



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-442
CASHIE-EARLEYS 230 KV
35 MW Capacity / 35 MW Energy**

January 2021

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1 Introduction

This Feasibility Study has been prepared in accordance with the PJM Open Access Transmission Tariff, 36.2, as well as the Feasibility Study Agreement between the Interconnection Customer (IC), and PJM Interconnection, LLC (PJM), Transmission Provider (TP). The Interconnected Transmission Owner (ITO) is Dominion.

2 Preface

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

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

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 an uprate to a planned Solar generating facility located in Bertie, North Carolina. This project is an increase to the Interconnection Customer's AG1-437 project, which will share the same point of interconnection. The AG1-442 queue position is a 35 MW battery storage uprate (35 MW Capacity uprate) to the previous project. The total installed facilities will have a capability of 135 MW with 95 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this uprate project is December 31, 2023. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-442
Project Name	CASHIE-EARLEYS 230 KV
State	North Carolina
County	Bertie
Transmission Owner	Dominion
MFO	135
MWE	35
MWC	35
Fuel	Storage
Basecase Study Year	2024

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

4 Point of Interconnection

4.1 Primary Point of Interconnection

AG1-442 will interconnect with the Dominion transmission system as a Battery Storage uprate to AG1-437 which is tapping the Earleys to Cashie 230 kV line.

4.2 Secondary Point of Interconnection

The secondary POI for AG1-442 is a direct connect to the Cashie 230 kV substation.

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

5 Cost Summary

The AG1-442 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$0
Total System Network Upgrade Costs	\$877,835,000 ¹
Total Costs	\$877,835,000

This cost excludes a Federal Income Tax Gross Up charges. This tax may or may not be charged based on whether this project meets the eligibility requirements of IRS Notice 2016-36, 2016-25 I.R.B. (6/20/2016). If at a future date it is determined that the Federal Income Tax Gross charge is required, the Transmission Owner shall be reimbursed by the Interconnection Customer for such taxes.

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

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

6 Transmission Owner Scope of Work

The required Attachment Facilities, Direct Connection and Non-Direct Connection work for the interconnection of AG1-442 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
Total Physical Interconnection Costs	\$0

AG1-442 "Cashie-Earleys 230 kV" will interconnect with the Dominion transmission system as an uprate to AG1-437, sharing the POI and Attachment Facilities.

As AG1-442 is sharing the POI and Attachment Facilities with AG1-437, there are no associated interconnection costs for this project. Should the AG1-437 project withdraw from the Interconnection Queue, the AG1-442 project will assume the Attachment, Direct Connection, and Non-Direct Connection costs identified in the AG1-437 study report for connection to the Dominion system.

It is estimated to take 18-30 months to complete this work upon execution of an Interconnection Construction Service Agreement (ICSA). These preliminary cost estimates are based on typical engineering costs. A more detailed engineering cost estimates are normally done when the IC provides an exact site plan location for the generation substation during the Facility Study phase.

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

7 Schedule

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

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

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

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

8 Transmission Owner Analysis

Dominion assessed the impact of the proposed AG1-442 for compliance with NERC Reliability Criteria on the Dominion Transmission System. The system was assessed using the summer 2024 AG1 case provided to Dominion by PJM.

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

<http://www.dominionenergy.com>.

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

8.1 Power Flow Analysis

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

9 Interconnection Customer Requirements

9.1 System Protection

The IC must design its Customer Facilities in accordance with all applicable standards, including the standards in Dominion’s “Dominion Energy Electric Transmission Generator Interconnection Requirements” documented in Dominion’s Facility Interconnection Requirements “Exhibit C” located at:

<https://www.dominionenergy.com/company/moving-energy/electric-transmission-access>. Preliminary Protection requirements will be provided as part of the Facilities Study. Detailed Protection Requirements will be provided once the project enters the construction phase.

9.2 Compliance Issues and Interconnection Customer Requirements

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

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

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

The IC will also be required to meet all PJM, SERC, and NERC reliability criteria and operating procedures for standards compliance. For example, the IC will need to properly locate and report the over and under voltage and over and under frequency system protection elements for its units as well as the submission of the generator model and protection data required to satisfy the PJM and SERC audits. Failure to comply with

these requirements may result in a disconnection of service if the violation is found to compromise the reliability of the Dominion system.

9.3 Power Factor Requirements

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

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Interconnected Transmission Owner Requirements

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

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

11 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AG1-442 was evaluated as a 35.0 MW (Capacity 35.0 MW) injection as an uprate to AG1-437 which is tapping the Earleys to Cashie 230 kV line in the Dominion area. Project AG1-442 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-442 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)

None

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	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/D C	MW IMPACT
168527058	313701	6CHINQUAPIN	230.0	DVP	314609	6TARBORO	230.0	DVP	1	DVP_P1-2: LN 218	single	441.799987793	106.41	107.52	DC	4.91
168526974	313714	6PERQUIMANS	230.0	DVP	314662	6SHERTFORD	230.0	DVP	1	Base Case	single	733.200012207	151.17	152.48	DC	9.58
168526986	313725	6DRY BREAD	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	single	375.059997559	162.54	163.56	DC	3.83
168526999	313885	6WALBMRL	230.0	DVP	313714	6PERQUIMANS	230.0	DVP	1	Base Case	single	733.200012207	146.31	147.62	DC	9.59
168832170	314203	6MACKEYS	230.0	DVP	314637	6EDENTON	230.0	DVP	1	Base Case	single	731.320007324	146.67	147.98	DC	9.59
163841846	314554	3BTLEBRO	115.0	DVP	304223	3ROCKYMT115T	115.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	164.0	325.77	326.39	DC	2.25
169038797	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P1-2: LN 246-B	single	375.059997559	108.14	110.11	DC	7.41
169038798	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P1-2: LN 246-A	single	375.059997559	106.71	108.68	DC	7.41
169038815	314564	6EDGECOM	230.0	DVP	313845	6HATHAWAY	230.0	DVP	1	DVP_P1-2: LN 218	single	441.799987793	117.87	118.99	DC	4.91
169038675	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	236.22	238.48	DC	12.91
169038676	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	233.32	235.58	DC	12.91
169038678	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	Base Case	single	571.520019531	144.41	145.92	DC	8.66

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
169038805	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	2	DVP_P1-2: LN 2034-A	single	241.391983032	114.99	117.39	DC	5.81
169038806	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	2	DVP_P1-2: LN 2034-B	single	241.391983032	107.28	109.69	DC	5.81
163840984	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P4-2: 2020T2144	breaker	478.0	223.16	224.58	DC	6.82
163841159	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P1-2: LN 2167	single	478.0	151.19	152.53	DC	6.4
163841160	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P1-2: LN 2092	single	478.0	154.41	155.83	DC	6.81
163841164	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	Base Case	single	478.0	116.94	118.02	DC	5.12
163841849	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	478.0	227.34	228.62	DC	6.15
169038693	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	227.54	229.8	DC	12.91
169038694	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	224.65	226.91	DC	12.91
169038696	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	Base Case	single	571.520019531	135.71	137.23	DC	8.66
168527002	314583	6LAKEVIEW	230.0	DVP	313725	6DRY BREAD	230.0	DVP	1	DVP_P1-2: LN 2056-A	single	375.059997559	161.53	162.69	DC	4.34
168527003	314583	6LAKEVIEW	230.0	DVP	313725	6DRY BREAD	230.0	DVP	1	Base Case	single	375.059997559	146.64	147.67	DC	3.84
169038728	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	DVP_P1-2: LN 2034-A	single	269.779998779	158.81	162.3	DC	9.42
169038729	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	DVP_P1-2: LN 2034-B	single	269.779998779	147.64	151.13	DC	9.42
169038737	314614	3TRWBRDG 2	115.0	DVP	314596	3POPLR C	115.0	DVP	1	DVP_P1-2: LN 2034-A	single	285.760009766	149.58	152.88	DC	9.42
169038738	314614	3TRWBRDG 2	115.0	DVP	314596	3POPLR C	115.0	DVP	1	DVP_P1-2: LN 2034-B	single	285.760009766	139.07	142.37	DC	9.42
169038792	314616	6TRWBRDG	230.0	DVP	314614	3TRWBRDG2	115.0	DVP	1	DVP_P1-2: LN 2034-A	single	182.36000061	114.29	117.49	DC	5.84
169038793	314616	6TRWBRDG	230.0	DVP	314614	3TRWBRDG2	115.0	DVP	1	DVP_P1-2: LN 2034-B	single	182.36000061	104.1	107.3	DC	5.84
168526993	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	Base Case	single	733.200012207	146.32	147.63	DC	9.59
169249896	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P1-2: LN 247	single	571.520019531	177.82	179.23	DC	8.04
169249898	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P1-2: LN 2144	single	571.520019531	159.69	161.1	DC	8.05
169249909	314662	6S HERTFORD	230.0	DVP	314651	6WINFALL	230.0	DVP	1	Base Case	single	733.200012207	152.03	153.34	DC	9.58
168832115	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	231.87	234.13	DC	12.91

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168832116	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	228.98	231.24	DC	12.91
168832118	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	Base Case	single	571.520019531	140.1	141.61	DC	8.66
169038663	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	252.62	257.8	DC	29.56
169038664	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	247.6	252.77	DC	29.57
169038666	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	Base Case	single	571.520019531	129.56	133.46	DC	22.29
170036864	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	234.39	239.56	DC	29.56
170036865	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	229.36	234.54	DC	29.57
170036867	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	Base Case	single	571.520019531	113.27	117.17	DC	22.29

11.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168527056	313701	6CHINQUAPI N	230.0	DVP	314609	6TARBORO	230.0	DVP	1	DVP_P1-2: LN 218	operation	441.799987793	170.44	171.56	DC	4.91
168526971	313714	6PERQUIMANS	230.0	DVP	314662	6S HERTFORD	230.0	DVP	1	Base Case	operation	733.200012207	218.11	219.42	DC	9.58
168527435	313724	3TERRA	115.0	DVP	314592	3PANTEGO	115.0	DVP	1	DVP_P1-2: LN 2034-A	operation	74.2600021362	101.6	102.99	DC	1.95
168526984	313725	6DRY BREAD	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	operation	375.059997559	226.97	227.99	DC	3.83
168527318	313857	6WINDSORDP	230.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P1-2: LN 246-B	operation	547.08001709	115.44	116.75	DC	7.2
168527319	313857	6WINDSORDP	230.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P1-2: LN 246-A	operation	547.08001709	115.44	116.75	DC	7.2
168526996	313885	6WALBMRL	230.0	DVP	313714	6PERQUIMANS	230.0	DVP	1	Base Case	operation	733.200012207	194.21	195.51	DC	9.59
168832167	314203	6MACKEYS	230.0	DVP	314637	6EDENTON	230.0	DVP	1	Base Case	operation	731.320007324	194.69	196.0	DC	9.59

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE C T LOADIN G %	POST PROJE C T LOADIN G %	AC/D C	MW IMPAC T
168832175	314203	6MACKEYS	230.0	DVP	314594	6PLYMOTH	230.0	DVP	1	Base Case	operati on	789.599975586	104.34	105.56	DC	9.6
169038794	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	375.059997559	177.22	179.19	DC	7.41
169038796	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	Base Case	operati on	375.059997559	118.45	119.86	DC	5.27
169038813	314564	6EDGECOM	230.0	DVP	313845	6HATHAWA Y	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	171.03	172.14	DC	4.91
168527343	314569	6EARLEYS	230.0	DVP	313857	6WINDSORD P	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	112.65	113.91	DC	7.2
169038673	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	326.57	328.83	DC	12.91
169038677	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	Base Case	operati on	571.520019531	193.82	195.34	DC	8.66
169038803	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	2	DVP_P 1-2: LN 2034-A	operati on	241.391983032	180.29	182.7	DC	5.81
169038882	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	274.855987549	143.95	145.97	DC	5.54
163841153	314574	6EVERETS	230.0	DVP	304451	6GREENVILE T	230.0	CPL E	1	DVP_P 1-2: LN 2092	operati on	478.0	220.98	222.41	DC	6.81
163841158	314574	6EVERETS	230.0	DVP	304451	6GREENVILE T	230.0	CPL E	1	Base Case	operati on	478.0	162.42	163.49	DC	5.12
169038958	314574	6EVERETS	230.0	DVP	927020	AC1-189 TAP	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	101.43	102.55	DC	4.92
169038691	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	317.9	320.16	DC	12.91
169038695	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	185.13	186.64	DC	8.66
168527000	314583	6LAKEVEW	230.0	DVP	313725	6DRY BREAD	230.0	DVP	1	DVP_P 1-2: LN 2056-A	operati on	375.059997559	220.61	221.77	DC	4.34
168527001	314583	6LAKEVEW	230.0	DVP	313725	6DRY BREAD	230.0	DVP	1	Base Case	operati on	375.059997559	207.09	208.11	DC	3.84
169038784	314583	6LAKEVEW	230.0	DVP	314561	6CAROLNA	230.0	DVP	1	Base Case	operati on	375.059997559	114.45	115.85	DC	5.27
168832446	314594	6PLYMOTH	230.0	DVP	314203	6MACKEYS	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	789.599975586	132.84	134.39	DC	12.2
169038757	314594	6PLYMOTH	230.0	DVP	314616	6TRWBRDG	230.0	DVP	1	Base Case	operati on	789.599975586	101.61	102.82	DC	9.6
169038726	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	269.779998779	243.71	247.2	DC	9.42
169038730	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	Base Case	operati on	247.220001221	111.57	112.04	DC	2.57
169038847	314609	6TARBORO	230.0	DVP	314610	6TOTDP4	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	157.01	158.13	DC	4.91
169038851	314610	6TOTDP4	230.0	DVP	314564	6EDGECOM	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	154.55	155.66	DC	4.91
169038735	314614	3TRWBRDG 2	115.0	DVP	314596	3POPLR C	115.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	285.760009766	229.73	233.02	DC	9.42
169038707	314616	6TRWBRDG	230.0	DVP	933990	AD1-023 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	154.05	156.28	DC	12.71

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPAC T
169038790	314616	6TRWBRDG	230.0	DVP	314614	3TRWBRDG2	115.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	182.36000061	188.3	191.5	DC	5.84
169038897	314616	6TRWBRDG	230.0	DVP	314594	6PLYMOTH	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	789.599975586	135.58	137.13	DC	12.2
169038689	314620	6CASHIE	230.0	DVP	965690	AG1-437 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	162.57	164.79	DC	12.71
169038966	314620	6CASHIE	230.0	DVP	933990	AD1-023 TAP	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	102.39	105.06	DC	15.22
168526990	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	Base Case	operati on	733.200012207	194.22	195.53	DC	9.59
169249894	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P 1-2: LN 247	operati on	571.520019531	281.03	282.44	DC	8.04
169249906	314662	6S HERTFORD	230.0	DVP	314651	6WINFALL	230.0	DVP	1	Base Case	operati on	733.200012207	218.97	220.28	DC	9.58
168527273	927020	AC1-189 TAP	230.0	DVP	313701	6CHINQUAPI N	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	119.07	120.19	DC	4.92
169038683	933990	AD1-023 TAP	230.0	DVP	314620	6CASHIE	230.0	DVP	1	Base Case	operati on	571.520019531	164.7	166.93	DC	12.71
169038938	933990	AD1-023 TAP	230.0	DVP	314616	6TRWBRDG	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	112.69	115.36	DC	15.22
168832113	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	323.35	325.61	DC	12.91
168832117	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	Base Case	operati on	571.520019531	191.12	192.63	DC	8.66
169038661	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	383.67	388.84	DC	29.56
169038665	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	Base Case	operati on	571.520019531	201.39	205.29	DC	22.29
169038962	965690	AG1-437 TAP	230.0	DVP	314620	6CASHIE	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	104.51	107.18	DC	15.22
170036862	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	360.87	366.04	DC	29.56
170036866	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	183.56	187.46	DC	22.29

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
169038678,169038676,169038675	9	6EARLEYS 230.0 kV - 6NUCO TP 230.0 kV Ckt 1	<u>DVP</u> n6138 (1695) : Rebuild 13.7 miles of 230 kV Line 246 from Earleys to Nucor Tap with 2-636 ACSR. Project Type : FAC Cost : \$20,550,000 Time Estimate : 30-36 Months dom-315 (1846) : Rebuild 13.7 miles of 230 kV Line 246 from Earleys to Nucor Tap with 2-768.2 ACSS 250 C. Replace Wave Trap and Line Lead at Earleys terminal. Replace Line Switch at Nucor Tap Terminal. Project Type : FAC Cost : \$21,000,000 Time Estimate : 36-40 Months	\$41,550,000
169038805,169038806	10	3EVERETS 115.0 kV - 6EVERETS 230.0 kV Ckt 2	<u>DVP</u> dom-316 (1847) : Add additional 230/115 kV transformer at Everetts substation. Project Type : CON Cost : \$7,000,000 Time Estimate : 16-18 Months	\$7,000,000
168526999	4	6WALBMRL 230.0 kV - 6PERQUIMANS 230.0 kV Ckt 1	<u>DVP</u> dom-203 (1734) : Wreck and rebuild 16.7 miles of existing single circuit line 2131 between Mackeys to Perquimans 230 kV. Add new circuit between Mackeys to Perquimans 230 kV, constructed as a double circuit line. Utilize 2-636 ACSR for all new and modified circuits. Add a breaker at each 230 kV terminal. Project Type : CON Cost : \$44,150,000 Time Estimate : 36-40 Months	\$44,150,000
168526993	17	6EDENTON 230.0 kV - 6WALBMRL 230.0 kV Ckt 1		
168832170	5	6MACKEYS 230.0 kV - 6EDENTON 230.0 kV Ckt 1		
168832118,168832115,168832116	20	AF2-076 TAP 230.0 kV - 6SUFFOLK 230.0 kV Ckt 1	<u>DVP</u> dom-243 (1774) : Rebuild 2.8 miles of 230 kV Line 246 from AF2-076 Tap to Suffolk with 2-768 ACSS. Project Type : FAC Cost : \$4,200,000 Time Estimate : 36-40 Months dom-408 (1939) : Rebuild 2.8 miles of 230 kV Line 246 from AF2-076 Tap to Suffolk with 2-768.2 ACSS 250 C. Replace Wave Trap at Suffolk terminal Project Type : FAC Cost : \$4,400,000 Time Estimate : 30-36 Months	\$8,600,000

ID	Idx	Facility	Upgrade Description	Cost
168527002,168527003	13	6LAKEVEW 230.0 kV - 6DRY BREAD 230.0 kV Ckt 1	<u>DVP</u> b3121 (1473) : PJM Baseline Upgrade b3121. Rebuild Clubhouse-Lakeview 230 kV Line #254 with single-circuit wood pole equivalent structures at the current 230 kV standard with a minimum rating of 1047 MVA. The baseline project has an projected in-service date of 12/31/2024. Project Type : FAC Cost : \$0	\$0
169249909	19	6S HERTFORD 230.0 kV - 6WINFALL 230.0 kV Ckt 1	<u>DVP</u> n6439 (1586) : Rebuild 3.3 miles of 230 kV Line 2131 from South Hertford to Winfall with 2-636 ACSR. Project Type : FAC Cost : \$4,950,000 Time Estimate : 30-36 Months n6438 (1581) : Rebuild 4.65 miles of 230 kV Line 2131 from Perquimans to South Hertford with 2-636 ACSR. Project Type : FAC Cost : \$6,975,000 Time Estimate : 30-36 Months	\$35,525,000
168526974	2	6PERQUIMANS 230.0 kV - 6S HERTFORD 230.0 kV Ckt 1	dom-257 (1788) : Wreck and rebuild 8.0 miles of existing single circuit line 2131 between Winfall to Perquimans 230 kV. Add new circuit between Winfall to Perquimans 230 kV, constructed as a double circuit line. Utilize 2-636 ACSR for all new and modified circuits. Add a Breaker at Perquimans 230 kV and two breakers at Winfall 230 kV. Project Type : CON Cost : \$23,600,000 Time Estimate : 30-36 Months	
170036867,170036864,170036865	22	AG1-437 TAP 230.0 kV - AG1- 312 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-419 (1950) : Rebuild 15.2 miles of 230 kV Line 2034 from AG1-437 Tap to AG1-312 Tap with 2-768.2 ACSS 250 C Project Type : FAC Cost : \$22,800,000 Time Estimate : 36-40 Months	\$22,800,000
169038737,169038738	15	3TRWBRDG2 115.0 kV - 3POPLR C 115.0 kV Ckt 1	<u>DVP</u> dom-176 (1659) : Reconductor 7.4 miles of 115 kV Line 25 from Trowbridge to Poplar Chapel with 768 ACSS. Replace Wave trap, relay, circuit breaker switch, and circuit breaker lead at Trowbridge. Project Type : FAC Cost : \$4,910,000 Time Estimate : 30-36 Months dom-254 (1785) : Reconductor 7.4 miles of 115 kV Line 25 from Trowbridge to Poplar Chapel with 2-768.2 ACSS 250C. Upgrade Breaker Lead, Wave trap, Relay (Secondary CT) and Line Lead at Trowbridge 115 kV. Upgrade Line Lead at Poplar Chapel 115 kV. Project Type : FAC Cost : \$4,710,000 Time Estimate : 36-40 Months	\$9,620,000

ID	Idx	Facility	Upgrade Description	Cost
169038729,169038728	14	3POPLR C 115.0 kV - 3EVERETS 115.0 kV Ckt 1	<u>DVP</u> dom-175 (1658) : Reconductor 13.4 miles of 115 kV Line 25 from Poplar Chapel to Everetts with 2-636 ACSR. Replace Wave trap, relay, circuit breaker switch, and circuit breaker lead at Everetts. Project Type : FAC Cost : \$8,510,000 Time Estimate : 30-36 Months	\$8,510,000
163841159,163841849,163840984,163841164,163841160	11	6EVERETS 230.0 kV - 6GREENVILE T 230.0 kV Ckt 1	<u>DVP</u> dom-173 (1656) : Rebuild 20.32 miles of 230 kV Line 218 from Everetts to Greenville with 2-636 ACSR Project Type : FAC Cost : \$30,480,000 Time Estimate : 30-36 Months	\$30,480,000
163841846	6	3BTLEBRO 115.0 kV - 3ROCKYMT115T 115.0 kV Ckt 1	<u>DVP</u> dom-007 (1179) : Build new 500 kV line between Everetts and Suffolk. Project Type : CON Cost : \$570,000,000 Time Estimate : 48-60 Months <u>DEP</u> The external (i.e. Non-PJM) Transmission Owner, DEP, will not evaluate this violation until the impact study phase. Scope: Reconductor the circuit to 1590 ACSR will bring the rating to 185/205/214 MVA. Upgrading the terminal equipment at Rocky Mount will bring the rating to 301/301/301 MVA (Limited by 1590 ACSR conductor). Project Type: FAC Cost: TBD Time Estimate: 36 Months Note 1: Mitigations have been identified to achieve a DEP end rating of 301/301/301 MVA. However, no queue customer has yet officially agreed to construct the upgrade. Therefore, no construction plans have been put in place to date. Note 2: PJM is coordinating with Duke Energy Progress (DEP) and Dominion Energy (DVP) to evaluate remedies to alleviate the higher loading seen in the AG1 study on the Battleboro to Rocky Mountain 115 kV line. Reinforcements for the PJM queue project driving the need for this upgrade have been scoped while the best solution for the loading seen in AG1 is still being evaluated by both DEP and DVP.	\$570,000,000
169038815	8	6EDGECOM 230.0 kV - 6HATHAWAY 230.0 kV Ckt 1	<u>DVP</u> dom-314 (1845) : Rebuild 0.28 miles of 230 kV Line 2167 from Edgecombe to Hathaway with 2-636 ACSS 150 C Project Type : FAC Cost : \$420,000 Time Estimate : 30-36 Months	\$420,000

ID	Idx	Facility	Upgrade Description	Cost
169038797,169038798	7	6CAROLNA 230.0 kV - 6LAKEVEW 230.0 kV Ckt 1	<u>DVP</u> dom-220 (1751) : Rebuild 1.37 miles of 230 kV Line 2141 from Carolina to Lakeview with 2-636 ACSR. Project Type : FAC Cost : \$2,055,000 Time Estimate : 30-36 Months	\$2,055,000
168526986	3	6DRY BREAD 230.0 kV - 6CLUBHSE 230.0 kV Ckt 1	<u>DVP</u> dom-270 (1801) : Rebuild 1.45 miles of 230 kV Line 2201 from Dry bread to Clubhouse with 2-636 ACSR 150 C. Replace Line Lead at Clubhouse terminal. Project Type : FAC Cost : \$2,175,000 Time Estimate : 30-36 Months	\$2,175,000
169038693,169038694,169038696	12	6NUCO TP 230.0 kV - AF2-076 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-317 (1848) : Rebuild 26.63 miles of 230 kV Line 246 from Nucor Tap to AF2-076 Tap with 2-768.2 ACSS 250 C. Replace Line Switch at Nucor Tap terminal. Project Type : FAC Cost : \$40,195,000 Time Estimate : 36-40 Months	\$40,195,000
169038792,169038793	16	6TRWBRDG 230.0 kV - 3TRWBRDG2 115.0 kV Ckt 1	<u>DVP</u> dom-325 (1856) : Replace the 115/230 kV Transformer at Trowbridge Project Type : CON Cost : \$4,500,000 Time Estimate : 16-18 Months	\$4,500,000
169038664,169038666,169038663	21	AG1-312 TAP 230.0 kV - 6EARLEYS 230.0 kV Ckt 1	<u>DVP</u> dom-417 (1948) : Wreck and Rebuild 3.5 miles of 230 kV Line 2034 from AG1-312 to Earleys as a double circuit (6 wire) with 2-636 ACSR on each circuit. Replace Wave Trap, Relay (Secondary CT), Line lead at Earleys terminal. Project Type : FAC Cost : \$9,070,000 Time Estimate : 30-36 Months	\$9,070,000

ID	Idx	Facility	Upgrade Description	Cost
169249896,169 249898	18	6ELIZ CT 230.0 kV - 6SHAWBRO 230.0 kV Ckt 1	<u>DVP</u> n6218 (1489) : Rebuild 10.28 miles of 230 kV Line 2021 from Elizabeth City to Shawboro with 2-636 ACSR. Project Type : FAC Cost : \$15,420,000 Time Estimate : 30-36 Months dom-255 (1786) : Rebuild 10.28 miles of 230 kV Line 2021 from Elizabeth City to Shawboro with 2-768.2 ACSS 250C. Replace Breaker, Breaker Lead, Wave Trap and Line lead at Elizabeth City 230 kV. Replace Wave trap, relay (Secondary CT), Line Lead at Shawboro 230 kV. Project Type : FAC Cost : \$17,140,000 Time Estimate : 36-40 Months	\$32,560,000
168527058	1	6CHINQUAPIN 230.0 kV - 6TARBORO 230.0 kV Ckt 1	<u>DVP</u> dom-260 (1791) : Rebuild 5.75 miles of 230 kV line 2177 from Chinquapin to Tarboro with 2-636 ACSR 150 C Project Type : FAC Cost : \$8,625,000 Time Estimate : 36-42 Months	\$8,625,000
			TOTAL COST	\$877,835,000

11.6 Flow Gate Details - Primary POI

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168527058	313701	6CHINQUAPIN	DVP	314609	6TARBORO	DVP	1	DVP_P1-2: LN 218	single	441.8	106.41	107.52	DC	4.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1110	80/20	0.1110
314582	3KELFORD	0.1341	80/20	0.1341
314589	3MURPHYS	0.0308	80/20	0.0308
314638	6ELIZ CT	0.0649	80/20	0.0649
314639	6TANGLEW	0.1296	80/20	0.1296
315292	1DOMTR78	1.4959	80/20	1.4959
315293	1DOMTR9	7.7369	80/20	7.7369
315294	1DOMTR10	9.4815	80/20	9.4815
315601	1CONETOE2SOL	5.0246	80/20	5.0246
315602	1HOLLOMANSOL	1.1697	80/20	1.1697
315605	6W1-029WIND	0.3945	80/20	0.3945
315611	6Z1-036WIND	0.5193	80/20	0.5193
315614	AA2-178 C	1.0665	80/20	1.0665
316140	AB2-099 C (Suspended)	0.3213	80/20	0.3213
925121	AB2-169 C	1.5079	80/20	1.5079
925591	AC1-034 C	-4.4790	Adder	-5.27
927024	AC1-189 C	27.7675	80/20	27.7675
933991	AD1-023 C	10.9720	80/20	10.9720
934521	AD1-076 C	45.6132	80/20	45.6132
936401	AD2-051 C O1	7.0515	80/20	7.0515
938221	AE1-035 C	0.2925	80/20	0.2925
940491	AE2-034 C	5.0698	80/20	5.0698

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941501	AE2-147 C	5.7708	80/20	5.7708
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1048	80/20	0.1048
943171	AE2-346 C	0.7711	80/20	0.7711
944871	AF1-152 C	1.9236	80/20	1.9236
945711	AF1-236 C O1	55.5025	80/20	55.5025
957521	AF2-046 C	6.6117	80/20	6.6117
957531	AF2-047 C	12.0469	80/20	12.0469
957861	AF2-080 C	25.2195	80/20	25.2195
959511	AF2-242 C	12.6968	80/20	12.6968
961681	AG1-008 C	6.6250	80/20	6.6250
961931	AG1-036 C	0.6466	80/20	0.6466
961941	AG1-037 C	0.2754	80/20	0.2754
962331	AG1-082 C	1.1016	80/20	1.1016
962341	AG1-083 C	1.1016	80/20	1.1016
962351	AG1-084 C	1.0726	80/20	1.0726
962361	AG1-085 C	1.0726	80/20	1.0726
964491	AG1-312 C O1	15.5355	80/20	15.5355
965631	AG1-431	32.1330	80/20	32.1330
965691	AG1-437 C O1	8.4240	80/20	8.4240
965701	AG1-438 C O1	8.4240	80/20	8.4240
965711	AG1-439 C O1	90.1350	80/20	90.1350
965741	AG1-442 O1	4.9140	80/20	4.9140
965751	AG1-443 O1	4.9140	80/20	4.9140
965761	AG1-444 O1	48.0720	80/20	48.0720
966801	AG1-551 C	4.4131	80/20	4.4131
966931	AG1-431A	24.1420	80/20	24.1420
G-007A	G-007A	0.6401	Confirmed LTF	0.6401
VFT	VFT	1.7092	Confirmed LTF	1.7092
CALDERWOOD	CALDERWOOD	0.6744	Confirmed LTF	0.6744
PRAIRIE	PRAIRIE	2.3066	Confirmed LTF	2.3066
CHEOAH	CHEOAH	0.6912	Confirmed LTF	0.6912
CBM-N	CBM-N	0.3108	Confirmed LTF	0.3108
COTTONWOOD	COTTONWOOD	2.4990	Confirmed LTF	2.4990
HAMLET	HAMLET	1.4900	Confirmed LTF	1.4900
GIBSON	GIBSON	0.4040	Confirmed LTF	0.4040
BLUEG	BLUEG	1.2447	Confirmed LTF	1.2447
TRIMBLE	TRIMBLE	0.3951	Confirmed LTF	0.3951
CATAWBA	CATAWBA	0.7270	Confirmed LTF	0.7270

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
168526974	313714	6PERQUIMANS	DVP	314662	6S HERTFORD	DVP	1	Base Case	single	733.2	151.17	152.48	DC	9.58

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1246	80/20	2.1246
313719	3CHESTNUT	0.5151	80/20	0.5151
314582	3KELFORD	0.2329	80/20	0.2329
314589	3MURPHYS	0.0369	80/20	0.0369
314623	3WITAKRS	0.0937	80/20	0.0937
315126	1ROARAP2	0.5104	80/20	0.5104
315128	1ROARAP4	0.4870	80/20	0.4870
315131	1EDGE CMA (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315132	1EDGE CMB (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315136	1ROSEMG1	0.8630	80/20	0.8630
315137	1ROSEMS1	0.5351	80/20	0.5351
315138	1ROSEMG2	0.4045	80/20	0.4045
315139	1GASTONA	1.2433	80/20	1.2433
315141	1GASTONB	1.2433	80/20	1.2433
315292	1DOMTR78	2.6036	80/20	2.6036
315293	1DOMTR9	13.4660	80/20	13.4660
315294	1DOMTR10	16.5025	80/20	16.5025
315601	1CONETOE2SOL	0.8384	80/20	0.8384
315602	1HOLLOMANSOL	1.2173	80/20	1.2173
315606	3AA2-053SOLA	0.6446	80/20	0.6446
315607	3AA1-063SOLA	0.4717	80/20	0.4717
315611	6Z1-036WIND	4.3262	80/20	4.3262
315614	AA2-178 C	4.4654	80/20	4.4654
316020	AB2-059 C OP	0.7145	80/20	0.7145
316087	AB2-174 C	0.3326	80/20	0.3326
316140	AB2-099 C (Suspended)	0.3830	80/20	0.3830
920591	AA2-165 C	0.0691	80/20	0.0691
922922	AB1-081 C OP	0.6063	80/20	0.6063
923991	AB2-040 C O1	2.3140	80/20	2.3140
925121	AB2-169 C	1.6118	80/20	1.6118
925591	AC1-034 C	2.9335	80/20	2.9335
926070	AC1-086 C	8.8619	80/20	8.8619
926201	AC1-098 C	3.2208	80/20	3.2208
926211	AC1-099 C	1.0793	80/20	1.0793
927024	AC1-189 C	5.8761	80/20	5.8761
927145	AC1-208 C	4.1533	80/20	4.1533
932631	AC2-084 C	4.5914	80/20	4.5914
933991	AD1-023 C	25.2059	80/20	25.2059
934331	AD1-057 C O1	4.3272	80/20	4.3272
934521	AD1-076 C	124.5182	80/20	124.5182

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936401	AD2-051 C O1	7.4382	80/20	7.4382
938221	AE1-035 C	0.3044	80/20	0.3044
940491	AE2-034 C	21.2276	80/20	21.2276
940571	AE2-044 C	1.9214	80/20	1.9214
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1247	80/20	0.1247
943171	AE2-346 C	0.9192	80/20	0.9192
944141	AF1-082	1.2352	80/20	1.2352
945711	AF1-236 C O1	232.3921	80/20	232.3921
957521	AF2-046 C	7.9171	80/20	7.9171
957531	AF2-047 C	50.4409	80/20	50.4409
957861	AF2-080 C	5.3369	80/20	5.3369
959511	AF2-242 C	9.7380	80/20	9.7380
961671	AG1-007 C	0.7133	80/20	0.7133
961681	AG1-008 C	7.9330	80/20	7.9330
961931	AG1-036 C	0.7722	80/20	0.7722
961941	AG1-037 C	0.3283	80/20	0.3283
962331	AG1-082 C	1.3132	80/20	1.3132
962341	AG1-083 C	1.3132	80/20	1.3132
962351	AG1-084 C	1.2770	80/20	1.2770
962361	AG1-085 C	1.2770	80/20	1.2770
962571	AG1-106 C	2.4644	80/20	2.4644
964491	AG1-312 C O1	18.8485	80/20	18.8485
964501	AG1-313 C O1	2.3791	80/20	2.3791
964801	AG1-343 C	1.8896	80/20	1.8896
965291	AG1-394 C	0.6020	80/20	0.6020
965631	AG1-431	134.5428	80/20	134.5428
965691	AG1-437 C O1	16.4232	80/20	16.4232
965701	AG1-438 C O1	16.4232	80/20	16.4232
965711	AG1-439 C O1	15.0405	80/20	15.0405
965741	AG1-442 O1	9.5802	80/20	9.5802
965751	AG1-443 O1	9.5802	80/20	9.5802
965761	AG1-444 O1	8.0216	80/20	8.0216
966801	AG1-551 C	2.4609	80/20	2.4609
966811	AG1-552 C	0.8103	80/20	0.8103
966931	AG1-431A	101.0840	80/20	101.0840
WEC	WEC	0.1518	Confirmed LTF	0.1518
LGEE	LGEE	0.3098	Confirmed LTF	0.3098
CPL	CPL	1.7581	Confirmed LTF	1.7581
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.1477	Confirmed LTF	0.1477
TVA	TVA	1.2166	Confirmed LTF	1.2166
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	18.9277	Confirmed LTF	18.9277
CBM-S1	CBM-S1	0.3044	Confirmed LTF	0.3044
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.5190	Confirmed LTF	1.5190
CBM-W1	CBM-W1	6.4071	Confirmed LTF	6.4071

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
168526986	313725	6DRY BREAD	DVP	314563	6CLUBHSE	DVP	1	Base Case	single	375.06	162.54	163.56	DC	3.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.9698	80/20	0.9698
314582	3KELFORD	0.2807	80/20	0.2807
314589	3MURPHYS	0.0540	80/20	0.0540
314623	3WITAKRS	0.1830	80/20	0.1830
315115	1S HAMPT1	0.5765	80/20	0.5765
315126	1ROARAP2	1.0936	80/20	1.0936
315128	1ROARAP4	1.0435	80/20	1.0435
315131	1EDGE CMA (Deactivation : 22/04/2019)	8.6188	80/20	8.6188
315132	1EDGE CMB (Deactivation : 22/04/2019)	8.6188	80/20	8.6188
315136	1ROSEMG1	3.7813	80/20	3.7813
315137	1ROSEMS1	2.3448	80/20	2.3448
315138	1ROSEMG2	1.7722	80/20	1.7722
315139	1GASTONA	5.8256	80/20	5.8256
315141	1GASTONB	5.8256	80/20	5.8256
315292	1DOMTR78	0.7593	80/20	0.7593
315293	1DOMTR9	3.9274	80/20	3.9274
315294	1DOMTR10	4.8130	80/20	4.8130
315601	1CONETOE2SOL	1.1056	80/20	1.1056
315602	1HOLLOMANSOL	1.1039	80/20	1.1039
315606	3AA2-053SOLA	1.1769	80/20	1.1769
315607	3AA1-063SOLA	0.9738	80/20	0.9738
315608	3AA2-088SOLA	0.5511	80/20	0.5511
315614	AA2-178 C	0.6482	80/20	0.6482
316020	AB2-059 C OP	1.4653	80/20	1.4653
316096	AB2-100 C1	3.2647	80/20	3.2647
316098	AB2-100 C2	3.2647	80/20	3.2647
316103	AB2-015 C	3.1140	80/20	3.1140
316129	AC1-054 C	3.7371	80/20	3.7371
316140	AB2-099 C (Suspended)	0.4301	80/20	0.4301
920591	AA2-165 C	0.1302	80/20	0.1302
922922	AB1-081 C OP	1.2433	80/20	1.2433
925121	AB2-169 C	0.6328	80/20	0.6328
925591	AC1-034 C	6.0158	80/20	6.0158
926070	AC1-086 C	41.5236	80/20	41.5236
926201	AC1-098 C	5.0737	80/20	5.0737
926211	AC1-099 C	1.7002	80/20	1.7002
927024	AC1-189 C	6.7717	80/20	6.7717
927145	AC1-208 C	7.5765	80/20	7.5765
932631	AC2-084 C	7.2328	80/20	7.2328
933991	AD1-023 C	7.8524	80/20	7.8524

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934331	AD1-057 C O1	14.1603	80/20	14.1603
934521	AD1-076 C	29.0650	80/20	29.0650
936401	AD2-051 C O1	7.1222	80/20	7.1222
938221	AE1-035 C	0.2760	80/20	0.2760
940491	AE2-034 C	3.0815	80/20	3.0815
940571	AE2-044 C	3.9402	80/20	3.9402
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1317	80/20	0.1317
943171	AE2-346 C	1.0322	80/20	1.0322
944141	AF1-082	2.5330	80/20	2.5330
945711	AF1-236 C O1	33.7355	80/20	33.7355
957521	AF2-046 C	10.8942	80/20	10.8942
957531	AF2-047 C	7.3223	80/20	7.3223
957861	AF2-080 C	6.1503	80/20	6.1503
959511	AF2-242 C	4.8267	80/20	4.8267
961091	AF2-400 C	0.1682	80/20	0.1682
961671	AG1-007 C	1.0507	80/20	1.0507
961681	AG1-008 C	10.9160	80/20	10.9160
961931	AG1-036 C	0.9432	80/20	0.9432
961941	AG1-037 C	0.3686	80/20	0.3686
962331	AG1-082 C	1.4746	80/20	1.4746
962341	AG1-083 C	1.4746	80/20	1.4746
962351	AG1-084 C	1.3486	80/20	1.3486
962361	AG1-085 C	1.3486	80/20	1.3486
962571	AG1-106 C	11.5474	80/20	11.5474
964491	AG1-312 C O1	14.1747	80/20	14.1747
964501	AG1-313 C O1	3.7047	80/20	3.7047
964801	AG1-343 C	3.4163	80/20	3.4163
965291	AG1-394 C	1.1503	80/20	1.1503
965631	AG1-431	19.5311	80/20	19.5311
965691	AG1-437 C O1	6.5604	80/20	6.5604
965701	AG1-438 C O1	6.5604	80/20	6.5604
965711	AG1-439 C O1	19.8330	80/20	19.8330
965721	AG1-440 C	2.5574	80/20	2.5574
965731	AG1-441 C	2.5574	80/20	2.5574
965741	AG1-442 O1	3.8269	80/20	3.8269
965751	AG1-443 O1	3.8269	80/20	3.8269
965761	AG1-444 O1	10.5776	80/20	10.5776
965771	AG1-445	1.4776	80/20	1.4776
965781	AG1-446	1.4776	80/20	1.4776
966751	AG1-546 C	8.7526	80/20	8.7526
966801	AG1-551 C	1.5567	80/20	1.5567
966811	AG1-552 C	1.7363	80/20	1.7363
966931	AG1-431A	14.6740	80/20	14.6740
WEC	WEC	0.2057	Confirmed LTF	0.2057
LGEE	LGEE	0.4197	Confirmed LTF	0.4197
CPL	CPL	2.5253	Confirmed LTF	2.5253
CBM-W2	CBM-W2	9.1123	Confirmed LTF	9.1123
NY	NY	0.2544	Confirmed LTF	0.2544
TVA	TVA	1.7206	Confirmed LTF	1.7206
SIGE	SIGE	0.1316	Confirmed LTF	0.1316
CBM-S2	CBM-S2	27.3737	Confirmed LTF	27.3737

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	0.4283	Confirmed LTF	0.4283
MEC	MEC	1.2362	Confirmed LTF	1.2362
LAGN	LAGN	2.1455	Confirmed LTF	2.1455
AA2-074	AA2-074	1.6677	LTF	1.6677
CBM-W1	CBM-W1	8.6223	Confirmed LTF	8.6223

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
168526999	313885	6WALBMRL	DVP	313714	6PERQUIMANS	DVP	1	Base Case	single	733.2	146.31	147.62	DC	9.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1331	80/20	2.1331
313719	3CHESTNUT	0.5165	80/20	0.5165
314582	3KELFORD	0.2333	80/20	0.2333
314589	3MURPHYS	0.0370	80/20	0.0370
314623	3WITAKRS	0.0940	80/20	0.0940
315126	1ROARAP2	0.5120	80/20	0.5120
315128	1ROARAP4	0.4886	80/20	0.4886
315131	1EDGECSMA (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315132	1EDGECSMB (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315136	1ROSEMG1	0.8655	80/20	0.8655
315137	1ROSEMS1	0.5367	80/20	0.5367
315138	1ROSEMG2	0.4057	80/20	0.4057
315139	1GASTONA	1.2468	80/20	1.2468
315141	1GASTONB	1.2468	80/20	1.2468
315292	1DOMTR78	2.6052	80/20	2.6052
315293	1DOMTR9	13.4746	80/20	13.4746
315294	1DOMTR10	16.5130	80/20	16.5130
315601	1CONETOESOL	0.8402	80/20	0.8402
315602	1HOLLOMANSOL	1.2190	80/20	1.2190
315606	3AA2-053SOLA	0.6464	80/20	0.6464
315607	3AA1-063SOLA	0.4733	80/20	0.4733
315614	AA2-178 C	4.4673	80/20	4.4673
316020	AB2-059 C OP	0.7167	80/20	0.7167
316087	AB2-174 C	0.3340	80/20	0.3340
316140	AB2-099 C (Suspended)	0.3837	80/20	0.3837
920591	AA2-165 C	0.0693	80/20	0.0693
922922	AB1-081 C OP	0.6081	80/20	0.6081
923991	AB2-040 C O1	2.3232	80/20	2.3232
925121	AB2-169 C	1.6131	80/20	1.6131
925591	AC1-034 C	2.9425	80/20	2.9425
926070	AC1-086 C	8.8866	80/20	8.8866
926201	AC1-098 C	3.2283	80/20	3.2283

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926211	AC1-099 C	1.0818	80/20	1.0818
927024	AC1-189 C	5.8874	80/20	5.8874
927145	AC1-208 C	4.1650	80/20	4.1650
932631	AC2-084 C	4.6021	80/20	4.6021
933991	AD1-023 C	25.2222	80/20	25.2222
934331	AD1-057 C O1	4.3394	80/20	4.3394
934521	AD1-076 C	124.5855	80/20	124.5855
936401	AD2-051 C O1	7.4492	80/20	7.4492
938221	AE1-035 C	0.3048	80/20	0.3048
940491	AE2-034 C	21.2365	80/20	21.2365
940571	AE2-044 C	1.9272	80/20	1.9272
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1250	80/20	0.1250
943171	AE2-346 C	0.9210	80/20	0.9210
944141	AF1-082	1.2389	80/20	1.2389
945711	AF1-236 C O1	232.4887	80/20	232.4887
957521	AF2-046 C	7.9381	80/20	7.9381
957531	AF2-047 C	50.4619	80/20	50.4619
957861	AF2-080 C	5.3471	80/20	5.3471
959511	AF2-242 C	9.7474	80/20	9.7474
961671	AG1-007 C	0.7149	80/20	0.7149
961681	AG1-008 C	7.9540	80/20	7.9540
961931	AG1-036 C	0.7739	80/20	0.7739
961941	AG1-037 C	0.3289	80/20	0.3289
962331	AG1-082 C	1.3157	80/20	1.3157
962341	AG1-083 C	1.3157	80/20	1.3157
962351	AG1-084 C	1.2792	80/20	1.2792
962361	AG1-085 C	1.2792	80/20	1.2792
962571	AG1-106 C	2.4713	80/20	2.4713
964491	AG1-312 C O1	18.8709	80/20	18.8709
964501	AG1-313 C O1	2.3849	80/20	2.3849
964801	AG1-343 C	1.8970	80/20	1.8970
965291	AG1-394 C	0.6046	80/20	0.6046
965631	AG1-431	134.5987	80/20	134.5987
965691	AG1-437 C O1	16.4358	80/20	16.4358
965701	AG1-438 C O1	16.4358	80/20	16.4358
965711	AG1-439 C O1	15.0720	80/20	15.0720
965741	AG1-442 O1	9.5876	80/20	9.5876
965751	AG1-443 O1	9.5876	80/20	9.5876
965761	AG1-444 O1	8.0384	80/20	8.0384
966801	AG1-551 C	2.4639	80/20	2.4639
966811	AG1-552 C	0.8130	80/20	0.8130
966931	AG1-431A	101.1260	80/20	101.1260
WEC	WEC	0.1581	Confirmed LTF	0.1581
LGEE	LGEE	0.3223	Confirmed LTF	0.3223
CPL	CPL	1.7718	Confirmed LTF	1.7718
CBM-W2	CBM-W2	6.6931	Confirmed LTF	6.6931
NY	NY	0.1366	Confirmed LTF	0.1366
TVA	TVA	1.2446	Confirmed LTF	1.2446
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	19.1365	Confirmed LTF	19.1365
CBM-S1	CBM-S1	0.3120	Confirmed LTF	0.3120

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
MEC	MEC	0.9327	Confirmed LTF	0.9327
LAGN	LAGN	1.5540	Confirmed LTF	1.5540
CBM-W1	CBM-W1	6.6875	Confirmed LTF	6.6875

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
168832170	314203	6MACKEYS	DVP	314637	6EDENTON	DVP	1	Base Case	single	731.32	146.67	147.98	DC	9.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1331	80/20	2.1331
313719	3CHESTNUT	0.5165	80/20	0.5165
314582	3KELFORD	0.2333	80/20	0.2333
314589	3MURPHYS	0.0370	80/20	0.0370
314623	3WITAKRS	0.0940	80/20	0.0940
315126	1ROARAP2	0.5120	80/20	0.5120
315128	1ROARAP4	0.4886	80/20	0.4886
315131	1EDGE CMA (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315132	1EDGE CMB (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315136	1ROSEMG1	0.8655	80/20	0.8655
315137	1ROSEMS1	0.5367	80/20	0.5367
315138	1ROSEMG2	0.4057	80/20	0.4057
315139	1GASTONA	1.2468	80/20	1.2468
315141	1GASTONB	1.2468	80/20	1.2468
315292	1DOMTR78	2.6052	80/20	2.6052
315293	1DOMTR9	13.4746	80/20	13.4746
315294	1DOMTR10	16.5130	80/20	16.5130
315601	1CONETOE2SOL	0.8402	80/20	0.8402
315602	1HOLLOMANSOL	1.2190	80/20	1.2190
315606	3AA2-053SOLA	0.6464	80/20	0.6464
315607	3AA1-063SOLA	0.4733	80/20	0.4733
315614	AA2-178 C	4.4673	80/20	4.4673
316020	AB2-059 C OP	0.7167	80/20	0.7167
316087	AB2-174 C	0.3340	80/20	0.3340
316140	AB2-099 C (Suspended)	0.3837	80/20	0.3837
920591	AA2-165 C	0.0693	80/20	0.0693
922922	AB1-081 C OP	0.6081	80/20	0.6081
923991	AB2-040 C O1	2.3232	80/20	2.3232
925121	AB2-169 C	1.6131	80/20	1.6131
925591	AC1-034 C	2.9425	80/20	2.9425
926070	AC1-086 C	8.8866	80/20	8.8866
926201	AC1-098 C	3.2283	80/20	3.2283
926211	AC1-099 C	1.0818	80/20	1.0818
927024	AC1-189 C	5.8874	80/20	5.8874

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927145	AC1-208 C	4.1650	80/20	4.1650
932631	AC2-084 C	4.6021	80/20	4.6021
933991	AD1-023 C	25.2222	80/20	25.2222
934331	AD1-057 C O1	4.3394	80/20	4.3394
934521	AD1-076 C	124.5855	80/20	124.5855
936401	AD2-051 C O1	7.4492	80/20	7.4492
938221	AE1-035 C	0.3048	80/20	0.3048
940491	AE2-034 C	21.2365	80/20	21.2365
940571	AE2-044 C	1.9272	80/20	1.9272
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1250	80/20	0.1250
943171	AE2-346 C	0.9210	80/20	0.9210
944141	AF1-082	1.2389	80/20	1.2389
945711	AF1-236 C O1	232.4887	80/20	232.4887
957521	AF2-046 C	7.9381	80/20	7.9381
957531	AF2-047 C	50.4619	80/20	50.4619
957861	AF2-080 C	5.3471	80/20	5.3471
959511	AF2-242 C	9.7474	80/20	9.7474
961671	AG1-007 C	0.7149	80/20	0.7149
961681	AG1-008 C	7.9540	80/20	7.9540
961931	AG1-036 C	0.7739	80/20	0.7739
961941	AG1-037 C	0.3289	80/20	0.3289
962331	AG1-082 C	1.3157	80/20	1.3157
962341	AG1-083 C	1.3157	80/20	1.3157
962351	AG1-084 C	1.2792	80/20	1.2792
962361	AG1-085 C	1.2792	80/20	1.2792
962571	AG1-106 C	2.4713	80/20	2.4713
964491	AG1-312 C O1	18.8709	80/20	18.8709
964501	AG1-313 C O1	2.3849	80/20	2.3849
964801	AG1-343 C	1.8970	80/20	1.8970
965291	AG1-394 C	0.6046	80/20	0.6046
965631	AG1-431	134.5987	80/20	134.5987
965691	AG1-437 C O1	16.4358	80/20	16.4358
965701	AG1-438 C O1	16.4358	80/20	16.4358
965711	AG1-439 C O1	15.0720	80/20	15.0720
965741	AG1-442 O1	9.5876	80/20	9.5876
965751	AG1-443 O1	9.5876	80/20	9.5876
965761	AG1-444 O1	8.0384	80/20	8.0384
966801	AG1-551 C	2.4639	80/20	2.4639
966811	AG1-552 C	0.8130	80/20	0.8130
966931	AG1-431A	101.1260	80/20	101.1260
WEC	WEC	0.1581	Confirmed LTF	0.1581
LGEE	LGEE	0.3223	Confirmed LTF	0.3223
CPL	CPL	1.7718	Confirmed LTF	1.7718
CBM-W2	CBM-W2	6.6931	Confirmed LTF	6.6931
NY	NY	0.1366	Confirmed LTF	0.1366
TVA	TVA	1.2446	Confirmed LTF	1.2446
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	19.1365	Confirmed LTF	19.1365
CBM-S1	CBM-S1	0.3120	Confirmed LTF	0.3120
MEC	MEC	0.9327	Confirmed LTF	0.9327
LAGN	LAGN	1.5540	Confirmed LTF	1.5540

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-W1	CBM-W1	6.6875	Confirmed LTF	6.6875

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
163841846	314554	3BTLEBRO	DVP	304223	3ROCKYMT115T	CPL	1	DVP_P7-1: LN 2058-2181	tower	164.0	325.77	326.39	DC	2.25

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1181	Adder	3.67
313719	3CHESTNUT	2.4261	50/50	2.4261
314541	3WATKINS	0.2172	Adder	0.26
314572	3EMPORIA	0.1704	Adder	0.2
314582	3KELFORD	0.3112	50/50	0.3112
314623	3WITAKRS	0.5240	50/50	0.5240
315126	1ROARAP2	0.8712	50/50	0.8712
315128	1ROARAP4	0.8314	50/50	0.8314
315131	1EDGE CMA (Deactivation : 22/04/2019)	12.5808	50/50	12.5808
315132	1EDGE CMB (Deactivation : 22/04/2019)	12.5808	50/50	12.5808
315136	1ROSEMG1	1.5086	50/50	1.5086
315137	1ROSEMS1	0.9355	50/50	0.9355
315138	1ROSEMG2	0.7070	50/50	0.7070
315139	1GASTONA	1.9383	50/50	1.9383
315141	1GASTONB	1.9383	50/50	1.9383
315293	1DOMTR9	2.0513	Adder	2.41
315294	1DOMTR10	2.5139	Adder	2.96
315601	1CONETOE2SOL	1.1895	50/50	1.1895
315606	3AA2-053SOLA	0.9246	50/50	0.9246
316020	AB2-059 C OP	4.4268	50/50	4.4268
316088	AB2-174 E	2.8075	Adder	3.3
316097	AB2-100 E1	1.0834	Adder	1.27
316099	AB2-100 E2	1.0834	Adder	1.27
316103	AB2-015 C	2.5912	Adder	3.05
316104	AB2-015 E	2.1248	Adder	2.5
316129	AC1-054 C	2.5555	Adder	3.01
316140	AB2-099 C (Suspended)	0.2729	Adder	0.32
316141	AB2-099 E (Suspended)	0.1170	Adder	0.14
900672	V4-068 E	0.1280	Adder	0.15
917332	Z2-043 E	0.9284	50/50	0.9284
917342	Z2-044 E	1.4235	50/50	1.4235
917512	Z2-088 E OP1	7.0561	50/50	7.0561
918492	AA1-063AE OP	2.0088	Adder	2.36
918512	AA1-065 E OP	1.4796	Adder	1.74
918532	AA1-067 E	0.2544	Adder	0.3

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919692	AA2-053 E OP	2.4062	50/50	2.4062
919702	AA2-057 E OP	7.2586	50/50	7.2586
920042	AA2-088 E OP	4.1496	Adder	4.88
920591	AA2-165 C	0.3257	50/50	0.3257
920592	AA2-165 E	0.9976	50/50	0.9976
922922	AB1-081 C OP	3.7561	50/50	3.7561
922923	AB1-081 E OP	10.2031	50/50	10.2031
923262	AB1-132 C OP (Suspended)	9.3820	50/50	9.3820
923263	AB1-132 E OP (Suspended)	4.0208	50/50	4.0208
923573	AB1-173 E OP	0.4862	Adder	0.57
923991	AB2-040 C O1	3.3959	Adder	4.0
923992	AB2-040 E O1	2.7785	Adder	3.27
924152	AB2-059 E OP	14.4544	50/50	14.4544
925122	AB2-169 E	1.8344	Adder	2.16
925591	AC1-034 C	18.1743	50/50	18.1743
925592	AC1-034 E	13.7104	50/50	13.7104
925785	AC1-054 E	1.1772	Adder	1.38
926070	AC1-086 C	13.8161	50/50	13.8161
926071	AC1-086 E	6.2881	50/50	6.2881
926201	AC1-098 C	8.8191	50/50	8.8191
926202	AC1-098 E	5.2539	50/50	5.2539
926211	AC1-099 C	2.9553	50/50	2.9553
926212	AC1-099 E	1.7357	50/50	1.7357
927024	AC1-189 C	6.2804	50/50	6.2804
927025	AC1-189 E	3.1284	50/50	3.1284
927145	AC1-208 C	14.0422	50/50	14.0422
927146	AC1-208 E	6.2100	50/50	6.2100
932631	AC2-084 C	12.5719	50/50	12.5719
932632	AC2-084 E	6.1921	50/50	6.1921
933991	AD1-023 C	4.0327	Adder	4.74
933992	AD1-023 E	2.1954	Adder	2.58
934331	AD1-057 C O1	10.5448	50/50	10.5448
934332	AD1-057 E O1	5.6251	50/50	5.6251
936401	AD2-051 C O1	3.2781	Adder	3.86
936402	AD2-051 E O1	1.4076	Adder	1.66
938222	AE1-035 E	0.4069	Adder	0.48
940571	AE2-044 C	11.9036	50/50	11.9036
940572	AE2-044 E	5.1016	50/50	5.1016
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2794	Adder	0.33
942471	AE2-260 C O1	5.1280	Adder	6.03
942472	AE2-260 E O1	7.2735	Adder	8.56
943171	AE2-346 C	0.6550	Adder	0.77
943172	AE2-346 E	0.2807	Adder	0.33
944141	AF1-082	7.6523	50/50	7.6523
946281	AF1-292 C	0.5743	Adder	0.68
946282	AF1-292 E	0.3872	Adder	0.46
957521	AF2-046 C	7.3234	Adder	8.62
957522	AF2-046 E	3.6837	Adder	4.33
957861	AF2-080 C	5.7041	50/50	5.7041
957862	AF2-080 E	2.5286	50/50	2.5286

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959511	AF2-242 C	2.4228	Adder	2.85
959512	AF2-242 E	1.8844	Adder	2.22
960081	AF2-299 C	0.9680	Adder	1.14
960082	AF2-299 E	0.6453	Adder	0.76
961091	AF2-400 C	0.1399	Adder	0.16
961092	AF2-400 E	0.2296	Adder	0.27
961671	AG1-007 C	1.2437	50/50	1.2437
961672	AG1-007 E	0.6945	50/50	0.6945
961681	AG1-008 C	3.8892	Adder	8.63
961682	AG1-008 E	1.9446	Adder	4.32
961931	AG1-036 C	0.3255	Adder	0.72
961932	AG1-036 E	0.2170	Adder	0.48
961941	AG1-037 C	0.1240	Adder	0.28
961942	AG1-037 E	0.0826	Adder	0.18
962331	AG1-082 C	0.4959	Adder	1.1
962332	AG1-082 E	0.3306	Adder	0.73
962341	AG1-083 C	0.4959	Adder	1.1
962342	AG1-083 E	0.3306	Adder	0.73
962351	AG1-084 C	0.4442	Adder	0.99
962352	AG1-084 E	0.2961	Adder	0.66
962361	AG1-085 C	0.4442	Adder	0.99
962362	AG1-085 E	0.2961	Adder	0.66
962571	AG1-106 C	3.8421	50/50	3.8421
962572	AG1-106 E	1.7424	50/50	1.7424
964491	AG1-312 C O1	3.5814	Adder	7.95
964492	AG1-312 E O1	0.8953	Adder	1.99
964501	AG1-313 C O1	2.8627	50/50	2.8627
964502	AG1-313 E O1	1.9084	50/50	1.9084
964801	AG1-343 C	1.2896	Adder	2.86
964802	AG1-343 E	1.0133	Adder	2.25
965291	AG1-394 C	0.4384	Adder	0.97
965292	AG1-394 E	0.2923	Adder	0.65
965691	AG1-437 C O1	1.7375	Adder	3.86
965692	AG1-437 E O1	1.1583	Adder	2.57
965701	AG1-438 C O1	1.7375	Adder	3.86
965702	AG1-438 E O1	1.1583	Adder	2.57
965711	AG1-439 C O1	21.3390	50/50	21.3390
965712	AG1-439 E O1	14.2260	50/50	14.2260
965741	AG1-442 O1	1.0135	Adder	2.25
965751	AG1-443 O1	1.0135	Adder	2.25
965761	AG1-444 O1	11.3808	50/50	11.3808
966621	AG1-532 C	0.2770	Adder	0.61
966622	AG1-532 E	0.1847	Adder	0.41
966751	AG1-546 C	3.1668	Adder	7.03
966752	AG1-546 E	1.6992	Adder	3.77
966801	AG1-551 C	0.4089	Adder	0.91
966802	AG1-551 E	0.1753	Adder	0.39
966811	AG1-552 C	1.3832	50/50	1.3832
966812	AG1-552 E	0.5928	50/50	0.5928
G-007A	G-007A	0.4867	Confirmed LTF	0.4867
VFT	VFT	1.2964	Confirmed LTF	1.2964
CALDERWOOD	CALDERWOOD	0.7087	Confirmed LTF	0.7087

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	2.4719	Confirmed LTF	2.4719
CHEOAH	CHEOAH	0.7262	Confirmed LTF	0.7262
CBM-N	CBM-N	0.2340	Confirmed LTF	0.2340
COTTONWOOD	COTTONWOOD	2.6313	Confirmed LTF	2.6313
HAMLET	HAMLET	1.5263	Confirmed LTF	1.5263
GIBSON	GIBSON	0.4390	Confirmed LTF	0.4390
BLUEG	BLUEG	1.3558	Confirmed LTF	1.3558
TRIMBLE	TRIMBLE	0.4307	Confirmed LTF	0.4307
CATAWBA	CATAWBA	0.7581	Confirmed LTF	0.7581

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
169038797	314561	6CAROLNA	DVP	314583	6LAKEVEW	DVP	1	DVP_P1-2: LN 246-B	single	375.06	108.14	110.11	DC	7.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	4.6941	80/20	4.6941
313527	AB2-043 C	0.1536	80/20	0.1536
313719	3CHESTNUT	0.5336	80/20	0.5336
314582	3KELFORD	0.4685	80/20	0.4685
314589	3MURPHYS	0.1105	80/20	0.1105
315115	1S HAMPT1	1.2216	80/20	1.2216
315126	1ROARAP2	2.3575	80/20	2.3575
315128	1ROARAP4	2.2497	80/20	2.2497
315158	1KERR 1	0.2431	80/20	0.2431
315159	1KERR 2	0.6807	80/20	0.6807
315160	1KERR 3	0.6807	80/20	0.6807
315161	1KERR 4	0.6807	80/20	0.6807
315162	1KERR 5	0.6807	80/20	0.6807
315163	1KERR 6	0.6807	80/20	0.6807
315164	1KERR 7	0.6807	80/20	0.6807
315292	1DOMTR78	1.2134	80/20	1.2134
315293	1DOMTR9	6.2759	80/20	6.2759
315294	1DOMTR10	7.6910	80/20	7.6910
315602	1HOLLOMANSOL	2.2377	80/20	2.2377
315605	6W1-029WIND	0.3283	80/20	0.3283
315606	3AA2-053SOLA	2.4969	80/20	2.4969
315607	3AA1-063SOLA	2.0829	80/20	2.0829
315608	3AA2-088SOLA	1.1592	80/20	1.1592
315611	6Z1-036WIND	0.5090	80/20	0.5090
315614	AA2-178 C	1.1884	80/20	1.1884
316087	AB2-174 C	0.5243	80/20	0.5243
316103	AB2-015 C	6.6190	80/20	6.6190
316129	AC1-054 C	8.4029	80/20	8.4029
316131	AB2-060 C	0.4354	80/20	0.4354

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316140	AB2-099 C (Suspended)	0.8485	80/20	0.8485
920591	AA2-165 C	0.0716	80/20	0.0716
923991	AB2-040 C O1	5.1124	80/20	5.1124
924301	AB2-077 C O1 (Suspended)	0.6358	80/20	0.6358
924311	AB2-078 C O1 (Suspended)	0.6358	80/20	0.6358
924321	AB2-079 C O1 (Suspended)	0.6358	80/20	0.6358
925121	AB2-169 C	0.8646	80/20	0.8646
926201	AC1-098 C	6.0713	80/20	6.0713
926211	AC1-099 C	2.0345	80/20	2.0345
927024	AC1-189 C	3.1025	80/20	3.1025
927145	AC1-208 C	8.6219	80/20	8.6219
932631	AC2-084 C	8.6548	80/20	8.6548
933991	AD1-023 C	14.8547	80/20	14.8547
934521	AD1-076 C	52.9796	80/20	52.9796
936361	AD2-046 C O1	5.1638	80/20	5.1638
936401	AD2-051 C O1	14.3728	80/20	14.3728
938221	AE1-035 C	0.5595	80/20	0.5595
938771	AE1-103 C	2.1588	80/20	2.1588
939181	AE1-148 C	4.9961	80/20	4.9961
940491	AE2-034 C	5.6494	80/20	5.6494
940661	AE2-053 O1	1.8504	80/20	1.8504
941501	AE2-147 C	4.8024	80/20	4.8024
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2573	80/20	0.2573
942451	AE2-258	0.7262	80/20	0.7262
943171	AE2-346 C	2.0363	80/20	2.0363
944871	AF1-152 C	1.6008	80/20	1.6008
945711	AF1-236 C O1	61.8477	80/20	61.8477
957521	AF2-046 C	22.1187	80/20	22.1187
957531	AF2-047 C	13.4241	80/20	13.4241
957861	AF2-080 C	2.8179	80/20	2.8179
959511	AF2-242 C	5.9220	80/20	5.9220
961091	AF2-400 C	0.3574	80/20	0.3574
961681	AG1-008 C	22.1630	80/20	22.1630
961851	AG1-027 C	5.4782	80/20	5.4782
961931	AG1-036 C	1.8847	80/20	1.8847
961941	AG1-037 C	0.7273	80/20	0.7273
962331	AG1-082 C	2.9090	80/20	2.9090
962341	AG1-083 C	2.9090	80/20	2.9090
962351	AG1-084 C	2.6338	80/20	2.6338
962361	AG1-085 C	2.6338	80/20	2.6338
964491	AG1-312 C O1	28.5264	80/20	28.5264
964501	AG1-313 C O1	7.7117	80/20	7.7117
964801	AG1-343 C	7.1442	80/20	7.1442
965291	AG1-394 C	2.4179	80/20	2.4179
965631	AG1-431	35.8066	80/20	35.8066
965691	AG1-437 C O1	12.7080	80/20	12.7080
965701	AG1-438 C O1	12.7080	80/20	12.7080
965721	AG1-440 C	6.0395	80/20	6.0395
965731	AG1-441 C	6.0395	80/20	6.0395

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965741	AG1-442 O1	7.4130	80/20	7.4130
965751	AG1-443 O1	7.4130	80/20	7.4130
965771	AG1-445	3.4895	80/20	3.4895
965781	AG1-446	3.4895	80/20	3.4895
966751	AG1-546 C	19.5474	80/20	19.5474
966801	AG1-551 C	1.7312	80/20	1.7312
966811	AG1-552 C	3.7431	80/20	3.7431
966931	AG1-431A	26.9020	80/20	26.9020
WEC	WEC	0.0353	Confirmed LTF	0.0353
LGEE	LGEE	0.0729	Confirmed LTF	0.0729
CPL	CPL	0.4402	Confirmed LTF	0.4402
CBM-W2	CBM-W2	1.4784	Confirmed LTF	1.4784
NY	NY	0.0426	Confirmed LTF	0.0426
TVA	TVA	0.2744	Confirmed LTF	0.2744
SIGE	SIGE	0.0225	Confirmed LTF	0.0225
CBM-S2	CBM-S2	4.3013	Confirmed LTF	4.3013
CBM-S1	CBM-S1	0.0692	Confirmed LTF	0.0692
MEC	MEC	0.2082	Confirmed LTF	0.2082
LAGN	LAGN	0.3430	Confirmed LTF	0.3430
CBM-W1	CBM-W1	1.4861	Confirmed LTF	1.4861

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
169038815	314564	6EDGECOM	DVP	313845	6HATHAWAY	DVP	1	DVP_P1-2: LN 218	single	441.8	117.87	118.99	DC	4.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1110	80/20	0.1110
314582	3KELFORD	0.1341	80/20	0.1341
314589	3MURPHYS	0.0308	80/20	0.0308
314638	6ELIZ CT	0.0649	80/20	0.0649
314639	6TANGLEW	0.1296	80/20	0.1296
315131	1EDGECEMA (Deactivation : 22/04/2019)	49.0668	80/20	49.0668
315132	1EDGECEMB (Deactivation : 22/04/2019)	49.0668	80/20	49.0668
315292	1DOMTR78	1.4959	80/20	1.4959
315293	1DOMTR9	7.7369	80/20	7.7369
315294	1DOMTR10	9.4815	80/20	9.4815
315601	1CONETOE2SOL	5.0246	80/20	5.0246
315602	1HOLLOMANSOL	1.1697	80/20	1.1697
315605	6W1-029WIND	0.3945	80/20	0.3945
315611	6Z1-036WIND	0.5193	80/20	0.5193
315614	AA2-178 C	1.0665	80/20	1.0665
316140	AB2-099 C (Suspended)	0.3213	80/20	0.3213

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925121	AB2-169 C	1.5079	80/20	1.5079
925591	AC1-034 C	-4.4790	Adder	-5.27
927024	AC1-189 C	27.7675	80/20	27.7675
933991	AD1-023 C	10.9720	80/20	10.9720
934521	AD1-076 C	45.6132	80/20	45.6132
936401	AD2-051 C O1	7.0515	80/20	7.0515
938221	AE1-035 C	0.2925	80/20	0.2925
940491	AE2-034 C	5.0698	80/20	5.0698
941501	AE2-147 C	5.7708	80/20	5.7708
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1048	80/20	0.1048
943171	AE2-346 C	0.7711	80/20	0.7711
944871	AF1-152 C	1.9236	80/20	1.9236
945711	AF1-236 C O1	55.5025	80/20	55.5025
957521	AF2-046 C	6.6117	80/20	6.6117
957531	AF2-047 C	12.0469	80/20	12.0469
957861	AF2-080 C	25.2195	80/20	25.2195
959511	AF2-242 C	12.6968	80/20	12.6968
961671	AG1-007 C	5.1139	80/20	5.1139
961681	AG1-008 C	6.6250	80/20	6.6250
961931	AG1-036 C	0.6466	80/20	0.6466
961941	AG1-037 C	0.2754	80/20	0.2754
962331	AG1-082 C	1.1016	80/20	1.1016
962341	AG1-083 C	1.1016	80/20	1.1016
962351	AG1-084 C	1.0726	80/20	1.0726
962361	AG1-085 C	1.0726	80/20	1.0726
964491	AG1-312 C O1	15.5355	80/20	15.5355
965631	AG1-431	32.1330	80/20	32.1330
965691	AG1-437 C O1	8.4240	80/20	8.4240
965701	AG1-438 C O1	8.4240	80/20	8.4240
965711	AG1-439 C O1	90.1350	80/20	90.1350
965741	AG1-442 O1	4.9140	80/20	4.9140
965751	AG1-443 O1	4.9140	80/20	4.9140
965761	AG1-444 O1	48.0720	80/20	48.0720
966801	AG1-551 C	4.4131	80/20	4.4131
966931	AG1-431A	24.1420	80/20	24.1420
G-007A	G-007A	0.6401	Confirmed LTF	0.6401
VFT	VFT	1.7092	Confirmed LTF	1.7092
CALDERWOOD	CALDERWOOD	0.6744	Confirmed LTF	0.6744
PRAIRIE	PRAIRIE	2.3066	Confirmed LTF	2.3066
CHEOAH	CHEOAH	0.6912	Confirmed LTF	0.6912
CBM-N	CBM-N	0.3108	Confirmed LTF	0.3108
COTTONWOOD	COTTONWOOD	2.4990	Confirmed LTF	2.4990
HAMLET	HAMLET	1.4900	Confirmed LTF	1.4900
GIBSON	GIBSON	0.4040	Confirmed LTF	0.4040
BLUEG	BLUEG	1.2447	Confirmed LTF	1.2447
TRIMBLE	TRIMBLE	0.3951	Confirmed LTF	0.3951
CATAWBA	CATAWBA	0.7270	Confirmed LTF	0.7270

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
169038675	314569	GEARLEYS	DVP	314575	6NUCO TP	DVP	1	DVP_P1-2: LN 2092	single	571.52	236.22	238.48	DC	12.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	5.3764	80/20	5.3764
313527	AB2-043 C	0.1797	80/20	0.1797
313719	3CHESTNUT	1.2166	80/20	1.2166
314572	3EMPORIA	0.2919	80/20	0.2919
314582	3KELFORD	0.6058	80/20	0.6058
314589	3MURPHYS	0.0945	80/20	0.0945
314623	3WITAKRS	0.2162	80/20	0.2162
314704	3LAWRENC	0.1658	80/20	0.1658
315115	1S HAMPT1	0.4948	80/20	0.4948
315126	1ROARAP2	1.2875	80/20	1.2875
315128	1ROARAP4	1.2286	80/20	1.2286
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315136	1ROSEMG1	2.1445	80/20	2.1445
315137	1ROSEMS1	1.3298	80/20	1.3298
315138	1ROSEMG2	1.0051	80/20	1.0051
315139	1GASTONA	3.1370	80/20	3.1370
315141	1GASTONB	3.1370	80/20	3.1370
315158	1KERR 1	0.1949	80/20	0.1949
315159	1KERR 2	0.5458	80/20	0.5458
315160	1KERR 3	0.5458	80/20	0.5458
315161	1KERR 4	0.5458	80/20	0.5458
315162	1KERR 5	0.5458	80/20	0.5458
315163	1KERR 6	0.5458	80/20	0.5458
315164	1KERR 7	0.5458	80/20	0.5458
315292	1DOMTR78	2.6258	80/20	2.6258
315293	1DOMTR9	13.5807	80/20	13.5807
315294	1DOMTR10	16.6430	80/20	16.6430
315601	1CONETOE2SOL	1.7196	80/20	1.7196
315602	1HOLLOMAN SOL	3.2518	80/20	3.2518
315606	3AA2-053SOLA	1.6490	80/20	1.6490
315607	3AA1-063SOLA	1.1822	80/20	1.1822
315608	3AA2-088SOLA	0.6872	80/20	0.6872
315611	6Z1-036WIND	2.1843	80/20	2.1843
315614	AA2-178 C	3.1366	80/20	3.1366
316020	AB2-059 C OP	1.5978	80/20	1.5978
316087	AB2-174 C	0.8423	80/20	0.8423
316096	AB2-100 C1	0.5758	80/20	0.5758
316098	AB2-100 C2	0.5758	80/20	0.5758
316129	AC1-054 C	5.2403	80/20	5.2403

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316131	AB2-060 C	0.5087	80/20	0.5087
316140	AB2-099 C (Suspended)	1.0074	80/20	1.0074
920591	AA2-165 C	0.1633	80/20	0.1633
922922	AB1-081 C OP	1.3557	80/20	1.3557
923991	AB2-040 C O1	5.8555	80/20	5.8555
924301	AB2-077 C O1 (Suspended)	0.7260	80/20	0.7260
924311	AB2-078 C O1 (Suspended)	0.7260	80/20	0.7260
924321	AB2-079 C O1 (Suspended)	0.7260	80/20	0.7260
925121	AB2-169 C	1.8885	80/20	1.8885
925591	AC1-034 C	6.5600	80/20	6.5600
926070	AC1-086 C	22.3600	80/20	22.3600
926201	AC1-098 C	8.0404	80/20	8.0404
926211	AC1-099 C	2.6944	80/20	2.6944
927024	AC1-189 C	11.8698	80/20	11.8698
927145	AC1-208 C	10.1498	80/20	10.1498
932631	AC2-084 C	11.4618	80/20	11.4618
933991	AD1-023 C	28.1849	80/20	28.1849
934331	AD1-057 C O1	10.1494	80/20	10.1494
934521	AD1-076 C	113.8581	80/20	113.8581
936361	AD2-046 C O1	4.3133	80/20	4.3133
936401	AD2-051 C O1	19.8559	80/20	19.8559
936485	AD2-063 C	4.9392	80/20	4.9392
938221	AE1-035 C	0.8131	80/20	0.8131
939181	AE1-148 C	4.2104	80/20	4.2104
940481	AE2-033 C	4.4571	80/20	4.4571
940491	AE2-034 C	14.9108	80/20	14.9108
940571	AE2-044 C	4.2966	80/20	4.2966
940661	AE2-053 O1	1.5594	80/20	1.5594
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.3297	80/20	0.3297
942131	AE2-225 C	-1.0743	Adder	-1.26
942171	AE2-229 C	-0.8057	Adder	-0.95
942451	AE2-258	0.8499	80/20	0.8499
942471	AE2-260 C O1	8.2667	80/20	8.2667
943171	AE2-346 C	2.4178	80/20	2.4178
943611	AF1-032 C	-0.8773	Adder	-1.03
943911	AF1-059	8.1959	80/20	8.1959
944141	AF1-082	2.7621	80/20	2.7621
945711	AF1-236 C O1	163.2382	80/20	163.2382
946281	AF1-292 C	0.9810	80/20	0.9810
957491	AF2-043 C	-1.0743	Adder	-1.26
957521	AF2-046 C	20.4271	80/20	20.4271
957531	AF2-047 C	35.4310	80/20	35.4310
957861	AF2-080 C	10.7806	80/20	10.7806
959511	AF2-242 C	13.0307	80/20	13.0307
960081	AF2-299 C	1.6533	80/20	1.6533
961671	AG1-007 C	1.4833	80/20	1.4833
961681	AG1-008 C	20.4680	80/20	20.4680
961931	AG1-036 C	2.0158	80/20	2.0158
961941	AG1-037 C	0.8635	80/20	0.8635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962331	AG1-082 C	3.4540	80/20	3.4540
962341	AG1-083 C	3.4540	80/20	3.4540
962351	AG1-084 C	3.3758	80/20	3.3758
962361	AG1-085 C	3.3758	80/20	3.3758
962571	AG1-106 C	6.2181	80/20	6.2181
963301	AG1-179 C	3.0738	80/20	3.0738
963311	AG1-180	1.4976	80/20	1.4976
964241	AG1-285 C O1	4.2330	80/20	4.2330
964491	AG1-312 C O1	42.7392	80/20	42.7392
964501	AG1-313 C O1	6.1567	80/20	6.1567
964801	AG1-343 C	4.7135	80/20	4.7135
965291	AG1-394 C	1.4894	80/20	1.4894
965451	AG1-413 C O1	3.4453	80/20	3.4453
965591	AG1-427 C	3.9944	80/20	3.9944
965601	AG1-428 C O1	2.5661	80/20	2.5661
965631	AG1-431	94.5063	80/20	94.5063
965691	AG1-437 C O1	22.1316	80/20	22.1316
965701	AG1-438 C O1	22.1316	80/20	22.1316
965711	AG1-439 C O1	30.8475	80/20	30.8475
965721	AG1-440 C	4.2890	80/20	4.2890
965731	AG1-441 C	4.2890	80/20	4.2890
965741	AG1-442 O1	12.9101	80/20	12.9101
965751	AG1-443 O1	12.9101	80/20	12.9101
965761	AG1-444 O1	16.4520	80/20	16.4520
965771	AG1-445	2.4781	80/20	2.4781
965781	AG1-446	2.4781	80/20	2.4781
966621	AG1-532 C	0.8928	80/20	0.8928
966751	AG1-546 C	11.9536	80/20	11.9536
966801	AG1-551 C	3.8374	80/20	3.8374
966811	AG1-552 C	2.0442	80/20	2.0442
966931	AG1-431A	71.0040	80/20	71.0040
WEC	WEC	0.3330	Confirmed LTF	0.3330
LGEE	LGEE	0.6786	Confirmed LTF	0.6786
CPL	CPL	3.7381	Confirmed LTF	3.7381
CBM-W2	CBM-W2	14.1299	Confirmed LTF	14.1299
NY	NY	0.3019	Confirmed LTF	0.3019
TVA	TVA	2.6320	Confirmed LTF	2.6320
SIGE	SIGE	0.1896	Confirmed LTF	0.1896
CBM-S2	CBM-S2	40.4863	Confirmed LTF	40.4863
CBM-S1	CBM-S1	0.6593	Confirmed LTF	0.6593
MEC	MEC	1.9656	Confirmed LTF	1.9656
LAGN	LAGN	3.2847	Confirmed LTF	3.2847
AA2-074	AA2-074	2.4687	LTF	2.4687
CBM-W1	CBM-W1	14.0621	Confirmed LTF	14.0621

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
169038805	314573	3EVERETS	DVP	314574	6EVERETS	DVP	2	DVP_P1-2: LN 2034-A	single	241.39	114.99	117.39	DC	5.81

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315292	1DOMTR78	1.8204	80/20	1.8204
315293	1DOMTR9	9.4154	80/20	9.4154
315294	1DOMTR10	11.5385	80/20	11.5385
315605	6W1-029WIND	0.3180	80/20	0.3180
315611	6Z1-036WIND	0.5044	80/20	0.5044
315614	AA2-178 C	1.1910	80/20	1.1910
925121	AB2-169 C	1.8853	80/20	1.8853
933991	AD1-023 C	12.9060	80/20	12.9060
934521	AD1-076 C	53.2715	80/20	53.2715
940491	AE2-034 C	5.6616	80/20	5.6616
941501	AE2-147 C	4.6512	80/20	4.6512
944871	AF1-152 C	1.5504	80/20	1.5504
945711	AF1-236 C O1	61.9810	80/20	61.9810
957531	AF2-047 C	13.4530	80/20	13.4530
959511	AF2-242 C	16.0650	80/20	16.0650
964491	AG1-312 C O1	18.6032	80/20	18.6032
965631	AG1-431	35.8838	80/20	35.8838
965691	AG1-437 C O1	9.9660	80/20	9.9660
965701	AG1-438 C O1	9.9660	80/20	9.9660
965741	AG1-442 O1	5.8135	80/20	5.8135
965751	AG1-443 O1	5.8135	80/20	5.8135
966801	AG1-551 C	5.6297	80/20	5.6297
966931	AG1-431A	26.9600	80/20	26.9600
G-007A	G-007A	0.1966	Confirmed LTF	0.1966
VFT	VFT	0.5289	Confirmed LTF	0.5289
CALDERWOOD	CALDERWOOD	0.2097	Confirmed LTF	0.2097
PRAIRIE	PRAIRIE	0.7181	Confirmed LTF	0.7181
CHEOAH	CHEOAH	0.2152	Confirmed LTF	0.2152
CBM-N	CBM-N	0.0960	Confirmed LTF	0.0960
COTTONWOOD	COTTONWOOD	0.7812	Confirmed LTF	0.7812
HAMLET	HAMLET	0.4712	Confirmed LTF	0.4712
GIBSON	GIBSON	0.1250	Confirmed LTF	0.1250
BLUEG	BLUEG	0.3854	Confirmed LTF	0.3854
TRIMBLE	TRIMBLE	0.1224	Confirmed LTF	0.1224
CATAWBA	CATAWBA	0.2254	Confirmed LTF	0.2254

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
163841849	314574	6EVERETS	DVP	304451	6GREENVILLE	CPL	1	DVP_P7-1: LN 2058-2181	tower	478.0	227.34	228.62	DC	6.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.9855	Adder	3.51
314539	3UNCAMP	2.4187	Adder	2.85
314541	3WATKINS	0.2950	Adder	0.35
314572	3EMPORIA	0.1716	Adder	0.2
314582	3KELFORD	0.2963	50/50	0.2963
314589	3MURPHYS	0.0602	50/50	0.0602
314594	6PLYMOTH	0.0896	50/50	0.0896
314632	6AYDLETOLD	0.6586	Adder	0.77
315131	1EDGE CMA (Deactivation : 22/04/2019)	9.5990	50/50	9.5990
315132	1EDGE CMB (Deactivation : 22/04/2019)	9.5990	50/50	9.5990
315136	1ROSEMG1	1.5370	50/50	1.5370
315137	1ROSEMS1	0.9531	50/50	0.9531
315138	1ROSEMG2	0.7203	50/50	0.7203
315139	1GASTONA	2.1216	50/50	2.1216
315141	1GASTONB	2.1216	50/50	2.1216
315292	1DOMTR78	1.6763	50/50	1.6763
315293	1DOMTR9	8.6700	50/50	8.6700
315294	1DOMTR10	10.6250	50/50	10.6250
315601	1CONETOE2SOL	2.1704	50/50	2.1704
315602	1HOLLOMAN SOL	1.5332	50/50	1.5332
315606	3AA2-053SOLA	0.9398	50/50	0.9398
315611	6Z1-036WIND	0.6573	50/50	0.6573
315614	AA2-178 C	1.2997	50/50	1.2997
316088	AB2-174 E	2.7352	Adder	3.22
316097	AB2-100 E1	1.2133	Adder	1.43
316099	AB2-100 E2	1.2133	Adder	1.43
316103	AB2-015 C	3.5908	Adder	4.22
316104	AB2-015 E	2.9445	Adder	3.46
316140	AB2-099 C (Suspended)	0.5180	50/50	0.5180
316141	AB2-099 E (Suspended)	0.2220	50/50	0.2220
900672	V4-068 E	0.2092	50/50	0.2092
901082	W1-029 E	18.7397	Adder	22.05
913392	Y1-086 E	0.7676	Adder	0.9
916042	Z1-036 E (Suspended)	27.9147	50/50	27.9147
917122	Z2-027 E	0.3981	Adder	0.47
917332	Z2-043 E	0.8838	50/50	0.8838
917342	Z2-044 E	0.2085	Adder	0.25
917512	Z2-088 E OP1	12.8742	50/50	12.8742
918492	AA1-063AE OP	2.0182	Adder	2.37

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
169038693	314575	6NUCO TP	DVP	957820	AF2-076 TAP	DVP	1	DVP_P1-2: LN 2092	single	571.52	227.54	229.8	DC	12.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	5.3764	80/20	5.3764
313527	AB2-043 C	0.1797	80/20	0.1797

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	1.2166	80/20	1.2166
314572	3EMPORIA	0.2919	80/20	0.2919
314582	3KELFORD	0.6058	80/20	0.6058
314589	3MURPHYS	0.0945	80/20	0.0945
314623	3WITAKRS	0.2162	80/20	0.2162
314704	3LAWRENC	0.1658	80/20	0.1658
315115	1S HAMPT1	0.4948	80/20	0.4948
315126	1ROARAP2	1.2875	80/20	1.2875
315128	1ROARAP4	1.2286	80/20	1.2286
315131	1EDGECSMA (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315132	1EDGECSMB (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315136	1ROSEMG1	2.1445	80/20	2.1445
315137	1ROSEMS1	1.3298	80/20	1.3298
315138	1ROSEMG2	1.0051	80/20	1.0051
315139	1GASTONA	3.1370	80/20	3.1370
315141	1GASTONB	3.1370	80/20	3.1370
315158	1KERR 1	0.1949	80/20	0.1949
315159	1KERR 2	0.5458	80/20	0.5458
315160	1KERR 3	0.5458	80/20	0.5458
315161	1KERR 4	0.5458	80/20	0.5458
315162	1KERR 5	0.5458	80/20	0.5458
315163	1KERR 6	0.5458	80/20	0.5458
315164	1KERR 7	0.5458	80/20	0.5458
315292	1DOMTR78	2.6258	80/20	2.6258
315293	1DOMTR9	13.5807	80/20	13.5807
315294	1DOMTR10	16.6430	80/20	16.6430
315601	1CONETOE2SOL	1.7196	80/20	1.7196
315602	1HOLLOMAN SOL	3.2518	80/20	3.2518
315606	3AA2-053SOLA	1.6490	80/20	1.6490
315607	3AA1-063SOLA	1.1822	80/20	1.1822
315608	3AA2-088SOLA	0.6872	80/20	0.6872
315611	6Z1-036WIND	2.1843	80/20	2.1843
315614	AA2-178 C	3.1366	80/20	3.1366
316020	AB2-059 C OP	1.5978	80/20	1.5978
316087	AB2-174 C	0.8423	80/20	0.8423
316096	AB2-100 C1	0.5758	80/20	0.5758
316098	AB2-100 C2	0.5758	80/20	0.5758
316129	AC1-054 C	5.2403	80/20	5.2403
316131	AB2-060 C	0.5087	80/20	0.5087
316140	AB2-099 C (Suspended)	1.0074	80/20	1.0074
920591	AA2-165 C	0.1633	80/20	0.1633
922922	AB1-081 C OP	1.3557	80/20	1.3557
923991	AB2-040 C O1	5.8555	80/20	5.8555
924301	AB2-077 C O1 (Suspended)	0.7260	80/20	0.7260
924311	AB2-078 C O1 (Suspended)	0.7260	80/20	0.7260
924321	AB2-079 C O1 (Suspended)	0.7260	80/20	0.7260
925121	AB2-169 C	1.8885	80/20	1.8885
925591	AC1-034 C	6.5600	80/20	6.5600

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926070	AC1-086 C	22.3600	80/20	22.3600
926201	AC1-098 C	8.0404	80/20	8.0404
926211	AC1-099 C	2.6944	80/20	2.6944
927024	AC1-189 C	11.8698	80/20	11.8698
927145	AC1-208 C	10.1498	80/20	10.1498
932631	AC2-084 C	11.4618	80/20	11.4618
933991	AD1-023 C	28.1849	80/20	28.1849
934331	AD1-057 C O1	10.1494	80/20	10.1494
934521	AD1-076 C	113.8581	80/20	113.8581
936361	AD2-046 C O1	4.3133	80/20	4.3133
936401	AD2-051 C O1	19.8559	80/20	19.8559
936485	AD2-063 C	4.9392	80/20	4.9392
938221	AE1-035 C	0.8131	80/20	0.8131
939181	AE1-148 C	4.2104	80/20	4.2104
940481	AE2-033 C	4.4571	80/20	4.4571
940491	AE2-034 C	14.9108	80/20	14.9108
940571	AE2-044 C	4.2966	80/20	4.2966
940661	AE2-053 O1	1.5594	80/20	1.5594
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.3297	80/20	0.3297
942131	AE2-225 C	-1.0743	Adder	-1.26
942171	AE2-229 C	-0.8057	Adder	-0.95
942451	AE2-258	0.8499	80/20	0.8499
942471	AE2-260 C O1	8.2667	80/20	8.2667
943171	AE2-346 C	2.4178	80/20	2.4178
943611	AF1-032 C	-0.8773	Adder	-1.03
943911	AF1-059	8.1959	80/20	8.1959
944141	AF1-082	2.7621	80/20	2.7621
945711	AF1-236 C O1	163.2382	80/20	163.2382
946281	AF1-292 C	0.9810	80/20	0.9810
957491	AF2-043 C	-1.0743	Adder	-1.26
957521	AF2-046 C	20.4271	80/20	20.4271
957531	AF2-047 C	35.4310	80/20	35.4310
957861	AF2-080 C	10.7806	80/20	10.7806
959511	AF2-242 C	13.0307	80/20	13.0307
960081	AF2-299 C	1.6533	80/20	1.6533
961671	AG1-007 C	1.4833	80/20	1.4833
961681	AG1-008 C	20.4680	80/20	20.4680
961931	AG1-036 C	2.0158	80/20	2.0158
961941	AG1-037 C	0.8635	80/20	0.8635
962331	AG1-082 C	3.4540	80/20	3.4540
962341	AG1-083 C	3.4540	80/20	3.4540
962351	AG1-084 C	3.3758	80/20	3.3758
962361	AG1-085 C	3.3758	80/20	3.3758
962571	AG1-106 C	6.2181	80/20	6.2181
963301	AG1-179 C	3.0738	80/20	3.0738
963311	AG1-180	1.4976	80/20	1.4976
964241	AG1-285 C O1	4.2330	80/20	4.2330
964491	AG1-312 C O1	42.7392	80/20	42.7392
964501	AG1-313 C O1	6.1567	80/20	6.1567
964801	AG1-343 C	4.7135	80/20	4.7135
965291	AG1-394 C	1.4894	80/20	1.4894

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965451	AG1-413 C O1	3.4453	80/20	3.4453
965591	AG1-427 C	3.9944	80/20	3.9944
965601	AG1-428 C O1	2.5661	80/20	2.5661
965631	AG1-431	94.5063	80/20	94.5063
965691	AG1-437 C O1	22.1316	80/20	22.1316
965701	AG1-438 C O1	22.1316	80/20	22.1316
965711	AG1-439 C O1	30.8475	80/20	30.8475
965721	AG1-440 C	4.2890	80/20	4.2890
965731	AG1-441 C	4.2890	80/20	4.2890
965741	AG1-442 O1	12.9101	80/20	12.9101
965751	AG1-443 O1	12.9101	80/20	12.9101
965761	AG1-444 O1	16.4520	80/20	16.4520
965771	AG1-445	2.4781	80/20	2.4781
965781	AG1-446	2.4781	80/20	2.4781
966621	AG1-532 C	0.8928	80/20	0.8928
966751	AG1-546 C	11.9536	80/20	11.9536
966801	AG1-551 C	3.8374	80/20	3.8374
966811	AG1-552 C	2.0442	80/20	2.0442
966931	AG1-431A	71.0040	80/20	71.0040
WEC	WEC	0.3330	Confirmed LTF	0.3330
LGEE	LGEE	0.6786	Confirmed LTF	0.6786
CPL	CPL	3.7381	Confirmed LTF	3.7381
CBM-W2	CBM-W2	14.1299	Confirmed LTF	14.1299
NY	NY	0.3019	Confirmed LTF	0.3019
TVA	TVA	2.6320	Confirmed LTF	2.6320
SIGE	SIGE	0.1896	Confirmed LTF	0.1896
CBM-S2	CBM-S2	40.4863	Confirmed LTF	40.4863
CBM-S1	CBM-S1	0.6593	Confirmed LTF	0.6593
MEC	MEC	1.9656	Confirmed LTF	1.9656
LAGN	LAGN	3.2847	Confirmed LTF	3.2847
AA2-074	AA2-074	2.4687	LTF	2.4687
CBM-W1	CBM-W1	14.0621	Confirmed LTF	14.0621

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168527002	314583	6LAKEVEW	DVP	313725	6DRY BREAD	DVP	1	DVP_P1-2: LN 2056-A	single	375.06	161.53	162.69	DC	4.34

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.7150	80/20	0.7150
314582	3KELFORD	0.3029	80/20	0.3029
314589	3MURPHYS	0.0674	80/20	0.0674
314623	3WITAKRS	0.1143	80/20	0.1143
315115	1S HAMPT1	0.7738	80/20	0.7738
315126	1ROARAP2	1.4586	80/20	1.4586

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315128	1ROARAP4	1.3919	80/20	1.3919
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.6407	80/20	3.6407
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.6407	80/20	3.6407
315136	1ROSEMG1	5.2091	80/20	5.2091
315137	1ROSEMS1	3.2302	80/20	3.2302
315138	1ROSEMG2	2.4413	80/20	2.4413
315139	1GASTONA	7.4804	80/20	7.4804
315141	1GASTONB	7.4804	80/20	7.4804
315158	1KERR 1	0.1353	80/20	0.1353
315159	1KERR 2	0.3790	80/20	0.3790
315160	1KERR 3	0.3790	80/20	0.3790
315161	1KERR 4	0.3790	80/20	0.3790
315162	1KERR 5	0.3790	80/20	0.3790
315163	1KERR 6	0.3790	80/20	0.3790
315164	1KERR 7	0.3790	80/20	0.3790
315292	1DOMTR78	0.7883	80/20	0.7883
315293	1DOMTR9	4.0771	80/20	4.0771
315294	1DOMTR10	4.9965	80/20	4.9965
315601	1CONETOESOL	0.6653	80/20	0.6653
315602	1HOLLOMANSOL	1.2698	80/20	1.2698
315606	3AA2-053SOLA	1.5347	80/20	1.5347
315607	3AA1-063SOLA	1.2898	80/20	1.2898
315608	3AA2-088SOLA	0.7208	80/20	0.7208
315611	6Z1-036WIND	0.3321	80/20	0.3321
315614	AA2-178 C	0.7373	80/20	0.7373
316020	AB2-059 C OP	0.7180	80/20	0.7180
316103	AB2-015 C	4.2245	80/20	4.2245
316129	AC1-054 C	5.0414	80/20	5.0414
316140	AB2-099 C (Suspended)	0.5061	80/20	0.5061
920591	AA2-165 C	0.0960	80/20	0.0960
922922	AB1-081 C OP	0.6092	80/20	0.6092
925121	AB2-169 C	0.6079	80/20	0.6079
925591	AC1-034 C	2.9476	80/20	2.9476
926070	AC1-086 C	53.3184	80/20	53.3184
926201	AC1-098 C	4.8181	80/20	4.8181
926211	AC1-099 C	1.6146	80/20	1.6146
927024	AC1-189 C	4.5443	80/20	4.5443
927145	AC1-208 C	7.1743	80/20	7.1743
932631	AC2-084 C	6.8683	80/20	6.8683
933991	AD1-023 C	8.8407	80/20	8.8407
934331	AD1-057 C O1	26.4228	80/20	26.4228
934521	AD1-076 C	32.3618	80/20	32.3618
936401	AD2-051 C O1	8.2561	80/20	8.2561
938221	AE1-035 C	0.3175	80/20	0.3175
938771	AE1-103 C	1.4104	80/20	1.4104
940491	AE2-034 C	3.5049	80/20	3.5049
940571	AE2-044 C	1.9306	80/20	1.9306
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1524	80/20	0.1524
943171	AE2-346 C	1.2146	80/20	1.2146
944141	AF1-082	1.2411	80/20	1.2411

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945711	AF1-236 C O1	38.3703	80/20	38.3703
957521	AF2-046 C	13.4371	80/20	13.4371
957531	AF2-047 C	8.3283	80/20	8.3283
957861	AF2-080 C	4.1274	80/20	4.1274
959511	AF2-242 C	4.4114	80/20	4.4114
961091	AF2-400 C	0.2281	80/20	0.2281
961671	AG1-007 C	0.5792	80/20	0.5792
961681	AG1-008 C	13.4640	80/20	13.4640
961931	AG1-036 C	1.1334	80/20	1.1334
961941	AG1-037 C	0.4338	80/20	0.4338
962331	AG1-082 C	1.7351	80/20	1.7351
962341	AG1-083 C	1.7351	80/20	1.7351
962351	AG1-084 C	1.5605	80/20	1.5605
962361	AG1-085 C	1.5605	80/20	1.5605
962571	AG1-106 C	14.8274	80/20	14.8274
964491	AG1-312 C O1	16.2680	80/20	16.2680
964501	AG1-313 C O1	4.7019	80/20	4.7019
964801	AG1-343 C	4.4191	80/20	4.4191
965291	AG1-394 C	1.4999	80/20	1.4999
965631	AG1-431	22.2144	80/20	22.2144
965691	AG1-437 C O1	7.4400	80/20	7.4400
965701	AG1-438 C O1	7.4400	80/20	7.4400
965711	AG1-439 C O1	11.9340	80/20	11.9340
965721	AG1-440 C	3.4965	80/20	3.4965
965731	AG1-441 C	3.4965	80/20	3.4965
965741	AG1-442 O1	4.3400	80/20	4.3400
965751	AG1-443 O1	4.3400	80/20	4.3400
965761	AG1-444 O1	6.3648	80/20	6.3648
965771	AG1-445	2.0202	80/20	2.0202
965781	AG1-446	2.0202	80/20	2.0202
966751	AG1-546 C	11.7847	80/20	11.7847
966801	AG1-551 C	1.3629	80/20	1.3629
966811	AG1-552 C	2.3159	80/20	2.3159
966931	AG1-431A	16.6900	80/20	16.6900
WEC	WEC	0.1024	Confirmed LTF	0.1024
LGEE	LGEE	0.2099	Confirmed LTF	0.2099
CPL	CPL	1.4510	Confirmed LTF	1.4510
CBM-W2	CBM-W2	4.8026	Confirmed LTF	4.8026
NY	NY	0.1830	Confirmed LTF	0.1830
TVA	TVA	0.9240	Confirmed LTF	0.9240
SIGE	SIGE	0.0776	Confirmed LTF	0.0776
CBM-S2	CBM-S2	15.3990	Confirmed LTF	15.3990
CBM-S1	CBM-S1	0.2284	Confirmed LTF	0.2284
MEC	MEC	0.6324	Confirmed LTF	0.6324
LAGN	LAGN	1.1515	Confirmed LTF	1.1515
CBM-W1	CBM-W1	4.2340	Confirmed LTF	4.2340

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
169038728	314596	3POPLR C	DVP	314573	3EVERETS	DVP	1	DVP_P1-2: LN 2034-A	single	269.78	158.81	162.3	DC	9.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1359	80/20	0.1359
314638	6ELIZ CT	0.0795	80/20	0.0795
314639	6TANGLEW	0.1666	80/20	0.1666
315292	1DOMTR78	2.9489	80/20	2.9489
315293	1DOMTR9	15.2523	80/20	15.2523
315294	1DOMTR10	18.6915	80/20	18.6915
315605	6W1-029WIND	0.5154	80/20	0.5154
315611	6Z1-036WIND	0.8173	80/20	0.8173
315614	AA2-178 C	1.9294	80/20	1.9294
925121	AB2-169 C	0.7408	80/20	0.7408
933991	AD1-023 C	20.9075	80/20	20.9075
934521	AD1-076 C	86.2940	80/20	86.2940
940491	AE2-034 C	9.1720	80/20	9.1720
941501	AE2-147 C	7.5384	80/20	7.5384
944871	AF1-152 C	2.5128	80/20	2.5128
945711	AF1-236 C O1	100.4111	80/20	100.4111
957531	AF2-047 C	21.7943	80/20	21.7943
964491	AG1-312 C O1	30.1370	80/20	30.1370
965631	AG1-431	58.1328	80/20	58.1328
965691	AG1-437 C O1	16.1448	80/20	16.1448
965701	AG1-438 C O1	16.1448	80/20	16.1448
965741	AG1-442 O1	9.4178	80/20	9.4178
965751	AG1-443 O1	9.4178	80/20	9.4178
966931	AG1-431A	43.6760	80/20	43.6760
G-007A	G-007A	0.3356	Confirmed LTF	0.3356
VFT	VFT	0.8965	Confirmed LTF	0.8965
CALDERWOOD	CALDERWOOD	0.3365	Confirmed LTF	0.3365
PRAIRIE	PRAIRIE	1.1443	Confirmed LTF	1.1443
CHEOAH	CHEOAH	0.3453	Confirmed LTF	0.3453
CBM-N	CBM-N	0.1632	Confirmed LTF	0.1632
COTTONWOOD	COTTONWOOD	1.2495	Confirmed LTF	1.2495
HAMLET	HAMLET	0.7588	Confirmed LTF	0.7588
GIBSON	GIBSON	0.1993	Confirmed LTF	0.1993
BLUEG	BLUEG	0.6128	Confirmed LTF	0.6128
TRIMBLE	TRIMBLE	0.1942	Confirmed LTF	0.1942
CATAWBA	CATAWBA	0.3626	Confirmed LTF	0.3626

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
169038737	314614	3TRWBRDG2	DVP	314596	3POPLR C	DVP	1	DVP_P1-2: LN 2034-A	single	285.76	149.58	152.88	DC	9.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1359	80/20	0.1359
314638	6ELIZ CT	0.0795	80/20	0.0795
314639	6TANGLEW	0.1666	80/20	0.1666
315292	1DOMTR78	2.9489	80/20	2.9489
315293	1DOMTR9	15.2523	80/20	15.2523
315294	1DOMTR10	18.6915	80/20	18.6915
315605	6W1-029WIND	0.5154	80/20	0.5154
315611	6Z1-036WIND	0.8173	80/20	0.8173
315614	AA2-178 C	1.9294	80/20	1.9294
925121	AB2-169 C	0.7408	80/20	0.7408
933991	AD1-023 C	20.9075	80/20	20.9075
934521	AD1-076 C	86.2940	80/20	86.2940
940491	AE2-034 C	9.1720	80/20	9.1720
941501	AE2-147 C	7.5384	80/20	7.5384
944871	AF1-152 C	2.5128	80/20	2.5128
945711	AF1-236 C O1	100.4111	80/20	100.4111
957531	AF2-047 C	21.7943	80/20	21.7943
964491	AG1-312 C O1	30.1370	80/20	30.1370
965631	AG1-431	58.1328	80/20	58.1328
965691	AG1-437 C O1	16.1448	80/20	16.1448
965701	AG1-438 C O1	16.1448	80/20	16.1448
965741	AG1-442 O1	9.4178	80/20	9.4178
965751	AG1-443 O1	9.4178	80/20	9.4178
966931	AG1-431A	43.6760	80/20	43.6760
G-007A	G-007A	0.3356	Confirmed LTF	0.3356
VFT	VFT	0.8965	Confirmed LTF	0.8965
CALDERWOOD	CALDERWOOD	0.3365	Confirmed LTF	0.3365
PRAIRIE	PRAIRIE	1.1443	Confirmed LTF	1.1443
CHEOAH	CHEOAH	0.3453	Confirmed LTF	0.3453
CBM-N	CBM-N	0.1632	Confirmed LTF	0.1632
COTTONWOOD	COTTONWOOD	1.2495	Confirmed LTF	1.2495
HAMLET	HAMLET	0.7588	Confirmed LTF	0.7588
GIBSON	GIBSON	0.1993	Confirmed LTF	0.1993
BLUEG	BLUEG	0.6128	Confirmed LTF	0.6128
TRIMBLE	TRIMBLE	0.1942	Confirmed LTF	0.1942
CATAWBA	CATAWBA	0.3626	Confirmed LTF	0.3626

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
169038792	314616	6TRWBRDG	DVP	314614	3TRWBRDG2	DVP	1	DVP_P1-2: LN 2034-A	single	182.36	114.29	117.49	DC	5.84

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315293	1DOMTR9	-9.0955	Adder	-10.7
315294	1DOMTR10	-11.1465	Adder	-13.11
315605	6W1-029WIND	0.3202	80/20	0.3202
315611	6Z1-036WIND	0.5071	80/20	0.5071
315614	AA2-178 C	1.1961	80/20	1.1961
933991	AD1-023 C	12.9573	80/20	12.9573
934521	AD1-076 C	53.4799	80/20	53.4799
940491	AE2-034 C	5.6860	80/20	5.6860
941501	AE2-147 C	4.6836	80/20	4.6836
944871	AF1-152 C	1.5612	80/20	1.5612
945711	AF1-236 C O1	62.2477	80/20	62.2477
957531	AF2-047 C	13.5109	80/20	13.5109
964491	AG1-312 C O1	18.6771	80/20	18.6771
965631	AG1-431	36.0382	80/20	36.0382
965691	AG1-437 C O1	10.0056	80/20	10.0056
965701	AG1-438 C O1	10.0056	80/20	10.0056
965741	AG1-442 O1	5.8366	80/20	5.8366
965751	AG1-443 O1	5.8366	80/20	5.8366
966931	AG1-431A	27.0760	80/20	27.0760
G-007A	G-007A	0.2541	Confirmed LTF	0.2541
VFT	VFT	0.6772	Confirmed LTF	0.6772
CALDERWOOD	CALDERWOOD	0.1988	Confirmed LTF	0.1988
PRAIRIE	PRAIRIE	0.6612	Confirmed LTF	0.6612
CHEOAH	CHEOAH	0.2042	Confirmed LTF	0.2042
CBM-N	CBM-N	0.1236	Confirmed LTF	0.1236
COTTONWOOD	COTTONWOOD	0.7350	Confirmed LTF	0.7350
HAMLET	HAMLET	0.4591	Confirmed LTF	0.4591
GIBSON	GIBSON	0.1130	Confirmed LTF	0.1130
BLUEG	BLUEG	0.3472	Confirmed LTF	0.3472
TRIMBLE	TRIMBLE	0.1096	Confirmed LTF	0.1096
CATAWBA	CATAWBA	0.2177	Confirmed LTF	0.2177

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
168526993	314637	6EDENTON	DVP	313885	6WALBMRL	DVP	1	Base Case	single	733.2	146.32	147.63	DC	9.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1331	80/20	2.1331
313719	3CHESTNUT	0.5165	80/20	0.5165
314582	3KELFORD	0.2333	80/20	0.2333
314589	3MURPHYS	0.0370	80/20	0.0370
314623	3WITAKRS	0.0940	80/20	0.0940
315126	1ROARAP2	0.5120	80/20	0.5120
315128	1ROARAP4	0.4886	80/20	0.4886
315131	1EDGE CMA (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315132	1EDGE CMB (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315136	1ROSEMG1	0.8655	80/20	0.8655
315137	1ROSEMS1	0.5367	80/20	0.5367
315138	1ROSEMG2	0.4057	80/20	0.4057
315139	1GASTONA	1.2468	80/20	1.2468
315141	1GASTONB	1.2468	80/20	1.2468
315292	1DOMTR78	2.6052	80/20	2.6052
315293	1DOMTR9	13.4746	80/20	13.4746
315294	1DOMTR10	16.5130	80/20	16.5130
315601	1CONETOE2SOL	0.8402	80/20	0.8402
315602	1HOLLOMANSOL	1.2190	80/20	1.2190
315606	3AA2-053SOLA	0.6464	80/20	0.6464
315607	3AA1-063SOLA	0.4733	80/20	0.4733
315614	AA2-178 C	4.4673	80/20	4.4673
316020	AB2-059 C OP	0.7167	80/20	0.7167
316087	AB2-174 C	0.3340	80/20	0.3340
316140	AB2-099 C (Suspended)	0.3837	80/20	0.3837
920591	AA2-165 C	0.0693	80/20	0.0693
922922	AB1-081 C OP	0.6081	80/20	0.6081
923991	AB2-040 C O1	2.3232	80/20	2.3232
925121	AB2-169 C	1.6131	80/20	1.6131
925591	AC1-034 C	2.9425	80/20	2.9425
926070	AC1-086 C	8.8866	80/20	8.8866
926201	AC1-098 C	3.2283	80/20	3.2283
926211	AC1-099 C	1.0818	80/20	1.0818
927024	AC1-189 C	5.8874	80/20	5.8874
927145	AC1-208 C	4.1650	80/20	4.1650
932631	AC2-084 C	4.6021	80/20	4.6021
933991	AD1-023 C	25.2222	80/20	25.2222
934331	AD1-057 C O1	4.3394	80/20	4.3394
934521	AD1-076 C	124.5855	80/20	124.5855
936401	AD2-051 C O1	7.4492	80/20	7.4492

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938221	AE1-035 C	0.3048	80/20	0.3048
940491	AE2-034 C	21.2365	80/20	21.2365
940571	AE2-044 C	1.9272	80/20	1.9272
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1250	80/20	0.1250
943171	AE2-346 C	0.9210	80/20	0.9210
944141	AF1-082	1.2389	80/20	1.2389
945711	AF1-236 C O1	232.4887	80/20	232.4887
957521	AF2-046 C	7.9381	80/20	7.9381
957531	AF2-047 C	50.4619	80/20	50.4619
957861	AF2-080 C	5.3471	80/20	5.3471
959511	AF2-242 C	9.7474	80/20	9.7474
961671	AG1-007 C	0.7149	80/20	0.7149
961681	AG1-008 C	7.9540	80/20	7.9540
961931	AG1-036 C	0.7739	80/20	0.7739
961941	AG1-037 C	0.3289	80/20	0.3289
962331	AG1-082 C	1.3157	80/20	1.3157
962341	AG1-083 C	1.3157	80/20	1.3157
962351	AG1-084 C	1.2792	80/20	1.2792
962361	AG1-085 C	1.2792	80/20	1.2792
962571	AG1-106 C	2.4713	80/20	2.4713
964491	AG1-312 C O1	18.8709	80/20	18.8709
964501	AG1-313 C O1	2.3849	80/20	2.3849
964801	AG1-343 C	1.8970	80/20	1.8970
965291	AG1-394 C	0.6046	80/20	0.6046
965631	AG1-431	134.5987	80/20	134.5987
965691	AG1-437 C O1	16.4358	80/20	16.4358
965701	AG1-438 C O1	16.4358	80/20	16.4358
965711	AG1-439 C O1	15.0720	80/20	15.0720
965741	AG1-442 O1	9.5876	80/20	9.5876
965751	AG1-443 O1	9.5876	80/20	9.5876
965761	AG1-444 O1	8.0384	80/20	8.0384
966801	AG1-551 C	2.4639	80/20	2.4639
966811	AG1-552 C	0.8130	80/20	0.8130
966931	AG1-431A	101.1260	80/20	101.1260
WEC	WEC	0.1581	Confirmed LTF	0.1581
LGEE	LGEE	0.3223	Confirmed LTF	0.3223
CPL	CPL	1.7718	Confirmed LTF	1.7718
CBM-W2	CBM-W2	6.6931	Confirmed LTF	6.6931
NY	NY	0.1366	Confirmed LTF	0.1366
TVA	TVA	1.2446	Confirmed LTF	1.2446
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	19.1365	Confirmed LTF	19.1365
CBM-S1	CBM-S1	0.3120	Confirmed LTF	0.3120
MEC	MEC	0.9327	Confirmed LTF	0.9327
LAGN	LAGN	1.5540	Confirmed LTF	1.5540
CBM-W1	CBM-W1	6.6875	Confirmed LTF	6.6875

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
169249896	314638	6ELIZ CT	DVP	314647	6SHAWBRO	DVP	1	DVP_P1-2: LN 247	single	571.52	177.82	179.23	DC	8.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	1.5724	80/20	1.5724
313719	3CHESTNUT	0.4435	80/20	0.4435
314582	3KELFORD	0.2015	80/20	0.2015
314589	3MURPHYS	0.0334	80/20	0.0334
314623	3WITAKRS	0.0805	80/20	0.0805
314638	6ELIZ CT	0.9192	80/20	0.9192
314639	6TANGLEW	1.6091	80/20	1.6091
315126	1ROARAP2	0.4462	80/20	0.4462
315128	1ROARAP4	0.4258	80/20	0.4258
315131	1EDGE CMA (Deactivation : 22/04/2019)	3.5026	80/20	3.5026
315132	1EDGE CMB (Deactivation : 22/04/2019)	3.5026	80/20	3.5026
315136	1ROSEMG1	0.7443	80/20	0.7443
315137	1ROSEMS1	0.4616	80/20	0.4616
315138	1ROSEMG2	0.3488	80/20	0.3488
315139	1GASTONA	1.0736	80/20	1.0736
315141	1GASTONB	1.0736	80/20	1.0736
315292	1DOMTR78	2.1719	80/20	2.1719
315293	1DOMTR9	11.2331	80/20	11.2331
315294	1DOMTR10	13.7660	80/20	13.7660
315601	1CONETOE2SOL	0.7139	80/20	0.7139
315602	1HOLLOMANSOL	1.0486	80/20	1.0486
315605	6W1-029WIND	4.0401	80/20	4.0401
315606	3AA2-053SOLA	0.5620	80/20	0.5620
315607	3AA1-063SOLA	0.4246	80/20	0.4246
315611	6Z1-036WIND	3.5731	80/20	3.5731
315614	AA2-178 C	3.7025	80/20	3.7025
316020	AB2-059 C OP	0.6115	80/20	0.6115
316140	AB2-099 C (Suspended)	0.3341	80/20	0.3341
920591	AA2-165 C	0.0595	80/20	0.0595
922922	AB1-081 C OP	0.5189	80/20	0.5189
925121	AB2-169 C	1.3487	80/20	1.3487
925591	AC1-034 C	2.5107	80/20	2.5107
926070	AC1-086 C	7.6521	80/20	7.6521
926201	AC1-098 C	2.7843	80/20	2.7843
926211	AC1-099 C	0.9330	80/20	0.9330
927024	AC1-189 C	4.9993	80/20	4.9993
927145	AC1-208 C	3.5927	80/20	3.5927
932631	AC2-084 C	3.9691	80/20	3.9691
933991	AD1-023 C	21.0715	80/20	21.0715
934331	AD1-057 C O1	3.7148	80/20	3.7148

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934521	AD1-076 C	103.6759	80/20	103.6759
936401	AD2-051 C O1	6.4080	80/20	6.4080
938221	AE1-035 C	0.2622	80/20	0.2622
940491	AE2-034 C	17.6009	80/20	17.6009
940571	AE2-044 C	1.6444	80/20	1.6444
941501	AE2-147 C	59.0949	80/20	59.0949
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1080	80/20	0.1080
943171	AE2-346 C	0.8019	80/20	0.8019
944141	AF1-082	1.0571	80/20	1.0571
944871	AF1-152 C	19.6983	80/20	19.6983
945711	AF1-236 C O1	192.6884	80/20	192.6884
957521	AF2-046 C	7.1068	80/20	7.1068
957531	AF2-047 C	41.8232	80/20	41.8232
957861	AF2-080 C	4.5406	80/20	4.5406
959511	AF2-242 C	8.1751	80/20	8.1751
961671	AG1-007 C	0.6078	80/20	0.6078
961681	AG1-008 C	7.1210	80/20	7.1210
961931	AG1-036 C	0.6812	80/20	0.6812
961941	AG1-037 C	0.2864	80/20	0.2864
962331	AG1-082 C	1.1456	80/20	1.1456
962341	AG1-083 C	1.1456	80/20	1.1456
962351	AG1-084 C	1.1055	80/20	1.1055
962361	AG1-085 C	1.1055	80/20	1.1055
962571	AG1-106 C	2.1280	80/20	2.1280
964491	AG1-312 C O1	16.1123	80/20	16.1123
964501	AG1-313 C O1	2.0692	80/20	2.0692
964801	AG1-343 C	1.7773	80/20	1.7773
965631	AG1-431	111.5564	80/20	111.5564
965691	AG1-437 C O1	13.7910	80/20	13.7910
965701	AG1-438 C O1	13.7910	80/20	13.7910
965711	AG1-439 C O1	12.8070	80/20	12.8070
965741	AG1-442 O1	8.0447	80/20	8.0447
965751	AG1-443 O1	8.0447	80/20	8.0447
965761	AG1-444 O1	6.8304	80/20	6.8304
966801	AG1-551 C	2.0748	80/20	2.0748
966811	AG1-552 C	0.7085	80/20	0.7085
966931	AG1-431A	83.8140	80/20	83.8140
WEC	WEC	0.1210	Confirmed LTF	0.1210
LGEE	LGEE	0.2469	Confirmed LTF	0.2469
CPL	CPL	1.4838	Confirmed LTF	1.4838
CBM-W2	CBM-W2	5.3133	Confirmed LTF	5.3133
NY	NY	0.1416	Confirmed LTF	0.1416
TVA	TVA	1.0010	Confirmed LTF	1.0010
SIGE	SIGE	0.0757	Confirmed LTF	0.0757
CBM-S2	CBM-S2	15.8897	Confirmed LTF	15.8897
CBM-S1	CBM-S1	0.2497	Confirmed LTF	0.2497
MEC	MEC	0.7246	Confirmed LTF	0.7246
LAGN	LAGN	1.2495	Confirmed LTF	1.2495
CBM-W1	CBM-W1	5.0752	Confirmed LTF	5.0752

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
169249909	314662	6S HERTFORD	DVP	314651	6WINFALL	DVP	1	Base Case	single	733.2	152.03	153.34	DC	9.58

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1246	80/20	2.1246
313719	3CHESTNUT	0.5151	80/20	0.5151
314582	3KELFORD	0.2329	80/20	0.2329
314589	3MURPHYS	0.0369	80/20	0.0369
314623	3WITAKRS	0.0937	80/20	0.0937
315126	1ROARAP2	0.5104	80/20	0.5104
315128	1ROARAP4	0.4870	80/20	0.4870
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315136	1ROSEMG1	0.8630	80/20	0.8630
315137	1ROSEMS1	0.5351	80/20	0.5351
315138	1ROSEMG2	0.4045	80/20	0.4045
315139	1GASTONA	1.2433	80/20	1.2433
315141	1GASTONB	1.2433	80/20	1.2433
315292	1DOMTR78	2.6036	80/20	2.6036
315293	1DOMTR9	13.4660	80/20	13.4660
315294	1DOMTR10	16.5025	80/20	16.5025
315601	1CONETOE2SOL	0.8384	80/20	0.8384
315602	1HOLLOMANSOL	1.2173	80/20	1.2173
315606	3AA2-053SOLA	0.6446	80/20	0.6446
315607	3AA1-063SOLA	0.4717	80/20	0.4717
315611	6Z1-036WIND	4.3262	80/20	4.3262
315614	AA2-178 C	4.4654	80/20	4.4654
316020	AB2-059 C OP	0.7145	80/20	0.7145
316087	AB2-174 C	0.3326	80/20	0.3326
316140	AB2-099 C (Suspended)	0.3830	80/20	0.3830
920591	AA2-165 C	0.0691	80/20	0.0691
922922	AB1-081 C OP	0.6063	80/20	0.6063
923991	AB2-040 C O1	2.3140	80/20	2.3140
925121	AB2-169 C	1.6118	80/20	1.6118
925591	AC1-034 C	2.9335	80/20	2.9335
926070	AC1-086 C	8.8619	80/20	8.8619
926201	AC1-098 C	3.2208	80/20	3.2208
926211	AC1-099 C	1.0793	80/20	1.0793
927024	AC1-189 C	5.8761	80/20	5.8761
927145	AC1-208 C	4.1533	80/20	4.1533
932631	AC2-084 C	4.5914	80/20	4.5914
933991	AD1-023 C	25.2059	80/20	25.2059
934331	AD1-057 C O1	4.3272	80/20	4.3272
934521	AD1-076 C	124.5182	80/20	124.5182

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936401	AD2-051 C O1	7.4382	80/20	7.4382
938221	AE1-035 C	0.3044	80/20	0.3044
940491	AE2-034 C	21.2276	80/20	21.2276
940571	AE2-044 C	1.9214	80/20	1.9214
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1247	80/20	0.1247
943171	AE2-346 C	0.9192	80/20	0.9192
944141	AF1-082	1.2352	80/20	1.2352
945711	AF1-236 C O1	232.3921	80/20	232.3921
957521	AF2-046 C	7.9171	80/20	7.9171
957531	AF2-047 C	50.4409	80/20	50.4409
957861	AF2-080 C	5.3369	80/20	5.3369
959511	AF2-242 C	9.7380	80/20	9.7380
961671	AG1-007 C	0.7133	80/20	0.7133
961681	AG1-008 C	7.9330	80/20	7.9330
961931	AG1-036 C	0.7722	80/20	0.7722
961941	AG1-037 C	0.3283	80/20	0.3283
962331	AG1-082 C	1.3132	80/20	1.3132
962341	AG1-083 C	1.3132	80/20	1.3132
962351	AG1-084 C	1.2770	80/20	1.2770
962361	AG1-085 C	1.2770	80/20	1.2770
962571	AG1-106 C	2.4644	80/20	2.4644
964491	AG1-312 C O1	18.8485	80/20	18.8485
964501	AG1-313 C O1	2.3791	80/20	2.3791
964801	AG1-343 C	1.8896	80/20	1.8896
965291	AG1-394 C	0.6020	80/20	0.6020
965631	AG1-431	134.5428	80/20	134.5428
965691	AG1-437 C O1	16.4232	80/20	16.4232
965701	AG1-438 C O1	16.4232	80/20	16.4232
965711	AG1-439 C O1	15.0405	80/20	15.0405
965741	AG1-442 O1	9.5802	80/20	9.5802
965751	AG1-443 O1	9.5802	80/20	9.5802
965761	AG1-444 O1	8.0216	80/20	8.0216
966801	AG1-551 C	2.4609	80/20	2.4609
966811	AG1-552 C	0.8103	80/20	0.8103
966931	AG1-431A	101.0840	80/20	101.0840
WEC	WEC	0.1518	Confirmed LTF	0.1518
LGEE	LGEE	0.3098	Confirmed LTF	0.3098
CPL	CPL	1.7581	Confirmed LTF	1.7581
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.1477	Confirmed LTF	0.1477
TVA	TVA	1.2166	Confirmed LTF	1.2166
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	18.9277	Confirmed LTF	18.9277
CBM-S1	CBM-S1	0.3044	Confirmed LTF	0.3044
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.5190	Confirmed LTF	1.5190
CBM-W1	CBM-W1	6.4071	Confirmed LTF	6.4071

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168832115	957820	AF2-076 TAP	DVP	314537	6SUFFOLK	DVP	1	DVP_P1-2: LN 2092	single	571.52	231.87	234.13	DC	12.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	5.3764	80/20	5.3764
313527	AB2-043 C	0.1797	80/20	0.1797
313719	3CHESTNUT	1.2166	80/20	1.2166
314572	3EMPORIA	0.2919	80/20	0.2919
314582	3KELFORD	0.6058	80/20	0.6058
314589	3MURPHYS	0.0945	80/20	0.0945
314623	3WITAKRS	0.2162	80/20	0.2162
314704	3LAWRENC	0.1658	80/20	0.1658
315115	1S HAMPT1	0.4948	80/20	0.4948
315126	1ROARAP2	1.2875	80/20	1.2875
315128	1ROARAP4	1.2286	80/20	1.2286
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315136	1ROSEMG1	2.1445	80/20	2.1445
315137	1ROSEMS1	1.3298	80/20	1.3298
315138	1ROSEMG2	1.0051	80/20	1.0051
315139	1GASTONA	3.1370	80/20	3.1370
315141	1GASTONB	3.1370	80/20	3.1370
315158	1KERR 1	0.1949	80/20	0.1949
315159	1KERR 2	0.5458	80/20	0.5458
315160	1KERR 3	0.5458	80/20	0.5458
315161	1KERR 4	0.5458	80/20	0.5458
315162	1KERR 5	0.5458	80/20	0.5458
315163	1KERR 6	0.5458	80/20	0.5458
315164	1KERR 7	0.5458	80/20	0.5458
315292	1DOMTR78	2.6258	80/20	2.6258
315293	1DOMTR9	13.5807	80/20	13.5807
315294	1DOMTR10	16.6430	80/20	16.6430
315601	1CONETOE2SOL	1.7196	80/20	1.7196
315602	1HOLLOMAN SOL	3.2518	80/20	3.2518
315606	3AA2-053SOLA	1.6490	80/20	1.6490
315607	3AA1-063SOLA	1.1822	80/20	1.1822
315608	3AA2-088SOLA	0.6872	80/20	0.6872
315611	6Z1-036WIND	2.1843	80/20	2.1843
315614	AA2-178 C	3.1366	80/20	3.1366
316020	AB2-059 C OP	1.5978	80/20	1.5978
316087	AB2-174 C	0.8423	80/20	0.8423
316096	AB2-100 C1	0.5758	80/20	0.5758
316098	AB2-100 C2	0.5758	80/20	0.5758
316129	AC1-054 C	5.2403	80/20	5.2403

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316131	AB2-060 C	0.5087	80/20	0.5087
316140	AB2-099 C (Suspended)	1.0074	80/20	1.0074
920591	AA2-165 C	0.1633	80/20	0.1633
922922	AB1-081 C OP	1.3557	80/20	1.3557
923991	AB2-040 C O1	5.8555	80/20	5.8555
924301	AB2-077 C O1 (Suspended)	0.7260	80/20	0.7260
924311	AB2-078 C O1 (Suspended)	0.7260	80/20	0.7260
924321	AB2-079 C O1 (Suspended)	0.7260	80/20	0.7260
925121	AB2-169 C	1.8885	80/20	1.8885
925591	AC1-034 C	6.5600	80/20	6.5600
926070	AC1-086 C	22.3600	80/20	22.3600
926201	AC1-098 C	8.0404	80/20	8.0404
926211	AC1-099 C	2.6944	80/20	2.6944
927024	AC1-189 C	11.8698	80/20	11.8698
927145	AC1-208 C	10.1498	80/20	10.1498
932631	AC2-084 C	11.4618	80/20	11.4618
933991	AD1-023 C	28.1849	80/20	28.1849
934331	AD1-057 C O1	10.1494	80/20	10.1494
934521	AD1-076 C	113.8581	80/20	113.8581
936361	AD2-046 C O1	4.3133	80/20	4.3133
936401	AD2-051 C O1	19.8559	80/20	19.8559
936485	AD2-063 C	4.9392	80/20	4.9392
938221	AE1-035 C	0.8131	80/20	0.8131
939181	AE1-148 C	4.2104	80/20	4.2104
940481	AE2-033 C	4.4571	80/20	4.4571
940491	AE2-034 C	14.9108	80/20	14.9108
940571	AE2-044 C	4.2966	80/20	4.2966
940661	AE2-053 O1	1.5594	80/20	1.5594
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.3297	80/20	0.3297
942131	AE2-225 C	-1.0743	Adder	-1.26
942171	AE2-229 C	-0.8057	Adder	-0.95
942451	AE2-258	0.8499	80/20	0.8499
942471	AE2-260 C O1	8.2667	80/20	8.2667
943171	AE2-346 C	2.4178	80/20	2.4178
943611	AF1-032 C	-0.8773	Adder	-1.03
943911	AF1-059	8.1959	80/20	8.1959
944141	AF1-082	2.7621	80/20	2.7621
945711	AF1-236 C O1	163.2382	80/20	163.2382
946281	AF1-292 C	0.9810	80/20	0.9810
957491	AF2-043 C	-1.0743	Adder	-1.26
957521	AF2-046 C	20.4271	80/20	20.4271
957531	AF2-047 C	35.4310	80/20	35.4310
957821	AF2-076 C	25.4541	80/20	25.4541
957861	AF2-080 C	10.7806	80/20	10.7806
959511	AF2-242 C	13.0307	80/20	13.0307
960081	AF2-299 C	1.6533	80/20	1.6533
961671	AG1-007 C	1.4833	80/20	1.4833
961681	AG1-008 C	20.4680	80/20	20.4680
961931	AG1-036 C	2.0158	80/20	2.0158

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961941	AG1-037 C	0.8635	80/20	0.8635
962331	AG1-082 C	3.4540	80/20	3.4540
962341	AG1-083 C	3.4540	80/20	3.4540
962351	AG1-084 C	3.3758	80/20	3.3758
962361	AG1-085 C	3.3758	80/20	3.3758
962571	AG1-106 C	6.2181	80/20	6.2181
963301	AG1-179 C	3.0738	80/20	3.0738
963311	AG1-180	1.4976	80/20	1.4976
964241	AG1-285 C O1	4.2330	80/20	4.2330
964491	AG1-312 C O1	42.7392	80/20	42.7392
964501	AG1-313 C O1	6.1567	80/20	6.1567
964801	AG1-343 C	4.7135	80/20	4.7135
965291	AG1-394 C	1.4894	80/20	1.4894
965451	AG1-413 C O1	3.4453	80/20	3.4453
965591	AG1-427 C	3.9944	80/20	3.9944
965601	AG1-428 C O1	2.5661	80/20	2.5661
965631	AG1-431	94.5063	80/20	94.5063
965691	AG1-437 C O1	22.1316	80/20	22.1316
965701	AG1-438 C O1	22.1316	80/20	22.1316
965711	AG1-439 C O1	30.8475	80/20	30.8475
965721	AG1-440 C	4.2890	80/20	4.2890
965731	AG1-441 C	4.2890	80/20	4.2890
965741	AG1-442 O1	12.9101	80/20	12.9101
965751	AG1-443 O1	12.9101	80/20	12.9101
965761	AG1-444 O1	16.4520	80/20	16.4520
965771	AG1-445	2.4781	80/20	2.4781
965781	AG1-446	2.4781	80/20	2.4781
966621	AG1-532 C	0.8928	80/20	0.8928
966751	AG1-546 C	11.9536	80/20	11.9536
966801	AG1-551 C	3.8374	80/20	3.8374
966811	AG1-552 C	2.0442	80/20	2.0442
966931	AG1-431A	71.0040	80/20	71.0040
WEC	WEC	0.3330	Confirmed LTF	0.3330
LGEE	LGEE	0.6786	Confirmed LTF	0.6786
CPL	CPL	3.7381	Confirmed LTF	3.7381
CBM-W2	CBM-W2	14.1299	Confirmed LTF	14.1299
NY	NY	0.3019	Confirmed LTF	0.3019
TVA	TVA	2.6320	Confirmed LTF	2.6320
SIGE	SIGE	0.1896	Confirmed LTF	0.1896
CBM-S2	CBM-S2	40.4863	Confirmed LTF	40.4863
CBM-S1	CBM-S1	0.6593	Confirmed LTF	0.6593
MEC	MEC	1.9656	Confirmed LTF	1.9656
LAGN	LAGN	3.2847	Confirmed LTF	3.2847
AA2-074	AA2-074	2.4687	LTF	2.4687
CBM-W1	CBM-W1	14.0621	Confirmed LTF	14.0621

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
169038663	964490	AG1-312 TAP	DVP	314569	6EARLEYS	DVP	1	DVP_P1-2: LN 2092	single	571.52	252.62	257.8	DC	29.56

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315292	1DOMTR78	4.7112	80/20	4.7112
315293	1DOMTR9	24.3670	80/20	24.3670
315294	1DOMTR10	29.8615	80/20	29.8615
315611	6Z1-036WIND	4.6127	80/20	4.6127
315614	AA2-178 C	6.6233	80/20	6.6233
925121	AB2-169 C	2.5776	80/20	2.5776
927024	AC1-189 C	2.9632	80/20	2.9632
933991	AD1-023 C	62.3651	80/20	62.3651
934521	AD1-076 C	240.4160	80/20	240.4160
940491	AE2-034 C	31.4857	80/20	31.4857
945711	AF1-236 C O1	344.6937	80/20	344.6937
957531	AF2-047 C	74.8161	80/20	74.8161
957861	AF2-080 C	2.6913	80/20	2.6913
959511	AF2-242 C	13.4843	80/20	13.4843
964491	AG1-312 C O1	104.4008	80/20	104.4008
965631	AG1-431	199.5595	80/20	199.5595
965691	AG1-437 C O1	50.6808	80/20	50.6808
965701	AG1-438 C O1	50.6808	80/20	50.6808
965741	AG1-442 O1	29.5638	80/20	29.5638
965751	AG1-443 O1	29.5638	80/20	29.5638
966801	AG1-551 C	2.7061	80/20	2.7061
966931	AG1-431A	149.9320	80/20	149.9320
WEC	WEC	0.0435	Confirmed LTF	0.0435
LGEE	LGEE	0.0886	Confirmed LTF	0.0886
CPL	CPL	0.6477	Confirmed LTF	0.6477
CBM-W2	CBM-W2	2.0518	Confirmed LTF	2.0518
NY	NY	0.0680	Confirmed LTF	0.0680
TVA	TVA	0.3934	Confirmed LTF	0.3934
SIGE	SIGE	0.0310	Confirmed LTF	0.0310
CBM-S2	CBM-S2	6.6712	Confirmed LTF	6.6712
CBM-S1	CBM-S1	0.0973	Confirmed LTF	0.0973
MEC	MEC	0.2701	Confirmed LTF	0.2701
LAGN	LAGN	0.4935	Confirmed LTF	0.4935
CBM-W1	CBM-W1	1.8086	Confirmed LTF	1.8086

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
170036864	965690	AG1-437 TAP	DVP	964490	AG1-312 TAP	DVP	1	DVP_P1-2: LN 2092	single	571.52	234.39	239.56	DC	29.56

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315292	1DOMTR78	4.7112	80/20	4.7112
315293	1DOMTR9	24.3670	80/20	24.3670
315294	1DOMTR10	29.8615	80/20	29.8615
315611	6Z1-036WIND	4.6127	80/20	4.6127
315614	AA2-178 C	6.6233	80/20	6.6233
925121	AB2-169 C	2.5776	80/20	2.5776
927024	AC1-189 C	2.9632	80/20	2.9632
933991	AD1-023 C	62.3651	80/20	62.3651
934521	AD1-076 C	240.4160	80/20	240.4160
940491	AE2-034 C	31.4857	80/20	31.4857
945711	AF1-236 C O1	344.6937	80/20	344.6937
957531	AF2-047 C	74.8161	80/20	74.8161
957861	AF2-080 C	2.6913	80/20	2.6913
959511	AF2-242 C	13.4843	80/20	13.4843
965631	AG1-431	199.5595	80/20	199.5595
965691	AG1-437 C O1	50.6808	80/20	50.6808
965701	AG1-438 C O1	50.6808	80/20	50.6808
965741	AG1-442 O1	29.5638	80/20	29.5638
965751	AG1-443 O1	29.5638	80/20	29.5638
966801	AG1-551 C	2.7061	80/20	2.7061
966931	AG1-431A	149.9320	80/20	149.9320
WEC	WEC	0.0435	Confirmed LTF	0.0435
LGEE	LGEE	0.0886	Confirmed LTF	0.0886
CPL	CPL	0.6477	Confirmed LTF	0.6477
CBM-W2	CBM-W2	2.0518	Confirmed LTF	2.0518
NY	NY	0.0680	Confirmed LTF	0.0680
TVA	TVA	0.3934	Confirmed LTF	0.3934
SIGE	SIGE	0.0310	Confirmed LTF	0.0310
CBM-S2	CBM-S2	6.6712	Confirmed LTF	6.6712
CBM-S1	CBM-S1	0.0973	Confirmed LTF	0.0973
MEC	MEC	0.2701	Confirmed LTF	0.2701
LAGN	LAGN	0.4935	Confirmed LTF	0.4935
CBM-W1	CBM-W1	1.8086	Confirmed LTF	1.8086

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	CPLP-PJM	Confirmed
AA2-088	Boykins-Handsome 115kV	In Service
AA2-165	Hornertown-Whitakers 115kV	In Service
AA2-178	Mackeys 230kV	Partially in Service - Under Construction
AB1-081	Anaconda-Mayo Dunbar 115kV	In Service
AB1-132	Thelma 230kV	Suspended
AB1-173	Brink-Trego 115kV	Engineering and Procurement
AB2-015	Franklin 115kV	Engineering and Procurement
AB2-022	Elizabeth City 34.5kV	Engineering and Procurement
AB2-040	Brink 115kV	Engineering and Procurement
AB2-043	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	Partially in Service - 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
AC1-054	Kerr Dam–Eatons Ferry 115 kV	Engineering and Procurement
AC1-086	Thelma 230kV	Active
AC1-098	Dawson-South Justice 115kV	Engineering and Procurement
AC1-099	Dawson-South Justice 115kV	Engineering and Procurement
AC1-131	PJM-CPLP	Confirmed
AC1-189	Chinquapin-Everetts 230kV	Active
AC1-208	Cox-Whitakers 115kV	Engineering and Procurement
AC2-084	Dawson-South Justice 115kV	Active
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-076	Trowbridge 230 kV	Active
AD2-046	Boydton DP-Kerr Dam 115 kV	Active

Queue Number	Project Name	Status
AD2-051	Earleys – Northampton 230kV	Active
AD2-063	Central-Chase City 115kV	Active
AE1-035	Earleys 230 kV	Partially in Service - Under Construction
AE1-072	Shawboro-Sligo 230 kV	
AE1-103	Holland-Union Camp 115 kV	Active
AE1-148	Kerr Dam-Ridge Rd 115 kV	Active
AE2-033	Clubhouse-Sappony 230 kV	Active
AE2-034	Mackeys 230 kV	Active
AE2-044	Anaconda-Dunbar 115 kV	Active
AE2-053	Kerr Dam-Ridge Road 115 kV	Active
AE2-147	Swamp 230 kV	Active
AE2-151	Earleys 34.5kV	Withdrawn
AE2-225	Suffolk 34 kV	Engineering and Procurement
AE2-229	Suffolk 34 kV	Engineering and Procurement
AE2-258	Chase City 115 kV	Active
AE2-260	Clubhouse 230 kV	Active
AE2-346	Ahoskie 34.5 kV	Active
AF1-032	Suffolk 34.5 kV	Engineering and Procurement
AF1-059	Brodnax-South Hill 115 kV	Active
AF1-082	Heartsease-Mayo Dunbar DP	Active
AF1-152	Swamp 230 kV	Active
AF1-236	Mackeys 230 kV	Active
AF1-292	Fields 34.5kV	Active
AF2-043	Suffolk 34.5 kV	Engineering and Procurement
AF2-046	Tunis-Mapleton 115 kV	Active
AF2-047	Creswell-Riders Creek 115 kV	Active
AF2-076	Suffolk-Nucor Steel 230 kV	Active
AF2-080	Chinquapin-Everetts 230 kV	Active
AF2-242	Wharton 115 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-400	Franklin 13.2 kV	Engineering and Procurement
AG1-007	Tar River 12.5 kV	Active
AG1-008	Tunis-Mapleton 115 kV	Active
AG1-027	Suffolk-Holland 115 kV	Active
AG1-036	Tunis 34.5 kV	Active
AG1-037	Ahoskie 34.5 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
AG1-106	Thelma 230 kV	Active
AG1-179	Brunswick 69 kV	Active
AG1-180	Brunswick 69 kV	Active
AG1-285	Chase City-Central 115 kV	Active
AG1-312	Earleys-Cashie 230 kV	Active
AG1-313	Jackson DP-Occoneechee 115 kV	Active
AG1-343	Boykins-Murphy 115 kV	Active
AG1-394	Boykins 34.5 kV	Active
AG1-413	South Hill-Bordnax 115 kV	Active
AG1-427	Chase City-Drakes Branch 115 kV	Active
AG1-428	Danielstown 69 kV	Active
AG1-431	Mackeys 230 kV	Active

Queue Number	Project Name	Status
AG1-431A	Mackeys 230 kV	Active
AG1-437	Cashie-Earleys 230 kV	Active
AG1-438	Cashie-Earleys 230 kV	Active
AG1-439	Chinquapin 230 kV	Active
AG1-440	Palmer Springs 115 kV	Active
AG1-441	Palmer Springs 115 kV	Active
AG1-442	Cashie-Earleys 230 kV	Active
AG1-443	Cashie-Earleys 230 kV	Active
AG1-444	Chinquapin 230 kV	Active
AG1-445	Palmer Spring 115 kV	Active
AG1-446	Palmer Springs 115 kV	Active
AG1-532	Fields 34.5 kV	Active
AG1-546	Ebony-Elams Road 115 kV	Active
AG1-551	Parmeles 12.5 kV	Active
AG1-552	Carolina 13.2 kV	Active
V4-068	Murphy's 34.5kV	In Service
W1-029	Winfall 230kV	In Service
Y1-086	Morgans Corner	In Service
Z1-036	WinFall-Chowan 230kV	Suspended
Z2-027	Pasquotank 34.5kV	In Service
Z2-043	Kelford 34.5kV	In Service
Z2-044	Whitakers 34.5kV	In Service
Z2-088	Tarboro-Everetts 230kV	In Service

11.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
DVP_P1-2: LN 246-A	CONTINGENCY 'DVP_P1-2: LN 246-A' OPEN BRANCH FROM BUS 314537 TO BUS 957820 CKT 1 /* 6SUFFOLK 230.00 - AF2-076 230.00 END
DVP_P1-2: LN 246-B	CONTINGENCY 'DVP_P1-2: LN 246-B' OPEN BRANCH FROM BUS 957820 TO BUS 314575 CKT 1 /* AF2-076 230.00 - 6NUCO TP 230.00 OPEN BRANCH FROM BUS 314569 TO BUS 314575 CKT 1 /* 6EARLEYS 230.00 - 6NUCO TP 230.00 OPEN BRANCH FROM BUS 314575 TO BUS 314590 CKT 1 /* 6NUCO TP 230.00 - 6NUCOR 230.00 OPEN BUS 314575 /* ISLAND: 6NUCO TP 230.00 OPEN BUS 314590 /* ISLAND: 6NUCOR 230.00 END
DVP_P1-2: LN 2167	CONTINGENCY 'DVP_P1-2: LN 2167' OPEN BRANCH FROM BUS 313845 TO BUS 314564 CKT 1 /* 6HATHAWAY 230.00 - 6EDGECOM 230.00 END
DVP_P1-2: LN 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
DVP_P1-2: LN 218	CONTINGENCY 'DVP_P1-2: LN 218' OPEN BRANCH FROM BUS 304451 TO BUS 314574 CKT 1 /* 6GREENVILE T230.00 - 6EVERETS 230.00 END
DVP_P4-2: 2020T2144	CONTINGENCY 'DVP_P4-2: 2020T2144' /* WINFALL 230 KV OPEN BRANCH FROM BUS 313851 TO BUS 314638 CKT 1 /* 6CITYDP2 230.00 - 6ELIZ CT 230.00 OPEN BRANCH FROM BUS 313851 TO BUS 314639 CKT 1 /* 6CITYDP2 230.00 - 6TANGLEW 230.00 OPEN BRANCH FROM BUS 314639 TO BUS 314651 CKT 1 /* 6TANGLEW 230.00 - 6WINFALL 230.00 OPEN BUS 313851 /* ISLAND: 6CITYDP2 230.00 OPEN BUS 314639 /* ISLAND: 6TANGLEW 230.00 OPEN BUS 917122 /* ISLAND: Z2-027 E 230.00 OPEN BRANCH FROM BUS 313713 TO BUS 314651 CKT 1 /* 6SWAMP 230.00 - 6WINFALL 230.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 2092	CONTINGENCY 'DVP_P1-2: LN 2092' OPEN BRANCH FROM BUS 313714 TO BUS 314662 CKT 1 /* 6PERQUIMANS 230.00 - 6S HERTFORD 230.00 OPEN BRANCH FROM BUS 314651 TO BUS 314662 CKT 1 /* 6WINFALL 230.00 - 6S HERTFORD 230.00 OPEN BUS 314662 /* ISLAND: 6S HERTFORD 230.00 END
DVP_P1-2: LN 2034-A	CONTINGENCY 'DVP_P1-2: LN 2034-A' OPEN BRANCH FROM BUS 314569 TO BUS 964490 CKT 1 /* 6EARLEYS 230.00 - AG1-312 TAP 230.00 END
DVP_P1-2: LN 2034-B	CONTINGENCY 'DVP_P1-2: LN 2034-B' OPEN BRANCH FROM BUS 965690 TO BUS 964490 CKT 1 /* AG1-437 TAP 230.00 - AG1-312 TAP 230.00 END
DVP_P1-2: LN 2144	CONTINGENCY 'DVP_P1-2: LN 2144' OPEN BRANCH FROM BUS 313713 TO BUS 314651 CKT 1 /* 6SWAMP 230.00 - 6WINFALL 230.00 END
Base Case	
DVP_P1-2: LN 2131	CONTINGENCY 'DVP_P1-2: LN 2131' OPEN BRANCH FROM BUS 313714 TO BUS 313885 CKT 1 /* 6PERQUIMANS 230.00 - 6WALBMRL 230.00 OPEN BRANCH FROM BUS 313885 TO BUS 314637 CKT 1 /* 6WALBMRL 230.00 - 6EDENTON 230.00 OPEN BRANCH FROM BUS 314203 TO BUS 314637 CKT 1 /* 6MACKEYS 230.00 - 6EDENTON 230.00 OPEN BUS 313885 /* ISLAND: 6WALBMRL 230.00 OPEN BUS 314637 /* ISLAND: 6EDENTON 230.00 END
DVP_P1-2: LN 247	CONTINGENCY 'DVP_P1-2: LN 247' OPEN BRANCH FROM BUS 313713 TO BUS 314648 CKT 1 /* 6SWAMP 230.00 - 6SUNBURY 230.00 OPEN BRANCH FROM BUS 314537 TO BUS 314648 CKT 1 /* 6SUFFOLK 230.00 - 6SUNBURY 230.00 OPEN BUS 314648 /* ISLAND: 6SUNBURY 230.00 END

Contingency Name	Contingency Definition
DVP_P7-1: LN 2058-2181	CONTINGENCY 'DVP_P7-1: LN 2058-2181' /* . OPEN BRANCH FROM BUS 304222 TO BUS 313845 CKT 1 /* 6ROCKYMT230T230.00 - 6HATHAWAY 230.00 OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 2 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 OPEN BUS 304226 /* ISLAND: 6PA-RMOUNT#4115.00 OPEN BRANCH FROM BUS 304226 TO BUS 314591 CKT 1 /* 6PA-RMOUNT#4230.00 - 6NASH 230.00 OPEN BRANCH FROM BUS 313845 TO BUS 314591 CKT 1 /* 6HATHAWAY 230.00 - 6NASH 230.00 OPEN BUS 314591 /* ISLAND: 6NASH 230.00 END

12 Short Circuit Analysis - Primary POI

The following Breakers are overdutied

None

12.1 System Reinforcements - Short Circuit

None

13 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AG1-442 was evaluated as a 35.0 MW (Capacity 35.0 MW) injection as an uprate to AG1-437 which is a direct connection at the Cashie 230 kV substation in the Dominion area. Project AG1-442 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-442 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

13.1 Generation Deliverability

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

None

13.2 Multiple Facility Contingency

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

None

13.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168526974	313714	6PERQUIMANS	230.0	DVP	314662	6SHERTFORD	230.0	DVP	1	Base Case	single	733.200012207	151.18	152.48	DC	9.58
168526986	313725	6DRY BREAD	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	single	375.059997559	162.54	163.56	DC	3.83
174305964	313857	6WINDSOR DP	230.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P4-2: 246T247	breaker	669.0	104.91	106.04	DC	7.55
168526999	313885	6WALBMRL	230.0	DVP	313714	6PERQUIMANS	230.0	DVP	1	Base Case	single	733.200012207	146.32	147.62	DC	9.59
168832170	314203	6MACKEYS	230.0	DVP	314637	6EDENTON	230.0	DVP	1	Base Case	single	731.320007324	146.67	147.98	DC	9.59
163841846	314554	3BTLEBRO	115.0	DVP	304223	3ROCKYMT115T	115.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	164.0	325.75	326.37	DC	2.25
169038797	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P1-2: LN 246-B	single	375.059997559	108.13	110.11	DC	7.41
173907537	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P4-2: 246T247	breaker	459.0	168.29	170.02	DC	7.94
173907516	314568	3EARLEYS	115.0	DVP	314569	6EARLEYS	230.0	DVP	2	DVP_P4-2: 201262	breaker	208.0	200.79	202.48	DC	3.5
174479843	314568	3EARLEYS	115.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P4-2: 201462	breaker	231.699996948	157.52	158.18	DC	2.89
169038675	314569	6EARLEYS	230.0	DVP	314575	6NUCOTP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	238.21	240.47	DC	12.91

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPA CT
169038678	314569	GEARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	Base Case	single	571.520019531	144.41	145.93	DC	8.66
174305983	314569	GEARLEYS	230.0	DVP	313857	6WINDSOR P	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	102.15	103.23	DC	7.55
169038805	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	2	DVP_P1-2: LN 2034-A	single	241.391983032	114.99	117.39	DC	5.81
174305730	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	2	DVP_P4-2: H2T2014	breaker	289.299987793	158.19	159.58	DC	4.0
174305779	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P4-2: H4T2014	breaker	328.700012207	137.7	138.91	DC	3.97
163840984	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P4-2: 2020T2144	breaker	478.0	223.18	224.6	DC	6.82
163841159	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P1-2: LN 2167	single	478.0	149.75	151.09	DC	6.4
163841160	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P1-2: LN 2092	single	478.0	154.42	155.84	DC	6.81
163841164	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	Base Case	single	478.0	116.95	118.03	DC	5.12
163841849	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	478.0	227.35	228.64	DC	6.15
169038693	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	229.53	231.79	DC	12.91
169038696	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	Base Case	single	571.520019531	135.72	137.23	DC	8.66
175942292	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P1-2: LN 238-B	single	571.520019531	177.88	179.53	DC	9.68
168527003	314583	6LAKEVIEW	230.0	DVP	313725	6DRY BREAD	230.0	DVP	1	Base Case	single	375.059997559	146.64	147.66	DC	3.84
169038728	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	DVP_P1-2: LN 2034-A	single	269.779998779	158.81	162.3	DC	9.42
169038737	314614	3TRWBRDG 2	115.0	DVP	314596	3POPLR C	115.0	DVP	1	DVP_P1-2: LN 2034-A	single	285.760009766	149.58	152.88	DC	9.42
169038792	314616	6TRWBRDG	230.0	DVP	314614	3TRWBRDG2	115.0	DVP	1	DVP_P1-2: LN 2034-A	single	182.36000061	114.29	117.49	DC	5.84
174305714	314616	6TRWBRDG	230.0	DVP	314614	3TRWBRDG2	115.0	DVP	1	DVP_P4-2: 203462	breaker	199.800003052	171.89	174.81	DC	5.83
168526993	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	Base Case	single	733.200012207	146.33	147.64	DC	9.59
174096899	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	277.71	279.19	DC	10.34
175125654	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P1-2: LN 247-B	single	571.520019531	176.78	178.18	DC	8.04
169249909	314662	6S HERTFORD	230.0	DVP	314651	6WINFALL	230.0	DVP	1	Base Case	single	733.200012207	152.04	153.34	DC	9.58
168832115	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	233.86	236.12	DC	12.91
168832118	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	Base Case	single	571.520019531	140.1	141.62	DC	8.66

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
175942286	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-2: LN 238-B	single	571.520019531	182.27	183.92	DC	9.68
169038663	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	252.62	257.8	DC	29.56
169038666	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	Base Case	single	571.520019531	129.56	133.46	DC	22.29
174096896	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P4-2: 2020T2144	breaker	699.0	315.41	319.64	DC	29.56
175942280	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P1-2: LN 2020	single	571.520019531	153.08	157.17	DC	23.35
170036864	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	234.39	239.56	DC	29.56
170036867	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	Base Case	single	571.520019531	113.27	117.17	DC	22.29
174096897	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	DVP_P4-2: 2020T2144	breaker	699.0	296.77	301.0	DC	29.56

13.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
168526971	313714	6PERQUIMANS	230.0	DVP	314662	6SHERTFORD	230.0	DVP	1	Base Case	operation	733.200012207	218.12	219.42	DC	9.58
168526984	313725	6DRY BREAD	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	operation	375.059997559	226.97	227.99	DC	3.83
168527318	313857	6WINDSORDP	230.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P1-2: LN 246-B	operation	547.08001709	115.47	116.79	DC	7.2
168526996	313885	6WALBMRL	230.0	DVP	313714	6PERQUIMANS	230.0	DVP	1	Base Case	operation	733.200012207	194.21	195.52	DC	9.59
168832167	314203	6MACKEYS	230.0	DVP	314637	6EDENTON	230.0	DVP	1	Base Case	operation	731.320007324	194.68	195.99	DC	9.59
168832175	314203	6MACKEYS	230.0	DVP	314594	6PLYMOTH	230.0	DVP	1	Base Case	operation	789.599975586	104.34	105.56	DC	9.6
169038794	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P1-2: LN 246-B	operation	375.059997559	177.2	179.18	DC	7.41

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE C T LOADIN G %	POST PROJE C T LOADIN G %	AC D C	MW IMPAC T
169038796	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	Base Case	operati on	375.059997559	118.43	119.83	DC	5.27
168527343	314569	6EARLEYS	230.0	DVP	313857	6WINDSOR P	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	112.69	113.95	DC	7.2
169038673	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	326.61	328.87	DC	12.91
169038677	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	Base Case	operati on	571.520019531	193.84	195.36	DC	8.66
169038803	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	2	DVP_P 1-2: LN 2034-A	operati on	241.391983032	180.29	182.7	DC	5.81
169038882	314573	3EVERETS	115.0	DVP	314574	6EVERETS	230.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	274.855987549	143.95	145.97	DC	5.54
163841153	314574	6EVERETS	230.0	DVP	304451	6GREENVILE T	230.0	CPL E	1	DVP_P 1-2: LN 2092	operati on	478.0	221.0	222.42	DC	6.81
163841158	314574	6EVERETS	230.0	DVP	304451	6GREENVILE T	230.0	CPL E	1	Base Case	operati on	478.0	162.43	163.5	DC	5.12
169038958	314574	6EVERETS	230.0	DVP	927020	AC1-189 TAP	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	101.43	102.55	DC	4.92
169038691	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	317.93	320.19	DC	12.91
169038695	314575	6NUCO TP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	185.15	186.66	DC	8.66
168527001	314583	6LAKEVEW	230.0	DVP	313725	6DRY BREAD	230.0	DVP	1	Base Case	operati on	375.059997559	207.09	208.11	DC	3.84
169038784	314583	6LAKEVEW	230.0	DVP	314561	6CAROLNA	230.0	DVP	1	Base Case	operati on	375.059997559	119.08	120.48	DC	5.27
168832446	314594	6PLYMOTH	230.0	DVP	314203	6MACKEYS	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	789.599975586	132.86	134.4	DC	12.2
169038757	314594	6PLYMOTH	230.0	DVP	314616	6TRWBRDG	230.0	DVP	1	Base Case	operati on	789.599975586	101.61	102.82	DC	9.6
169038726	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	269.779998779	243.71	247.2	DC	9.42
169038730	314596	3POPLR C	115.0	DVP	314573	3EVERETS	115.0	DVP	1	Base Case	operati on	247.220001221	111.57	112.04	DC	2.57
169038847	314609	6TARBORO	230.0	DVP	314610	6TOTDP4	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	157.01	158.13	DC	4.91
169038851	314610	6TOTDP4	230.0	DVP	314564	6EDGECOM	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	154.55	155.66	DC	4.91
169038735	314614	3TRWBRDG 2	115.0	DVP	314596	3POPLR C	115.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	285.760009766	229.73	233.02	DC	9.42
169038707	314616	6TRWBRDG	230.0	DVP	933990	AD1-023 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	154.05	156.28	DC	12.71
169038790	314616	6TRWBRDG	230.0	DVP	314614	3TRWBRDG 2	115.0	DVP	1	DVP_P 1-2: LN 2034-A	operati on	182.36000061	188.3	191.5	DC	5.84
169038897	314616	6TRWBRDG	230.0	DVP	314594	6PLYMOTH	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	789.599975586	135.6	137.14	DC	12.2
169038689	314620	6CASHIE	230.0	DVP	965690	AG1-437 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	162.57	164.79	DC	12.71
169038966	314620	6CASHIE	230.0	DVP	933990	AD1-023 TAP	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	102.42	105.08	DC	15.22
168526990	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	Base Case	operati on	733.200012207	194.22	195.53	DC	9.59

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPAC T
175125653	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P 1-2: LN 247-B	operati on	571.520019531	279.98	281.39	DC	8.04
169249906	314662	6S HERTFORD	230.0	DVP	314651	6WINFALL	230.0	DVP	1	Base Case	operati on	733.200012207	218.98	220.28	DC	9.58
168527273	927020	AC1-189 TAP	230.0	DVP	313701	6CHINQUAPI N	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987793	119.07	120.19	DC	4.92
169038683	933990	AD1-023 TAP	230.0	DVP	314620	6CASHIE	230.0	DVP	1	Base Case	operati on	571.520019531	164.7	166.93	DC	12.71
169038938	933990	AD1-023 TAP	230.0	DVP	314616	6TRWBRDG	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	112.72	115.38	DC	15.22
168832113	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	323.38	325.64	DC	12.91
168832117	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	Base Case	operati on	571.520019531	191.15	192.66	DC	8.66
169038661	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	383.67	388.84	DC	29.56
169038665	964490	AG1-312 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	Base Case	operati on	571.520019531	201.39	205.29	DC	22.29
169038962	965690	AG1-437 TAP	230.0	DVP	314620	6CASHIE	230.0	DVP	1	DVP_P 1-2: LN 246-B	operati on	571.520019531	104.54	107.2	DC	15.22
170036862	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019531	360.87	366.04	DC	29.56
170036866	965690	AG1-437 TAP	230.0	DVP	964490	AG1-312 TAP	230.0	DVP	1	Base Case	operati on	571.520019531	183.56	187.46	DC	22.29

13.5 Flow Gate Details - Secondary POI

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

13.5.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168526974	313714	6PERQUIMANS	DVP	314662	6S HERTFORD	DVP	1	Base Case	single	733.2	151.18	152.48	DC	9.58

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1246	80/20	2.1246
313719	3CHESTNUT	0.5151	80/20	0.5151
314582	3KELFORD	0.2329	80/20	0.2329
314589	3MURPHYS	0.0369	80/20	0.0369
314623	3WITAKRS	0.0937	80/20	0.0937
315126	1ROARAP2	0.5104	80/20	0.5104
315128	1ROARAP4	0.4870	80/20	0.4870
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315136	1ROSEMG1	0.8630	80/20	0.8630
315137	1ROSEMS1	0.5351	80/20	0.5351
315138	1ROSEMG2	0.4045	80/20	0.4045
315139	1GASTONA	1.2433	80/20	1.2433
315141	1GASTONB	1.2433	80/20	1.2433
315292	1DOMTR78	2.6036	80/20	2.6036
315293	1DOMTR9	13.4660	80/20	13.4660
315294	1DOMTR10	16.5025	80/20	16.5025
315601	1CONETOE2SOL	0.8384	80/20	0.8384
315602	1HOLLOMAN SOL	1.2173	80/20	1.2173
315606	3AA2-053SOLA	0.6446	80/20	0.6446
315607	3AA1-063SOLA	0.4717	80/20	0.4717

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315611	6Z1-036WIND	4.3262	80/20	4.3262
315614	AA2-178 C	4.4654	80/20	4.4654
316020	AB2-059 C OP	0.7145	80/20	0.7145
316087	AB2-174 C	0.3326	80/20	0.3326
316140	AB2-099 C (Suspended)	0.3830	80/20	0.3830
920591	AA2-165 C	0.0691	80/20	0.0691
922922	AB1-081 C OP	0.6063	80/20	0.6063
923991	AB2-040 C O1	2.3140	80/20	2.3140
925121	AB2-169 C	1.6118	80/20	1.6118
925591	AC1-034 C	2.9335	80/20	2.9335
926070	AC1-086 C	8.8619	80/20	8.8619
926201	AC1-098 C	3.2208	80/20	3.2208
926211	AC1-099 C	1.0793	80/20	1.0793
927024	AC1-189 C	5.8761	80/20	5.8761
927145	AC1-208 C	4.1533	80/20	4.1533
932631	AC2-084 C	4.5914	80/20	4.5914
933991	AD1-023 C	25.2059	80/20	25.2059
934331	AD1-057 C O1	4.3272	80/20	4.3272
934521	AD1-076 C	124.5182	80/20	124.5182
936401	AD2-051 C O1	7.4382	80/20	7.4382
938221	AE1-035 C	0.3044	80/20	0.3044
940491	AE2-034 C	21.2276	80/20	21.2276
940571	AE2-044 C	1.9214	80/20	1.9214
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1247	80/20	0.1247
943171	AE2-346 C	0.9192	80/20	0.9192
944141	AF1-082	1.2352	80/20	1.2352
945711	AF1-236 C O1	232.3921	80/20	232.3921
957521	AF2-046 C	7.9171	80/20	7.9171
957531	AF2-047 C	50.4409	80/20	50.4409
957861	AF2-080 C	5.3369	80/20	5.3369
959511	AF2-242 C	9.7380	80/20	9.7380
961671	AG1-007 C	0.7133	80/20	0.7133
961681	AG1-008 C	7.9330	80/20	7.9330
961931	AG1-036 C	0.7722	80/20	0.7722
961941	AG1-037 C	0.3283	80/20	0.3283
962331	AG1-082 C	1.3132	80/20	1.3132
962341	AG1-083 C	1.3132	80/20	1.3132
962351	AG1-084 C	1.2770	80/20	1.2770
962361	AG1-085 C	1.2770	80/20	1.2770
962571	AG1-106 C	2.4644	80/20	2.4644
964491	AG1-312 C O1	18.8485	80/20	18.8485
964501	AG1-313 C O2	2.4216	80/20	2.4216
964801	AG1-343 C	1.8896	80/20	1.8896
965291	AG1-394 C	0.6020	80/20	0.6020
965631	AG1-431	134.5428	80/20	134.5428
965691	AG1-437 C O1	16.4232	80/20	16.4232
965701	AG1-438 C O1	16.4232	80/20	16.4232
965711	AG1-439 C O1	15.0405	80/20	15.0405
965741	AG1-442 O1	9.5802	80/20	9.5802
965751	AG1-443 O1	9.5802	80/20	9.5802
965761	AG1-444 O1	8.0216	80/20	8.0216

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966801	AG1-551 C	2.4609	80/20	2.4609
966811	AG1-552 C	0.8103	80/20	0.8103
966931	AG1-431A	101.0840	80/20	101.0840
WEC	WEC	0.1518	Confirmed LTF	0.1518
LGEE	LGEE	0.3098	Confirmed LTF	0.3098
CPL	CPL	1.7581	Confirmed LTF	1.7581
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.1477	Confirmed LTF	0.1477
TVA	TVA	1.2166	Confirmed LTF	1.2166
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	18.9277	Confirmed LTF	18.9277
CBM-S1	CBM-S1	0.3044	Confirmed LTF	0.3044
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.5190	Confirmed LTF	1.5190
CBM-W1	CBM-W1	6.4071	Confirmed LTF	6.4071

13.5.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
168526986	313725	6DRY BREAD	DVP	314563	6CLUBHSE	DVP	1	Base Case	single	375.06	162.54	163.56	DC	3.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.9698	80/20	0.9698
314582	3KELFORD	0.2807	80/20	0.2807
314589	3MURPHYS	0.0540	80/20	0.0540
314623	3WITAKRS	0.1830	80/20	0.1830
315115	1S HAMPT1	0.5765	80/20	0.5765
315126	1ROARAP2	1.0936	80/20	1.0936
315128	1ROARAP4	1.0435	80/20	1.0435
315131	1EDGECSA (Deactivation : 22/04/2019)	8.6188	80/20	8.6188
315132	1EDGECSB (Deactivation : 22/04/2019)	8.6188	80/20	8.6188
315136	1ROSEMG1	3.7813	80/20	3.7813
315137	1ROSEMS1	2.3448	80/20	2.3448
315138	1ROSEMG2	1.7722	80/20	1.7722
315139	1GASTONA	5.8256	80/20	5.8256
315141	1GASTONB	5.8256	80/20	5.8256
315292	1DOMTR78	0.7594	80/20	0.7594
315293	1DOMTR9	3.9278	80/20	3.9278
315294	1DOMTR10	4.8135	80/20	4.8135
315601	1CONETOESOL	1.1056	80/20	1.1056
315602	1HOLLOMAN SOL	1.1039	80/20	1.1039
315606	3AA2-053SOLA	1.1769	80/20	1.1769
315607	3AA1-063SOLA	0.9738	80/20	0.9738
315608	3AA2-088SOLA	0.5511	80/20	0.5511

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315614	AA2-178 C	0.6482	80/20	0.6482
316020	AB2-059 C OP	1.4653	80/20	1.4653
316096	AB2-100 C1	3.2647	80/20	3.2647
316098	AB2-100 C2	3.2647	80/20	3.2647
316103	AB2-015 C	3.1140	80/20	3.1140
316129	AC1-054 C	3.7376	80/20	3.7376
316140	AB2-099 C (Suspended)	0.4301	80/20	0.4301
920591	AA2-165 C	0.1302	80/20	0.1302
922922	AB1-081 C OP	1.2433	80/20	1.2433
925121	AB2-169 C	0.6328	80/20	0.6328
925591	AC1-034 C	6.0158	80/20	6.0158
926070	AC1-086 C	41.5236	80/20	41.5236
926201	AC1-098 C	5.0737	80/20	5.0737
926211	AC1-099 C	1.7002	80/20	1.7002
927024	AC1-189 C	6.7717	80/20	6.7717
927145	AC1-208 C	7.5765	80/20	7.5765
932631	AC2-084 C	7.2328	80/20	7.2328
933991	AD1-023 C	7.8524	80/20	7.8524
934331	AD1-057 C O1	14.1603	80/20	14.1603
934521	AD1-076 C	29.0650	80/20	29.0650
936401	AD2-051 C O1	7.1222	80/20	7.1222
938221	AE1-035 C	0.2760	80/20	0.2760
940491	AE2-034 C	3.0815	80/20	3.0815
940571	AE2-044 C	3.9402	80/20	3.9402
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1317	80/20	0.1317
943171	AE2-346 C	1.0322	80/20	1.0322
944141	AF1-082	2.5330	80/20	2.5330
945711	AF1-236 C O1	33.7355	80/20	33.7355
957521	AF2-046 C	10.8942	80/20	10.8942
957531	AF2-047 C	7.3223	80/20	7.3223
957861	AF2-080 C	6.1503	80/20	6.1503
959511	AF2-242 C	4.8267	80/20	4.8267
961091	AF2-400 C	0.1682	80/20	0.1682
961671	AG1-007 C	1.0507	80/20	1.0507
961681	AG1-008 C	10.9160	80/20	10.9160
961931	AG1-036 C	0.9432	80/20	0.9432
961941	AG1-037 C	0.3686	80/20	0.3686
962331	AG1-082 C	1.4746	80/20	1.4746
962341	AG1-083 C	1.4746	80/20	1.4746
962351	AG1-084 C	1.3486	80/20	1.3486
962361	AG1-085 C	1.3486	80/20	1.3486
962571	AG1-106 C	11.5474	80/20	11.5474
964491	AG1-312 C O1	14.1747	80/20	14.1747
964501	AG1-313 C O2	3.6976	80/20	3.6976
964801	AG1-343 C	3.4163	80/20	3.4163
965291	AG1-394 C	1.1504	80/20	1.1504
965631	AG1-431	19.5311	80/20	19.5311
965691	AG1-437 C O1	6.5604	80/20	6.5604
965701	AG1-438 C O1	6.5604	80/20	6.5604
965711	AG1-439 C O1	19.8330	80/20	19.8330
965721	AG1-440 C	2.5574	80/20	2.5574

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965731	AG1-441 C	2.5574	80/20	2.5574
965741	AG1-442 O1	3.8269	80/20	3.8269
965751	AG1-443 O1	3.8269	80/20	3.8269
965761	AG1-444 O1	10.5776	80/20	10.5776
965771	AG1-445	1.4776	80/20	1.4776
965781	AG1-446	1.4776	80/20	1.4776
966751	AG1-546 C	8.7526	80/20	8.7526
966801	AG1-551 C	1.5567	80/20	1.5567
966811	AG1-552 C	1.7363	80/20	1.7363
966931	AG1-431A	14.6740	80/20	14.6740
WEC	WEC	0.2057	Confirmed LTF	0.2057
LGEE	LGEE	0.4197	Confirmed LTF	0.4197
CPL	CPL	2.5253	Confirmed LTF	2.5253
CBM-W2	CBM-W2	9.1123	Confirmed LTF	9.1123
NY	NY	0.2544	Confirmed LTF	0.2544
TVA	TVA	1.7206	Confirmed LTF	1.7206
SIGE	SIGE	0.1316	Confirmed LTF	0.1316
CBM-S2	CBM-S2	27.3737	Confirmed LTF	27.3737
CBM-S1	CBM-S1	0.4283	Confirmed LTF	0.4283
MEC	MEC	1.2362	Confirmed LTF	1.2362
LAGN	LAGN	2.1455	Confirmed LTF	2.1455
AA2-074	AA2-074	1.6677	LTF	1.6677
CBM-W1	CBM-W1	8.6223	Confirmed LTF	8.6223

13.5.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174305964	313857	6WINDSORDP	DVP	314574	6EVERETS	DVP	1	DVP_P4-2: 246T247	breaker	669.0	104.91	106.04	DC	7.55

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.5985	Adder	3.06
314539	3UNCAMP	2.0846	Adder	2.45
314541	3WATKINS	0.2756	Adder	0.32
314572	3EMPORIA	0.1421	Adder	0.17
314582	3KELFORD	0.4128	50/50	0.4128
314589	3MURPHYS	0.0772	50/50	0.0772
314594	6PLYMOTH	0.0702	50/50	0.0702
315602	1HOLLOMANSOL	2.6086	50/50	2.6086
315606	3AA2-053SOLA	1.0308	50/50	1.0308
315608	3AA2-088SOLA	0.6272	50/50	0.6272
315614	AA2-178 C	1.0318	50/50	1.0318
316088	AB2-174 E	2.3405	Adder	2.75
316097	AB2-100 E1	0.8976	Adder	1.06
316099	AB2-100 E2	0.8976	Adder	1.06
316103	AB2-015 C	3.2504	Adder	3.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316104	AB2-015 E	2.6653	Adder	3.14
316129	AC1-054 C	2.1802	Adder	2.56
316140	AB2-099 C (Suspended)	0.7823	50/50	0.7823
316141	AB2-099 E (Suspended)	0.3353	50/50	0.3353
900672	V4-068 E	0.2682	50/50	0.2682
901082	W1-029 E	16.6587	Adder	19.6
913392	Y1-086 E	0.5878	Adder	0.69
916042	Z1-036 E (Suspended)	19.6363	Adder	23.1
917122	Z2-027 E	0.3186	Adder	0.37
917332	Z2-043 E	1.2312	50/50	1.2312
918492	AA1-063AE OP	2.0006	Adder	2.35
918512	AA1-065 E OP	7.4035	50/50	7.4035
919692	AA2-053 E OP	2.6827	50/50	2.6827
920042	AA2-088 E OP	6.4864	50/50	6.4864
920692	AA2-178 E	2.8027	50/50	2.8027
923262	AB1-132 C OP (Suspended)	6.5288	Adder	7.68
923263	AB1-132 E OP (Suspended)	2.7981	Adder	3.29
923573	AB1-173 E OP	0.4052	Adder	0.48
923832	AB2-022 E	0.3318	Adder	0.39
923991	AB2-040 C O1	2.8301	Adder	3.33
923992	AB2-040 E O1	2.3155	Adder	2.72
925785	AC1-054 E	1.0044	Adder	1.18
926070	AC1-086 C	9.6145	Adder	11.31
926071	AC1-086 E	4.3759	Adder	5.15
926201	AC1-098 C	3.0832	Adder	3.63
926202	AC1-098 E	1.8368	Adder	2.16
926211	AC1-099 C	1.0332	Adder	1.22
926212	AC1-099 E	0.6068	Adder	0.71
927145	AC1-208 C	2.8701	Adder	3.38
927146	AC1-208 E	1.2693	Adder	1.49
932631	AC2-084 C	4.3952	Adder	5.17
932632	AC2-084 E	2.1648	Adder	2.55
933991	AD1-023 C	13.9324	50/50	13.9324
933992	AD1-023 E	7.5848	50/50	7.5848
934521	AD1-076 C	42.8423	50/50	42.8423
934522	AD1-076 E	21.8152	50/50	21.8152
936401	AD2-051 C O1	15.8526	50/50	15.8526
936402	AD2-051 E O1	6.8069	50/50	6.8069
938221	AE1-035 C	0.6522	50/50	0.6522
938222	AE1-035 E	2.0360	50/50	2.0360
938771	AE1-103 C	1.1215	Adder	1.32
938772	AE1-103 E	1.5488	Adder	1.82
940491	AE2-034 C	4.9048	50/50	4.9048
940492	AE2-034 E	2.1020	50/50	2.1020
941501	AE2-147 C	5.7444	Adder	6.76
941502	AE2-147 E	3.8296	Adder	4.51
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2535	50/50	0.2535
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.8652	50/50	0.8652
942471	AE2-260 C O1	4.2585	Adder	5.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942472	AE2-260 E O1	6.0401	Adder	7.11
943171	AE2-346 C	1.8775	50/50	1.8775
943172	AE2-346 E	0.8046	50/50	0.8046
944871	AF1-152 C	1.9148	Adder	2.25
944872	AF1-152 E	1.2765	Adder	1.5
945711	AF1-236 C O1	53.6954	50/50	53.6954
945712	AF1-236 E O1	33.1655	50/50	33.1655
946281	AF1-292 C	0.4794	Adder	0.56
946282	AF1-292 E	0.3232	Adder	0.38
957521	AF2-046 C	16.4700	50/50	16.4700
957522	AF2-046 E	8.2845	50/50	8.2845
957531	AF2-047 C	11.6546	50/50	11.6546
957532	AF2-047 E	5.8624	50/50	5.8624
957821	AF2-076 C	9.2553	50/50	9.2553
957822	AF2-076 E	6.1702	50/50	6.1702
960081	AF2-299 C	0.8080	Adder	0.95
960082	AF2-299 E	0.5386	Adder	0.63
961091	AF2-400 C	0.1755	Adder	0.21
961092	AF2-400 E	0.2880	Adder	0.34
961601	AG1-000A BAT	2.4834	Merchant Transmission	2.4834
961681	AG1-008 C	16.5030	50/50	16.5030
961682	AG1-008 E	8.2515	50/50	8.2515
961931	AG1-036 C	1.5885	50/50	1.5885
961932	AG1-036 E	1.0590	50/50	1.0590
961941	AG1-037 C	0.6705	50/50	0.6705
961942	AG1-037 E	0.4470	50/50	0.4470
962331	AG1-082 C	2.6821	50/50	2.6821
962332	AG1-082 E	1.7881	50/50	1.7881
962341	AG1-083 C	2.6821	50/50	2.6821
962342	AG1-083 E	1.7881	50/50	1.7881
962351	AG1-084 C	2.5955	50/50	2.5955
962352	AG1-084 E	1.7303	50/50	1.7303
962361	AG1-085 C	2.5955	50/50	2.5955
962362	AG1-085 E	1.7303	50/50	1.7303
962571	AG1-106 C	1.4171	Adder	3.15
962572	AG1-106 E	0.6426	Adder	1.43
964491	AG1-312 C O1	32.5987	50/50	32.5987
964492	AG1-312 E O1	8.1497	50/50	8.1497
964501	AG1-313 C O2	4.2797	50/50	4.2797
964502	AG1-313 E O2	2.8531	50/50	2.8531
964801	AG1-343 C	4.0527	50/50	4.0527
964802	AG1-343 E	3.1842	50/50	3.1842
965291	AG1-394 C	1.3004	50/50	1.3004
965292	AG1-394 E	0.8670	50/50	0.8670
965631	AG1-431	31.0868	50/50	31.0868
965691	AG1-437 C O1	12.9348	50/50	12.9348
965692	AG1-437 E O1	8.6232	50/50	8.6232
965701	AG1-438 C O1	12.9348	50/50	12.9348
965702	AG1-438 E O1	8.6232	50/50	8.6232
965741	AG1-442 O1	7.5453	50/50	7.5453
965751	AG1-443 O1	7.5453	50/50	7.5453
965762	AG1-444 BAT	14.0912	50/50	14.0912

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966491	AG1-518 O2	1.6916	Adder	3.75
966621	AG1-532 C	0.2312	Adder	0.51
966622	AG1-532 E	0.1542	Adder	0.34
966751	AG1-546 C	2.6914	Adder	5.97
966752	AG1-546 E	1.4441	Adder	3.21
966811	AG1-552 C	0.5186	Adder	1.15
966812	AG1-552 E	0.2223	Adder	0.49
966931	AG1-431A	23.3560	50/50	23.3560
G-007A	G-007A	0.5490	Confirmed LTF	0.5490
VFT	VFT	1.4642	Confirmed LTF	1.4642
CALDERWOOD	CALDERWOOD	0.6739	Confirmed LTF	0.6739
PRAIRIE	PRAIRIE	2.2937	Confirmed LTF	2.2937
CHEOAH	CHEOAH	0.6912	Confirmed LTF	0.6912
CBM-N	CBM-N	0.2664	Confirmed LTF	0.2664
COTTONWOOD	COTTONWOOD	2.5158	Confirmed LTF	2.5158
HAMLET	HAMLET	1.5685	Confirmed LTF	1.5685
GIBSON	GIBSON	0.3969	Confirmed LTF	0.3969
BLUEG	BLUEG	1.2187	Confirmed LTF	1.2187
TRIMBLE	TRIMBLE	0.3862	Confirmed LTF	0.3862
CATAWBA	CATAWBA	0.7255	Confirmed LTF	0.7255

13.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168526999	313885	6WALBMRL	DVP	313714	6PERQUIMANS	DVP	1	Base Case	single	733.2	146.32	147.62	DC	9.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1331	80/20	2.1331
313719	3CHESTNUT	0.5165	80/20	0.5165
314582	3KELFORD	0.2333	80/20	0.2333
314589	3MURPHYS	0.0370	80/20	0.0370
314623	3WITAKRS	0.0940	80/20	0.0940
315126	1ROARAP2	0.5120	80/20	0.5120
315128	1ROARAP4	0.4886	80/20	0.4886
315131	1EDGE CMA (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315132	1EDGE CMB (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315136	1ROSEMG1	0.8655	80/20	0.8655
315137	1ROSEMS1	0.5367	80/20	0.5367
315138	1ROSEMG2	0.4057	80/20	0.4057
315139	1GASTONA	1.2468	80/20	1.2468
315141	1GASTONB	1.2468	80/20	1.2468
315292	1DOMTR78	2.6052	80/20	2.6052
315293	1DOMTR9	13.4746	80/20	13.4746
315294	1DOMTR10	16.5130	80/20	16.5130

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315601	1CONETOE2SOL	0.8402	80/20	0.8402
315602	1HOLLOMANSOL	1.2190	80/20	1.2190
315606	3AA2-053SOLA	0.6464	80/20	0.6464
315607	3AA1-063SOLA	0.4733	80/20	0.4733
315614	AA2-178 C	4.4673	80/20	4.4673
316020	AB2-059 C OP	0.7167	80/20	0.7167
316087	AB2-174 C	0.3340	80/20	0.3340
316140	AB2-099 C (Suspended)	0.3837	80/20	0.3837
920591	AA2-165 C	0.0693	80/20	0.0693
922922	AB1-081 C OP	0.6081	80/20	0.6081
923991	AB2-040 C O1	2.3232	80/20	2.3232
925121	AB2-169 C	1.6131	80/20	1.6131
925591	AC1-034 C	2.9425	80/20	2.9425
926070	AC1-086 C	8.8866	80/20	8.8866
926201	AC1-098 C	3.2283	80/20	3.2283
926211	AC1-099 C	1.0818	80/20	1.0818
927024	AC1-189 C	5.8874	80/20	5.8874
927145	AC1-208 C	4.1650	80/20	4.1650
932631	AC2-084 C	4.6021	80/20	4.6021
933991	AD1-023 C	25.2222	80/20	25.2222
934331	AD1-057 C O1	4.3394	80/20	4.3394
934521	AD1-076 C	124.5855	80/20	124.5855
936401	AD2-051 C O1	7.4492	80/20	7.4492
938221	AE1-035 C	0.3048	80/20	0.3048
940491	AE2-034 C	21.2365	80/20	21.2365
940571	AE2-044 C	1.9272	80/20	1.9272
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1250	80/20	0.1250
943171	AE2-346 C	0.9210	80/20	0.9210
944141	AF1-082	1.2389	80/20	1.2389
945711	AF1-236 C O1	232.4887	80/20	232.4887
957521	AF2-046 C	7.9381	80/20	7.9381
957531	AF2-047 C	50.4619	80/20	50.4619
957861	AF2-080 C	5.3471	80/20	5.3471
959511	AF2-242 C	9.7474	80/20	9.7474
961671	AG1-007 C	0.7149	80/20	0.7149
961681	AG1-008 C	7.9540	80/20	7.9540
961931	AG1-036 C	0.7739	80/20	0.7739
961941	AG1-037 C	0.3289	80/20	0.3289
962331	AG1-082 C	1.3157	80/20	1.3157
962341	AG1-083 C	1.3157	80/20	1.3157
962351	AG1-084 C	1.2792	80/20	1.2792
962361	AG1-085 C	1.2792	80/20	1.2792
962571	AG1-106 C	2.4713	80/20	2.4713
964491	AG1-312 C O1	18.8709	80/20	18.8709
964501	AG1-313 C O2	2.4271	80/20	2.4271
964801	AG1-343 C	1.8970	80/20	1.8970
965291	AG1-394 C	0.6046	80/20	0.6046
965631	AG1-431	134.5987	80/20	134.5987
965691	AG1-437 C O1	16.4358	80/20	16.4358
965701	AG1-438 C O1	16.4358	80/20	16.4358
965711	AG1-439 C O1	15.0720	80/20	15.0720

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965741	AG1-442 O1	9.5876	80/20	9.5876
965751	AG1-443 O1	9.5876	80/20	9.5876
965761	AG1-444 O1	8.0384	80/20	8.0384
966801	AG1-551 C	2.4639	80/20	2.4639
966811	AG1-552 C	0.8130	80/20	0.8130
966931	AG1-431A	101.1260	80/20	101.1260
WEC	WEC	0.1581	Confirmed LTF	0.1581
LGEE	LGEE	0.3223	Confirmed LTF	0.3223
CPL	CPL	1.7718	Confirmed LTF	1.7718
CBM-W2	CBM-W2	6.6931	Confirmed LTF	6.6931
NY	NY	0.1366	Confirmed LTF	0.1366
TVA	TVA	1.2446	Confirmed LTF	1.2446
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	19.1365	Confirmed LTF	19.1365
CBM-S1	CBM-S1	0.3120	Confirmed LTF	0.3120
MEC	MEC	0.9327	Confirmed LTF	0.9327
LAGN	LAGN	1.5540	Confirmed LTF	1.5540
CBM-W1	CBM-W1	6.6875	Confirmed LTF	6.6875

13.5.5 Index 5

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
168832170	314203	6MACKEYS	DVP	314637	6EDENTON	DVP	1	Base Case	single	731.32	146.67	147.98	DC	9.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1331	80/20	2.1331
313719	3CHESTNUT	0.5165	80/20	0.5165
314582	3KELFORD	0.2333	80/20	0.2333
314589	3MURPHYS	0.0370	80/20	0.0370
314623	3WITAKRS	0.0940	80/20	0.0940
315126	1ROARAP2	0.5120	80/20	0.5120
315128	1ROARAP4	0.4886	80/20	0.4886
315131	1EDGECSMA (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315132	1EDGECSMB (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315136	1ROSEMG1	0.8655	80/20	0.8655
315137	1ROSEMS1	0.5367	80/20	0.5367
315138	1ROSEMG2	0.4057	80/20	0.4057
315139	1GASTONA	1.2468	80/20	1.2468
315141	1GASTONB	1.2468	80/20	1.2468
315292	1DOMTR78	2.6052	80/20	2.6052
315293	1DOMTR9	13.4746	80/20	13.4746
315294	1DOMTR10	16.5130	80/20	16.5130
315601	1CONETOESOL	0.8402	80/20	0.8402
315602	1HOLLOMANSOL	1.2190	80/20	1.2190

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315606	3AA2-053SOLA	0.6464	80/20	0.6464
315607	3AA1-063SOLA	0.4733	80/20	0.4733
315614	AA2-178 C	4.4673	80/20	4.4673
316020	AB2-059 C OP	0.7167	80/20	0.7167
316087	AB2-174 C	0.3340	80/20	0.3340
316140	AB2-099 C (Suspended)	0.3837	80/20	0.3837
920591	AA2-165 C	0.0693	80/20	0.0693
922922	AB1-081 C OP	0.6081	80/20	0.6081
923991	AB2-040 C O1	2.3232	80/20	2.3232
925121	AB2-169 C	1.6131	80/20	1.6131
925591	AC1-034 C	2.9425	80/20	2.9425
926070	AC1-086 C	8.8866	80/20	8.8866
926201	AC1-098 C	3.2283	80/20	3.2283
926211	AC1-099 C	1.0818	80/20	1.0818
927024	AC1-189 C	5.8874	80/20	5.8874
927145	AC1-208 C	4.1650	80/20	4.1650
932631	AC2-084 C	4.6021	80/20	4.6021
933991	AD1-023 C	25.2222	80/20	25.2222
934331	AD1-057 C O1	4.3394	80/20	4.3394
934521	AD1-076 C	124.5855	80/20	124.5855
936401	AD2-051 C O1	7.4492	80/20	7.4492
938221	AE1-035 C	0.3048	80/20	0.3048
940491	AE2-034 C	21.2365	80/20	21.2365
940571	AE2-044 C	1.9272	80/20	1.9272
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1250	80/20	0.1250
943171	AE2-346 C	0.9210	80/20	0.9210
944141	AF1-082	1.2389	80/20	1.2389
945711	AF1-236 C O1	232.4887	80/20	232.4887
957521	AF2-046 C	7.9381	80/20	7.9381
957531	AF2-047 C	50.4619	80/20	50.4619
957861	AF2-080 C	5.3471	80/20	5.3471
959511	AF2-242 C	9.7474	80/20	9.7474
961671	AG1-007 C	0.7149	80/20	0.7149
961681	AG1-008 C	7.9540	80/20	7.9540
961931	AG1-036 C	0.7739	80/20	0.7739
961941	AG1-037 C	0.3289	80/20	0.3289
962331	AG1-082 C	1.3157	80/20	1.3157
962341	AG1-083 C	1.3157	80/20	1.3157
962351	AG1-084 C	1.2792	80/20	1.2792
962361	AG1-085 C	1.2792	80/20	1.2792
962571	AG1-106 C	2.4713	80/20	2.4713
964491	AG1-312 C O1	18.8709	80/20	18.8709
964501	AG1-313 C O2	2.4271	80/20	2.4271
964801	AG1-343 C	1.8970	80/20	1.8970
965291	AG1-394 C	0.6046	80/20	0.6046
965631	AG1-431	134.5987	80/20	134.5987
965691	AG1-437 C O1	16.4358	80/20	16.4358
965701	AG1-438 C O1	16.4358	80/20	16.4358
965711	AG1-439 C O1	15.0720	80/20	15.0720
965741	AG1-442 O1	9.5876	80/20	9.5876
965751	AG1-443 O1	9.5876	80/20	9.5876

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965761	AG1-444 O1	8.0384	80/20	8.0384
966801	AG1-551 C	2.4639	80/20	2.4639
966811	AG1-552 C	0.8130	80/20	0.8130
966931	AG1-431A	101.1260	80/20	101.1260
WEC	WEC	0.1581	Confirmed LTF	0.1581
LGEE	LGEE	0.3223	Confirmed LTF	0.3223
CPL	CPL	1.7718	Confirmed LTF	1.7718
CBM-W2	CBM-W2	6.6931	Confirmed LTF	6.6931
NY	NY	0.1366	Confirmed LTF	0.1366
TVA	TVA	1.2446	Confirmed LTF	1.2446
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	19.1365	Confirmed LTF	19.1365
CBM-S1	CBM-S1	0.3120	Confirmed LTF	0.3120
MEC	MEC	0.9327	Confirmed LTF	0.9327
LAGN	LAGN	1.5540	Confirmed LTF	1.5540
CBM-W1	CBM-W1	6.6875	Confirmed LTF	6.6875

13.5.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
163841846	314554	3BTLEBRO	DVP	304223	3ROCKYMT115T	CPL	1	DVP_P7-1: LN 2058-2181	tower	164.0	325.75	326.37	DC	2.25

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1181	Adder	3.67
313719	3CHESTNUT	2.4261	50/50	2.4261
314541	3WATKINS	0.2172	Adder	0.26
314572	3EMPORIA	0.1704	Adder	0.2
314582	3KELFORD	0.3112	50/50	0.3112
314623	3WITAKRS	0.5240	50/50	0.5240
315126	1ROARAP2	0.8712	50/50	0.8712
315128	1ROARAP4	0.8314	50/50	0.8314
315131	1EDGECEMA (Deactivation : 22/04/2019)	12.5808	50/50	12.5808
315132	1EDGECEMB (Deactivation : 22/04/2019)	12.5808	50/50	12.5808
315136	1ROSEMG1	1.5086	50/50	1.5086
315137	1ROSEMS1	0.9355	50/50	0.9355
315138	1ROSEMG2	0.7070	50/50	0.7070
315139	1GASTONA	1.9383	50/50	1.9383
315141	1GASTONB	1.9383	50/50	1.9383
315293	1DOMTR9	2.0513	Adder	2.41
315294	1DOMTR10	2.5139	Adder	2.96
315601	1CONETOE2SOL	1.1895	50/50	1.1895
315606	3AA2-053SOLA	0.9246	50/50	0.9246
316020	AB2-059 C OP	4.4268	50/50	4.4268

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316088	AB2-174 E	2.8075	Adder	3.3
316097	AB2-100 E1	1.0834	Adder	1.27
316099	AB2-100 E2	1.0834	Adder	1.27
316103	AB2-015 C	2.5912	Adder	3.05
316104	AB2-015 E	2.1248	Adder	2.5
316129	AC1-054 C	2.5555	Adder	3.01
316140	AB2-099 C (Suspended)	0.2729	Adder	0.32
316141	AB2-099 E (Suspended)	0.1170	Adder	0.14
900672	V4-068 E	0.1280	Adder	0.15
917332	Z2-043 E	0.9284	50/50	0.9284
917342	Z2-044 E	1.4235	50/50	1.4235
917512	Z2-088 E OP1	7.0561	50/50	7.0561
918492	AA1-063AE OP	2.0088	Adder	2.36
918512	AA1-065 E OP	1.4796	Adder	1.74
918532	AA1-067 E	0.2544	Adder	0.3
919692	AA2-053 E OP	2.4062	50/50	2.4062
919702	AA2-057 E OP	7.2586	50/50	7.2586
920042	AA2-088 E OP	4.1496	Adder	4.88
920591	AA2-165 C	0.3257	50/50	0.3257
920592	AA2-165 E	0.9976	50/50	0.9976
922922	AB1-081 C OP	3.7561	50/50	3.7561
922923	AB1-081 E OP	10.2031	50/50	10.2031
923262	AB1-132 C OP (Suspended)	9.3820	50/50	9.3820
923263	AB1-132 E OP (Suspended)	4.0208	50/50	4.0208
923573	AB1-173 E OP	0.4862	Adder	0.57
923991	AB2-040 C O1	3.3959	Adder	4.0
923992	AB2-040 E O1	2.7785	Adder	3.27
924152	AB2-059 E OP	14.4544	50/50	14.4544
925122	AB2-169 E	1.8344	Adder	2.16
925591	AC1-034 C	18.1743	50/50	18.1743
925592	AC1-034 E	13.7104	50/50	13.7104
925785	AC1-054 E	1.1772	Adder	1.38
926070	AC1-086 C	13.8161	50/50	13.8161
926071	AC1-086 E	6.2881	50/50	6.2881
926201	AC1-098 C	8.8191	50/50	8.8191
926202	AC1-098 E	5.2539	50/50	5.2539
926211	AC1-099 C	2.9553	50/50	2.9553
926212	AC1-099 E	1.7357	50/50	1.7357
927024	AC1-189 C	6.2804	50/50	6.2804
927025	AC1-189 E	3.1284	50/50	3.1284
927145	AC1-208 C	14.0422	50/50	14.0422
927146	AC1-208 E	6.2100	50/50	6.2100
932631	AC2-084 C	12.5719	50/50	12.5719
932632	AC2-084 E	6.1921	50/50	6.1921
933991	AD1-023 C	4.0327	Adder	4.74
933992	AD1-023 E	2.1954	Adder	2.58
934331	AD1-057 C O1	10.5448	50/50	10.5448
934332	AD1-057 E O1	5.6251	50/50	5.6251
936401	AD2-051 C O1	3.2781	Adder	3.86
936402	AD2-051 E O1	1.4076	Adder	1.66
938222	AE1-035 E	0.4069	Adder	0.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940571	AE2-044 C	11.9036	50/50	11.9036
940572	AE2-044 E	5.1016	50/50	5.1016
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2794	Adder	0.33
942471	AE2-260 C O1	5.1280	Adder	6.03
942472	AE2-260 E O1	7.2735	Adder	8.56
943171	AE2-346 C	0.6550	Adder	0.77
943172	AE2-346 E	0.2807	Adder	0.33
944141	AF1-082	7.6523	50/50	7.6523
946281	AF1-292 C	0.5743	Adder	0.68
946282	AF1-292 E	0.3872	Adder	0.46
957521	AF2-046 C	7.3234	Adder	8.62
957522	AF2-046 E	3.6837	Adder	4.33
957861	AF2-080 C	5.7041	50/50	5.7041
957862	AF2-080 E	2.5286	50/50	2.5286
959511	AF2-242 C	2.4228	Adder	2.85
959512	AF2-242 E	1.8844	Adder	2.22
960081	AF2-299 C	0.9680	Adder	1.14
960082	AF2-299 E	0.6453	Adder	0.76
961091	AF2-400 C	0.1399	Adder	0.16
961092	AF2-400 E	0.2296	Adder	0.27
961671	AG1-007 C	1.2437	50/50	1.2437
961672	AG1-007 E	0.6945	50/50	0.6945
961681	AG1-008 C	3.8892	Adder	8.63
961682	AG1-008 E	1.9446	Adder	4.32
961931	AG1-036 C	0.3255	Adder	0.72
961932	AG1-036 E	0.2170	Adder	0.48
961941	AG1-037 C	0.1240	Adder	0.28
961942	AG1-037 E	0.0826	Adder	0.18
962331	AG1-082 C	0.4959	Adder	1.1
962332	AG1-082 E	0.3306	Adder	0.73
962341	AG1-083 C	0.4959	Adder	1.1
962342	AG1-083 E	0.3306	Adder	0.73
962351	AG1-084 C	0.4442	Adder	0.99
962352	AG1-084 E	0.2961	Adder	0.66
962361	AG1-085 C	0.4442	Adder	0.99
962362	AG1-085 E	0.2961	Adder	0.66
962571	AG1-106 C	3.8421	50/50	3.8421
962572	AG1-106 E	1.7424	50/50	1.7424
964491	AG1-312 C O1	3.5814	Adder	7.95
964492	AG1-312 E O1	0.8953	Adder	1.99
964501	AG1-313 C O2	2.8508	50/50	2.8508
964502	AG1-313 E O2	1.9005	50/50	1.9005
964801	AG1-343 C	1.2896	Adder	2.86
964802	AG1-343 E	1.0133	Adder	2.25
965291	AG1-394 C	0.4384	Adder	0.97
965292	AG1-394 E	0.2923	Adder	0.65
965691	AG1-437 C O1	1.7375	Adder	3.86
965692	AG1-437 E O1	1.1583	Adder	2.57
965701	AG1-438 C O1	1.7375	Adder	3.86
965702	AG1-438 E O1	1.1583	Adder	2.57
965711	AG1-439 C O1	21.3390	50/50	21.3390

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965712	AG1-439 E O1	14.2260	50/50	14.2260
965741	AG1-442 O1	1.0135	Adder	2.25
965751	AG1-443 O1	1.0135	Adder	2.25
965761	AG1-444 O1	11.3808	50/50	11.3808
966621	AG1-532 C	0.2770	Adder	0.61
966622	AG1-532 E	0.1847	Adder	0.41
966751	AG1-546 C	3.1668	Adder	7.03
966752	AG1-546 E	1.6992	Adder	3.77
966801	AG1-551 C	0.4089	Adder	0.91
966802	AG1-551 E	0.1753	Adder	0.39
966811	AG1-552 C	1.3832	50/50	1.3832
966812	AG1-552 E	0.5928	50/50	0.5928
G-007A	G-007A	0.4867	Confirmed LTF	0.4867
VFT	VFT	1.2964	Confirmed LTF	1.2964
CALDERWOOD	CALDERWOOD	0.7087	Confirmed LTF	0.7087
PRAIRIE	PRAIRIE	2.4719	Confirmed LTF	2.4719
CHEOAH	CHEOAH	0.7262	Confirmed LTF	0.7262
CBM-N	CBM-N	0.2340	Confirmed LTF	0.2340
COTTONWOOD	COTTONWOOD	2.6313	Confirmed LTF	2.6313
HAMLET	HAMLET	1.5263	Confirmed LTF	1.5263
GIBSON	GIBSON	0.4390	Confirmed LTF	0.4390
BLUEG	BLUEG	1.3558	Confirmed LTF	1.3558
TRIMBLE	TRIMBLE	0.4307	Confirmed LTF	0.4307
CATAWBA	CATAWBA	0.7581	Confirmed LTF	0.7581

13.5.7 Index 7

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
173907537	314561	6CAROLNA	DVP	314583	6LAKEVIEW	DVP	1	DVP_P4-2: 246T247	breaker	459.0	168.29	170.02	DC	7.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	4.8331	50/50	4.8331
314539	3UNCAMP	4.0999	50/50	4.0999
314541	3WATKINS	0.5680	50/50	0.5680
314582	3KELFORD	0.4846	50/50	0.4846
314589	3MURPHYS	0.1126	50/50	0.1126
314594	6PLYMOTH	0.0967	50/50	0.0967
315115	1S HAMPT1	1.2202	50/50	1.2202
315126	1ROARAP2	2.3907	50/50	2.3907
315128	1ROARAP4	2.2813	50/50	2.2813
315164	1KERR 7	0.6951	50/50	0.6951
315292	1DOMTR78	1.3460	50/50	1.3460
315293	1DOMTR9	6.9617	50/50	6.9617
315294	1DOMTR10	8.5315	50/50	8.5315
315602	1HOLLOMANSOL	2.3248	50/50	2.3248

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315606	3AA2-053SOLA	2.5398	50/50	2.5398
315607	3AA1-063SOLA	2.1103	50/50	2.1103
315608	3AA2-088SOLA	1.1705	50/50	1.1705
315611	6Z1-036WIND	0.7024	50/50	0.7024
315614	AA2-178 C	1.3989	50/50	1.3989
316088	AB2-174 E	2.6618	Adder	3.13
316103	AB2-015 C	6.5815	50/50	6.5815
316104	AB2-015 E	5.3968	50/50	5.3968
316129	AC1-054 C	8.5395	50/50	8.5395
316140	AB2-099 C (Suspended)	0.8745	50/50	0.8745
316141	AB2-099 E (Suspended)	0.3748	50/50	0.3748
900672	V4-068 E	0.3912	50/50	0.3912
901082	W1-029 E	20.7208	Adder	24.38
916042	Z1-036 E (Suspended)	29.8274	50/50	29.8274
917332	Z2-043 E	1.4454	50/50	1.4454
918492	AA1-063AE OP	6.3070	50/50	6.3070
918512	AA1-065 E OP	6.5981	50/50	6.5981
918532	AA1-067 E	0.5532	50/50	0.5532
919692	AA2-053 E OP	6.6096	50/50	6.6096
919702	AA2-057 E OP	1.4432	Adder	1.7
920042	AA2-088 E OP	12.1049	50/50	12.1049
920592	AA2-165 E	0.1984	Adder	0.23
920692	AA2-178 E	3.8002	50/50	3.8002
923573	AB1-173 E OP	0.7537	50/50	0.7537
923991	AB2-040 C O1	5.2637	50/50	5.2637
923992	AB2-040 E O1	4.3067	50/50	4.3067
925121	AB2-169 C	0.9498	50/50	0.9498
925122	AB2-169 E	5.4029	50/50	5.4029
925785	AC1-054 E	3.9339	50/50	3.9339
926201	AC1-098 C	6.2886	50/50	6.2886
926202	AC1-098 E	3.7464	50/50	3.7464
926211	AC1-099 C	2.1074	50/50	2.1074
926212	AC1-099 E	1.2377	50/50	1.2377
927145	AC1-208 C	8.8972	50/50	8.8972
927146	AC1-208 E	3.9347	50/50	3.9347
932631	AC2-084 C	8.9646	50/50	8.9646
932632	AC2-084 E	4.4154	50/50	4.4154
933991	AD1-023 C	16.1740	50/50	16.1740
933992	AD1-023 E	8.8052	50/50	8.8052
934521	AD1-076 C	59.1788	50/50	59.1788
934522	AD1-076 E	30.1338	50/50	30.1338
936361	AD2-046 C O1	4.4861	Adder	5.28
936362	AD2-046 E O1	2.0630	Adder	2.43
936401	AD2-051 C O1	14.9052	50/50	14.9052
936402	AD2-051 E O1	6.4001	50/50	6.4001
938221	AE1-035 C	0.5813	50/50	0.5813
938222	AE1-035 E	1.8145	50/50	1.8145
938771	AE1-103 C	1.7987	Adder	2.12
938772	AE1-103 E	2.4840	Adder	2.92
939181	AE1-148 C	4.3408	Adder	5.11
939182	AE1-148 E	2.8938	Adder	3.4
940491	AE2-034 C	6.6503	50/50	6.6503

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940492	AE2-034 E	2.8501	50/50	2.8501
940542	AE2-040 BAT	1.4628	Merchant Transmission	1.4628
940661	AE2-053 O1	1.6077	Adder	1.89
941501	AE2-147 C	7.1451	Adder	8.41
941502	AE2-147 E	4.7634	Adder	5.6
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2660	50/50	0.2660
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.9077	50/50	0.9077
943171	AE2-346 C	2.0988	50/50	2.0988
943172	AE2-346 E	0.8995	50/50	0.8995
944871	AF1-152 C	2.3817	Adder	2.8
944872	AF1-152 E	1.5878	Adder	1.87
945711	AF1-236 C O1	72.8047	50/50	72.8047
945712	AF1-236 E O1	44.9686	50/50	44.9686
946012	AF1-266 BAT	7.7681	Merchant Transmission	7.7681
957521	AF2-046 C	22.5977	50/50	22.5977
957522	AF2-046 E	11.3668	50/50	11.3668
957531	AF2-047 C	15.8023	50/50	15.8023
957532	AF2-047 E	7.9487	50/50	7.9487
957821	AF2-076 C	8.2473	50/50	8.2473
957822	AF2-076 E	5.4982	50/50	5.4982
959511	AF2-242 C	6.4575	50/50	6.4575
959512	AF2-242 E	5.0225	50/50	5.0225
961091	AF2-400 C	0.3554	50/50	0.3554
961092	AF2-400 E	0.5831	50/50	0.5831
961681	AG1-008 C	22.6430	50/50	22.6430
961682	AG1-008 E	11.3215	50/50	11.3215
961931	AG1-036 C	1.9349	50/50	1.9349
961932	AG1-036 E	1.2900	50/50	1.2900
961941	AG1-037 C	0.7496	50/50	0.7496
961942	AG1-037 E	0.4997	50/50	0.4997
962331	AG1-082 C	2.9983	50/50	2.9983
962332	AG1-082 E	1.9989	50/50	1.9989
962341	AG1-083 C	2.9983	50/50	2.9983
962342	AG1-083 E	1.9989	50/50	1.9989
962351	AG1-084 C	2.7232	50/50	2.7232
962352	AG1-084 E	1.8155	50/50	1.8155
962361	AG1-085 C	2.7232	50/50	2.7232
962362	AG1-085 E	1.8155	50/50	1.8155
964491	AG1-312 C O1	29.7830	50/50	29.7830
964492	AG1-312 E O1	7.4458	50/50	7.4458
964501	AG1-313 C O2	7.8417	50/50	7.8417
964502	AG1-313 E O2	5.2278	50/50	5.2278
964801	AG1-343 C	7.2341	50/50	7.2341
964802	AG1-343 E	5.6840	50/50	5.6840
965291	AG1-394 C	2.4446	50/50	2.4446
965292	AG1-394 E	1.6298	50/50	1.6298
965631	AG1-431	42.1501	50/50	42.1501
965691	AG1-437 C O1	13.6146	50/50	13.6146
965692	AG1-437 E O1	9.0764	50/50	9.0764
965701	AG1-438 C O1	13.6146	50/50	13.6146
965702	AG1-438 E O1	9.0764	50/50	9.0764

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965721	AG1-440 C	6.1520	50/50	6.1520
965722	AG1-440 E	4.1013	50/50	4.1013
965731	AG1-441 C	6.1520	50/50	6.1520
965732	AG1-441 E	4.1013	50/50	4.1013
965741	AG1-442 O1	7.9418	50/50	7.9418
965751	AG1-443 O1	7.9418	50/50	7.9418
965771	AG1-445	3.5545	50/50	3.5545
965781	AG1-446	3.5545	50/50	3.5545
966491	AG1-518 O2	2.1038	Adder	4.67
966751	AG1-546 C	19.8588	50/50	19.8588
966752	AG1-546 E	10.6557	50/50	10.6557
966801	AG1-551 C	1.8732	50/50	1.8732
966802	AG1-551 E	0.8028	50/50	0.8028
966811	AG1-552 C	3.7958	50/50	3.7958
966812	AG1-552 E	1.6268	50/50	1.6268
966931	AG1-431A	31.6680	50/50	31.6680
WEC	WEC	0.0444	Confirmed LTF	0.0444
LGEE	LGEE	0.0917	Confirmed LTF	0.0917
CPL	CPL	0.5521	Confirmed LTF	0.5521
CBM-W2	CBM-W2	1.8816	Confirmed LTF	1.8816
NY	NY	0.0536	Confirmed LTF	0.0536
TVA	TVA	0.3500	Confirmed LTF	0.3500
O-066	O-066	0.7672	Confirmed LTF	0.7672
SIGE	SIGE	0.0281	Confirmed LTF	0.0281
CBM-S2	CBM-S2	5.5019	Confirmed LTF	5.5019
CBM-S1	CBM-S1	0.0878	Confirmed LTF	0.0878
G-007	G-007	0.1208	Confirmed LTF	0.1208
MEC	MEC	0.2622	Confirmed LTF	0.2622
LAGN	LAGN	0.4358	Confirmed LTF	0.4358
CBM-W1	CBM-W1	1.8787	Confirmed LTF	1.8787

13.5.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
173907516	314568	3EARLEYS	DVP	314569	6EARLEYS	DVP	2	DVP_P4-2: 201262	breaker	208.0	200.79	202.48	DC	3.5

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.2094	Adder	3.78
313719	3CHESTNUT	0.8253	50/50	0.8253
314539	3UNCAMP	3.5388	50/50	3.5388
314541	3WATKINS	0.5104	50/50	0.5104
314582	3KELFORD	0.9697	50/50	0.9697
314589	3MURPHYS	0.1579	50/50	0.1579
315115	1S HAMPT1	1.1016	50/50	1.1016
315126	1ROARAP2	1.0429	50/50	1.0429

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315128	1ROARAP4	0.9952	50/50	0.9952
315293	1DOMTR9	-2.5601	Adder	-3.01
315294	1DOMTR10	-3.1374	Adder	-3.69
315606	3AA2-053SOLA	1.8109	50/50	1.8109
315607	3AA1-063SOLA	1.2516	50/50	1.2516
315608	3AA2-088SOLA	1.1053	50/50	1.1053
316088	AB2-174 E	2.7675	Adder	3.26
316103	AB2-015 C	5.8275	50/50	5.8275
316104	AB2-015 E	4.7785	50/50	4.7785
316129	AC1-054 C	3.3411	Adder	3.93
316140	AB2-099 C (Suspended)	1.7636	50/50	1.7636
316141	AB2-099 E (Suspended)	0.7558	50/50	0.7558
900672	V4-068 E	0.5483	50/50	0.5483
917332	Z2-043 E	2.8924	50/50	2.8924
917342	Z2-044 E	0.2516	Adder	0.3
918492	AA1-063AE OP	3.7406	50/50	3.7406
919692	AA2-053 E OP	4.7129	50/50	4.7129
919702	AA2-057 E OP	2.4691	50/50	2.4691
920042	AA2-088 E OP	11.4303	50/50	11.4303
920591	AA2-165 C	0.1108	50/50	0.1108
920592	AA2-165 E	0.3394	50/50	0.3394
923573	AB1-173 E OP	0.5005	Adder	0.59
923991	AB2-040 C O1	3.4954	Adder	4.11
923992	AB2-040 E O1	2.8599	Adder	3.36
925785	AC1-054 E	1.5392	Adder	1.81
926201	AC1-098 C	9.3737	50/50	9.3737
926202	AC1-098 E	5.5843	50/50	5.5843
926211	AC1-099 C	3.1412	50/50	3.1412
926212	AC1-099 E	1.8448	50/50	1.8448
927145	AC1-208 C	9.0019	50/50	9.0019
927146	AC1-208 E	3.9810	50/50	3.9810
932631	AC2-084 C	13.3625	50/50	13.3625
932632	AC2-084 E	6.5815	50/50	6.5815
938771	AE1-103 C	1.4933	Adder	1.76
938772	AE1-103 E	2.0622	Adder	2.43
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.5823	50/50	0.5823
941542	AE2-151 E (Withdrawn : 01/08/2021)	1.9872	50/50	1.9872
943171	AE2-346 C	4.2328	50/50	4.2328
943172	AE2-346 E	1.8140	50/50	1.8140
957521	AF2-046 C	34.5498	50/50	34.5498
957522	AF2-046 E	17.3787	50/50	17.3787
961091	AF2-400 C	0.3147	50/50	0.3147
961092	AF2-400 E	0.5163	50/50	0.5163
961681	AG1-008 C	34.6190	50/50	34.6190
961682	AG1-008 E	17.3095	50/50	17.3095
961931	AG1-036 C	3.4830	50/50	3.4830
961932	AG1-036 E	2.3220	50/50	2.3220
961941	AG1-037 C	1.5117	50/50	1.5117
961942	AG1-037 E	1.0078	50/50	1.0078
962331	AG1-082 C	6.0468	50/50	6.0468
962332	AG1-082 E	4.0312	50/50	4.0312

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962341	AG1-083 C	6.0468	50/50	6.0468
962342	AG1-083 E	4.0312	50/50	4.0312
962351	AG1-084 C	5.9615	50/50	5.9615
962352	AG1-084 E	3.9743	50/50	3.9743
962361	AG1-085 C	5.9615	50/50	5.9615
962362	AG1-085 E	3.9743	50/50	3.9743
964493	AG1-312 BAT	8.3202	50/50	8.3202
964501	AG1-313 C O2	8.5502	50/50	8.5502
964502	AG1-313 E O2	5.7001	50/50	5.7001
964801	AG1-343 C	7.4690	50/50	7.4690
964802	AG1-343 E	5.8685	50/50	5.8685
965291	AG1-394 C	2.3208	50/50	2.3208
965292	AG1-394 E	1.5472	50/50	1.5472
965742	AG1-442 BAT	3.5039	50/50	3.5039
965752	AG1-443 BAT	3.5039	50/50	3.5039
966751	AG1-546 C	4.0842	Adder	9.07
966752	AG1-546 E	2.1915	Adder	4.86
966811	AG1-552 C	1.6559	50/50	1.6559
966812	AG1-552 E	0.7097	50/50	0.7097
WEC	WEC	0.0173	Confirmed LTF	0.0173
LGEE	LGEE	0.0371	Confirmed LTF	0.0371
CPL	CPL	0.1440	Confirmed LTF	0.1440
CBM-W2	CBM-W2	0.7526	Confirmed LTF	0.7526
NY	NY	0.0453	Confirmed LTF	0.0453
TVA	TVA	0.1442	Confirmed LTF	0.1442
O-066	O-066	0.6192	Confirmed LTF	0.6192
SIGE	SIGE	0.0162	Confirmed LTF	0.0162
CBM-S2	CBM-S2	2.0254	Confirmed LTF	2.0254
CBM-S1	CBM-S1	0.0361	Confirmed LTF	0.0361
G-007	G-007	0.0976	Confirmed LTF	0.0976
MEC	MEC	0.1033	Confirmed LTF	0.1033
LAGN	LAGN	0.1750	Confirmed LTF	0.1750
CBM-W1	CBM-W1	0.7010	Confirmed LTF	0.7010

13.5.9 Index 9

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174479843	314568	3EARLEYS	DVP	314569	6EARLEYS	DVP	1	DVP_P4-2: 201462	breaker	231.7	157.52	158.18	DC	2.89

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.7834	50/50	0.7834
314539	3UNCAMP	2.8283	Adder	3.33
314541	3WATKINS	0.4795	50/50	0.4795
314582	3KELFORD	0.9680	50/50	0.9680
314589	3MURPHYS	0.1541	50/50	0.1541

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315115	1S HAMPT1	1.0347	50/50	1.0347
315126	1ROARAP2	0.8178	50/50	0.8178
315128	1ROARAP4	0.7804	50/50	0.7804
315606	3AA2-053SOLA	1.6139	50/50	1.6139
315607	3AA1-063SOLA	1.0758	50/50	1.0758
315608	3AA2-088SOLA	1.0371	50/50	1.0371
316103	AB2-015 C	5.4760	50/50	5.4760
316104	AB2-015 E	4.4903	50/50	4.4903
316140	AB2-099 C (Suspended)	1.7646	50/50	1.7646
316141	AB2-099 E (Suspended)	0.7563	50/50	0.7563
900672	V4-068 E	0.5353	50/50	0.5353
917332	Z2-043 E	2.8874	50/50	2.8874
917342	Z2-044 E	0.2412	Adder	0.28
918492	AA1-063AE OP	3.2153	50/50	3.2153
919692	AA2-053 E OP	4.2001	50/50	4.2001
919702	AA2-057 E OP	2.3438	50/50	2.3438
920042	AA2-088 E OP	10.7254	50/50	10.7254
920591	AA2-165 C	0.1052	50/50	0.1052
920592	AA2-165 E	0.3221	50/50	0.3221
926201	AC1-098 C	9.1105	50/50	9.1105
926202	AC1-098 E	5.4275	50/50	5.4275
926211	AC1-099 C	3.0530	50/50	3.0530
926212	AC1-099 E	1.7930	50/50	1.7930
927145	AC1-208 C	8.3588	50/50	8.3588
927146	AC1-208 E	3.6966	50/50	3.6966
932631	AC2-084 C	12.9873	50/50	12.9873
932632	AC2-084 E	6.3967	50/50	6.3967
938771	AE1-103 C	1.4055	Adder	1.65
938772	AE1-103 E	1.9409	Adder	2.28
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.5852	50/50	0.5852
941542	AE2-151 E (Withdrawn : 01/08/2021)	1.9969	50/50	1.9969
943171	AE2-346 C	4.2350	50/50	4.2350
943172	AE2-346 E	1.8150	50/50	1.8150
957521	AF2-046 C	33.9579	50/50	33.9579
957522	AF2-046 E	17.0811	50/50	17.0811
961091	AF2-400 C	0.2957	50/50	0.2957
961092	AF2-400 E	0.4852	50/50	0.4852
961681	AG1-008 C	34.0260	50/50	34.0260
961682	AG1-008 E	17.0130	50/50	17.0130
961931	AG1-036 C	3.4616	50/50	3.4616
961932	AG1-036 E	2.3077	50/50	2.3077
961941	AG1-037 C	1.5125	50/50	1.5125
961942	AG1-037 E	1.0083	50/50	1.0083
962331	AG1-082 C	6.0500	50/50	6.0500
962332	AG1-082 E	4.0334	50/50	4.0334
962341	AG1-083 C	6.0500	50/50	6.0500
962342	AG1-083 E	4.0334	50/50	4.0334
962351	AG1-084 C	5.9907	50/50	5.9907
962352	AG1-084 E	3.9938	50/50	3.9938
962361	AG1-085 C	5.9907	50/50	5.9907
962362	AG1-085 E	3.9938	50/50	3.9938

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964493	AG1-312 BAT	7.1393	50/50	7.1393
964501	AG1-313 C O2	8.1185	50/50	8.1185
964502	AG1-313 E O2	5.4124	50/50	5.4124
964801	AG1-343 C	7.0784	50/50	7.0784
964802	AG1-343 E	5.5616	50/50	5.5616
965291	AG1-394 C	2.1774	50/50	2.1774
965292	AG1-394 E	1.4516	50/50	1.4516
965742	AG1-442 BAT	1.5307	Merchant Transmission	1.5307
965752	AG1-443 BAT	1.5307	Merchant Transmission	1.5307
966751	AG1-546 C	3.1972	Adder	7.1
966752	AG1-546 E	1.7155	Adder	3.81
966811	AG1-552 C	1.2984	50/50	1.2984
966812	AG1-552 E	0.5565	50/50	0.5565
WEC	WEC	0.0438	Confirmed LTF	0.0438
LGEE	LGEE	0.0898	Confirmed LTF	0.0898
CPL	CPL	0.4545	Confirmed LTF	0.4545
CBM-W2	CBM-W2	1.8458	Confirmed LTF	1.8458
NY	NY	0.0520	Confirmed LTF	0.0520
TVA	TVA	0.3444	Confirmed LTF	0.3444
O-066	O-066	0.7470	Confirmed LTF	0.7470
SIGE	SIGE	0.0276	Confirmed LTF	0.0276
CBM-S2	CBM-S2	5.1574	Confirmed LTF	5.1574
CBM-S1	CBM-S1	0.0863	Confirmed LTF	0.0863
G-007	G-007	0.1176	Confirmed LTF	0.1176
MEC	MEC	0.2574	Confirmed LTF	0.2574
LAGN	LAGN	0.4270	Confirmed LTF	0.4270
CBM-W1	CBM-W1	1.8366	Confirmed LTF	1.8366

13.5.10 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
169038675	314569	GEARLEYS	DVP	314575	6NUCO TP	DVP	1	DVP_P1-2: LN 2092	single	571.52	238.21	240.47	DC	12.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	5.3764	80/20	5.3764
313527	AB2-043 C	0.1797	80/20	0.1797
313719	3CHESTNUT	1.2166	80/20	1.2166
314572	3EMPORIA	0.2919	80/20	0.2919
314582	3KELFORD	0.6058	80/20	0.6058
314589	3MURPHYS	0.0945	80/20	0.0945
314623	3WITAKRS	0.2162	80/20	0.2162
314704	3LAWRENC	0.1658	80/20	0.1658
315115	1S HAMPT1	0.4948	80/20	0.4948
315126	1ROARAP2	1.2875	80/20	1.2875
315128	1ROARAP4	1.2286	80/20	1.2286

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315136	1ROSEMG1	2.1445	80/20	2.1445
315137	1ROSEMS1	1.3298	80/20	1.3298
315138	1ROSEMG2	1.0051	80/20	1.0051
315139	1GASTONA	3.1370	80/20	3.1370
315141	1GASTONB	3.1370	80/20	3.1370
315158	1KERR 1	0.1949	80/20	0.1949
315159	1KERR 2	0.5458	80/20	0.5458
315160	1KERR 3	0.5458	80/20	0.5458
315161	1KERR 4	0.5458	80/20	0.5458
315162	1KERR 5	0.5458	80/20	0.5458
315163	1KERR 6	0.5458	80/20	0.5458
315164	1KERR 7	0.5458	80/20	0.5458
315292	1DOMTR78	2.6257	80/20	2.6257
315293	1DOMTR9	13.5803	80/20	13.5803
315294	1DOMTR10	16.6425	80/20	16.6425
315601	1CONETOE2SOL	1.7196	80/20	1.7196
315602	1HOLLOMANSOL	3.2518	80/20	3.2518
315606	3AA2-053SOLA	1.6490	80/20	1.6490
315607	3AA1-063SOLA	1.1822	80/20	1.1822
315608	3AA2-088SOLA	0.6872	80/20	0.6872
315611	6Z1-036WIND	2.1843	80/20	2.1843
315614	AA2-178 C	3.1366	80/20	3.1366
316020	AB2-059 C OP	1.5978	80/20	1.5978
316087	AB2-174 C	0.8423	80/20	0.8423
316096	AB2-100 C1	0.5758	80/20	0.5758
316098	AB2-100 C2	0.5758	80/20	0.5758
316129	AC1-054 C	5.2403	80/20	5.2403
316131	AB2-060 C	0.5087	80/20	0.5087
316140	AB2-099 C (Suspended)	1.0074	80/20	1.0074
920591	AA2-165 C	0.1633	80/20	0.1633
922922	AB1-081 C OP	1.3557	80/20	1.3557
923991	AB2-040 C O1	5.8555	80/20	5.8555
924301	AB2-077 C O1 (Suspended)	0.7260	80/20	0.7260
924311	AB2-078 C O1 (Suspended)	0.7260	80/20	0.7260
924321	AB2-079 C O1 (Suspended)	0.7260	80/20	0.7260
925121	AB2-169 C	1.8885	80/20	1.8885
925591	AC1-034 C	6.5600	80/20	6.5600
926070	AC1-086 C	22.3600	80/20	22.3600
926201	AC1-098 C	8.0404	80/20	8.0404
926211	AC1-099 C	2.6944	80/20	2.6944
927024	AC1-189 C	11.8698	80/20	11.8698
927145	AC1-208 C	10.1498	80/20	10.1498
932631	AC2-084 C	11.4618	80/20	11.4618
933991	AD1-023 C	28.1849	80/20	28.1849
934331	AD1-057 C O1	10.1494	80/20	10.1494
934521	AD1-076 C	113.8581	80/20	113.8581

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936361	AD2-046 C O1	4.3133	80/20	4.3133
936401	AD2-051 C O1	19.8559	80/20	19.8559
936485	AD2-063 C	4.9383	80/20	4.9383
938221	AE1-035 C	0.8131	80/20	0.8131
939181	AE1-148 C	4.2098	80/20	4.2098
940481	AE2-033 C	4.4571	80/20	4.4571
940491	AE2-034 C	14.9108	80/20	14.9108
940571	AE2-044 C	4.2966	80/20	4.2966
940661	AE2-053 O1	1.5592	80/20	1.5592
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.3297	80/20	0.3297
942131	AE2-225 C	-1.0743	Adder	-1.26
942171	AE2-229 C	-0.8057	Adder	-0.95
942451	AE2-258	0.8499	80/20	0.8499
942471	AE2-260 C O1	8.2667	80/20	8.2667
943171	AE2-346 C	2.4178	80/20	2.4178
943611	AF1-032 C	-0.8773	Adder	-1.03
943911	AF1-059	8.1959	80/20	8.1959
944141	AF1-082	2.7621	80/20	2.7621
945711	AF1-236 C O1	163.2382	80/20	163.2382
946281	AF1-292 C	0.9810	80/20	0.9810
957491	AF2-043 C	-1.0743	Adder	-1.26
957521	AF2-046 C	20.4271	80/20	20.4271
957531	AF2-047 C	35.4310	80/20	35.4310
957861	AF2-080 C	10.7806	80/20	10.7806
959511	AF2-242 C	13.0307	80/20	13.0307
960081	AF2-299 C	1.6533	80/20	1.6533
961671	AG1-007 C	1.4833	80/20	1.4833
961681	AG1-008 C	20.4680	80/20	20.4680
961931	AG1-036 C	2.0158	80/20	2.0158
961941	AG1-037 C	0.8635	80/20	0.8635
962271	AG1-075 C O2	4.6675	80/20	4.6675
962331	AG1-082 C	3.4540	80/20	3.4540
962341	AG1-083 C	3.4540	80/20	3.4540
962351	AG1-084 C	3.3758	80/20	3.3758
962361	AG1-085 C	3.3758	80/20	3.3758
962491	AG1-098 C O2	4.3132	80/20	4.3132
962571	AG1-106 C	6.2181	80/20	6.2181
963301	AG1-179 C	3.0738	80/20	3.0738
963311	AG1-180	1.4976	80/20	1.4976
964491	AG1-312 C O1	42.7392	80/20	42.7392
964501	AG1-313 C O2	6.2746	80/20	6.2746
964801	AG1-343 C	4.7135	80/20	4.7135
964931	AG1-357 C O2	6.6084	80/20	6.6084
965291	AG1-394 C	1.4894	80/20	1.4894
965451	AG1-413 C O2	3.3660	80/20	3.3660
965591	AG1-427 C	3.9944	80/20	3.9944
965601	AG1-428 C O2	2.5661	80/20	2.5661
965631	AG1-431	94.5063	80/20	94.5063
965691	AG1-437 C O1	22.1316	80/20	22.1316
965701	AG1-438 C O1	22.1316	80/20	22.1316
965711	AG1-439 C O1	30.8475	80/20	30.8475

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965721	AG1-440 C	4.2890	80/20	4.2890
965731	AG1-441 C	4.2890	80/20	4.2890
965741	AG1-442 O1	12.9101	80/20	12.9101
965751	AG1-443 O1	12.9101	80/20	12.9101
965761	AG1-444 O1	16.4520	80/20	16.4520
965771	AG1-445	2.4781	80/20	2.4781
965781	AG1-446	2.4781	80/20	2.4781
966621	AG1-532 C	0.8928	80/20	0.8928
966751	AG1-546 C	11.9536	80/20	11.9536
966801	AG1-551 C	3.8374	80/20	3.8374
966811	AG1-552 C	2.0442	80/20	2.0442
966931	AG1-431A	71.0040	80/20	71.0040
WEC	WEC	0.3330	Confirmed LTF	0.3330
LGEE	LGEE	0.6786	Confirmed LTF	0.6786
CPL	CPL	3.7381	Confirmed LTF	3.7381
CBM-W2	CBM-W2	14.1299	Confirmed LTF	14.1299
NY	NY	0.3019	Confirmed LTF	0.3019
TVA	TVA	2.6320	Confirmed LTF	2.6320
SIGE	SIGE	0.1896	Confirmed LTF	0.1896
CBM-S2	CBM-S2	40.4863	Confirmed LTF	40.4863
CBM-S1	CBM-S1	0.6593	Confirmed LTF	0.6593
MEC	MEC	1.9656	Confirmed LTF	1.9656
LAGN	LAGN	3.2847	Confirmed LTF	3.2847
AA2-074	AA2-074	2.4687	LTF	2.4687
CBM-W1	CBM-W1	14.0621	Confirmed LTF	14.0621

13.5.11 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
174305983	314569	GEARLEYS	DVP	313857	6WINDSORDP	DVP	1	DVP_P4-2: 246T247	breaker	699.0	102.15	103.23	DC	7.55

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.5985	Adder	3.06
314539	3UNCAMP	2.0846	Adder	2.45
314541	3WATKINS	0.2756	Adder	0.32
314572	3EMPORIA	0.1421	Adder	0.17
314582	3KELFORD	0.4128	50/50	0.4128
314589	3MURPHYS	0.0772	50/50	0.0772
314594	6PLYMOTH	0.0702	50/50	0.0702
315602	1HOLLOMANSOL	2.6086	50/50	2.6086
315606	3AA2-053SOLA	1.0308	50/50	1.0308
315608	3AA2-088SOLA	0.6272	50/50	0.6272
315614	AA2-178 C	1.0318	50/50	1.0318
316088	AB2-174 E	2.3405	Adder	2.75
316097	AB2-100 E1	0.8976	Adder	1.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316099	AB2-100 E2	0.8976	Adder	1.06
316103	AB2-015 C	3.2504	Adder	3.82
316104	AB2-015 E	2.6653	Adder	3.14
316129	AC1-054 C	2.1802	Adder	2.56
316140	AB2-099 C (Suspended)	0.7823	50/50	0.7823
316141	AB2-099 E (Suspended)	0.3353	50/50	0.3353
900672	V4-068 E	0.2682	50/50	0.2682
901082	W1-029 E	16.6587	Adder	19.6
913392	Y1-086 E	0.5878	Adder	0.69
916042	Z1-036 E (Suspended)	19.6363	Adder	23.1
917122	Z2-027 E	0.3186	Adder	0.37
917332	Z2-043 E	1.2312	50/50	1.2312
918492	AA1-063AE OP	2.0006	Adder	2.35
918512	AA1-065 E OP	7.4035	50/50	7.4035
919692	AA2-053 E OP	2.6827	50/50	2.6827
920042	AA2-088 E OP	6.4864	50/50	6.4864
920692	AA2-178 E	2.8027	50/50	2.8027
923262	AB1-132 C OP (Suspended)	6.5288	Adder	7.68
923263	AB1-132 E OP (Suspended)	2.7981	Adder	3.29
923573	AB1-173 E OP	0.4052	Adder	0.48
923832	AB2-022 E	0.3318	Adder	0.39
923991	AB2-040 C O1	2.8301	Adder	3.33
923992	AB2-040 E O1	2.3155	Adder	2.72
925785	AC1-054 E	1.0044	Adder	1.18
926070	AC1-086 C	9.6145	Adder	11.31
926071	AC1-086 E	4.3759	Adder	5.15
926201	AC1-098 C	3.0832	Adder	3.63
926202	AC1-098 E	1.8368	Adder	2.16
926211	AC1-099 C	1.0332	Adder	1.22
926212	AC1-099 E	0.6068	Adder	0.71
927145	AC1-208 C	2.8701	Adder	3.38
927146	AC1-208 E	1.2693	Adder	1.49
932631	AC2-084 C	4.3952	Adder	5.17
932632	AC2-084 E	2.1648	Adder	2.55
933991	AD1-023 C	13.9324	50/50	13.9324
933992	AD1-023 E	7.5848	50/50	7.5848
934521	AD1-076 C	42.8423	50/50	42.8423
934522	AD1-076 E	21.8152	50/50	21.8152
936401	AD2-051 C O1	15.8526	50/50	15.8526
936402	AD2-051 E O1	6.8069	50/50	6.8069
938221	AE1-035 C	0.6522	50/50	0.6522
938222	AE1-035 E	2.0360	50/50	2.0360
938771	AE1-103 C	1.1215	Adder	1.32
938772	AE1-103 E	1.5488	Adder	1.82
940491	AE2-034 C	4.9048	50/50	4.9048
940492	AE2-034 E	2.1020	50/50	2.1020
941501	AE2-147 C	5.7444	Adder	6.76
941502	AE2-147 E	3.8296	Adder	4.51
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2535	50/50	0.2535

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.8652	50/50	0.8652
942471	AE2-260 C O1	4.2585	Adder	5.01
942472	AE2-260 E O1	6.0401	Adder	7.11
943171	AE2-346 C	1.8775	50/50	1.8775
943172	AE2-346 E	0.8046	50/50	0.8046
944871	AF1-152 C	1.9148	Adder	2.25
944872	AF1-152 E	1.2765	Adder	1.5
945711	AF1-236 C O1	53.6954	50/50	53.6954
945712	AF1-236 E O1	33.1655	50/50	33.1655
946281	AF1-292 C	0.4794	Adder	0.56
946282	AF1-292 E	0.3232	Adder	0.38
957521	AF2-046 C	16.4700	50/50	16.4700
957522	AF2-046 E	8.2845	50/50	8.2845
957531	AF2-047 C	11.6546	50/50	11.6546
957532	AF2-047 E	5.8624	50/50	5.8624
957821	AF2-076 C	9.2553	50/50	9.2553
957822	AF2-076 E	6.1702	50/50	6.1702
960081	AF2-299 C	0.8080	Adder	0.95
960082	AF2-299 E	0.5386	Adder	0.63
961091	AF2-400 C	0.1755	Adder	0.21
961092	AF2-400 E	0.2880	Adder	0.34
961601	AG1-000A BAT	2.4834	Merchant Transmission	2.4834
961681	AG1-008 C	16.5030	50/50	16.5030
961682	AG1-008 E	8.2515	50/50	8.2515
961931	AG1-036 C	1.5885	50/50	1.5885
961932	AG1-036 E	1.0590	50/50	1.0590
961941	AG1-037 C	0.6705	50/50	0.6705
961942	AG1-037 E	0.4470	50/50	0.4470
962331	AG1-082 C	2.6821	50/50	2.6821
962332	AG1-082 E	1.7881	50/50	1.7881
962341	AG1-083 C	2.6821	50/50	2.6821
962342	AG1-083 E	1.7881	50/50	1.7881
962351	AG1-084 C	2.5955	50/50	2.5955
962352	AG1-084 E	1.7303	50/50	1.7303
962361	AG1-085 C	2.5955	50/50	2.5955
962362	AG1-085 E	1.7303	50/50	1.7303
962571	AG1-106 C	1.4171	Adder	3.15
962572	AG1-106 E	0.6426	Adder	1.43
964491	AG1-312 C O1	32.5987	50/50	32.5987
964492	AG1-312 E O1	8.1497	50/50	8.1497
964501	AG1-313 C O2	4.2797	50/50	4.2797
964502	AG1-313 E O2	2.8531	50/50	2.8531
964801	AG1-343 C	4.0527	50/50	4.0527
964802	AG1-343 E	3.1842	50/50	3.1842
965291	AG1-394 C	1.3004	50/50	1.3004
965292	AG1-394 E	0.8670	50/50	0.8670
965631	AG1-431	31.0868	50/50	31.0868
965691	AG1-437 C O1	12.9348	50/50	12.9348
965692	AG1-437 E O1	8.6232	50/50	8.6232
965701	AG1-438 C O1	12.9348	50/50	12.9348
965702	AG1-438 E O1	8.6232	50/50	8.6232

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965741	AG1-442 O1	7.5453	50/50	7.5453
965751	AG1-443 O1	7.5453	50/50	7.5453
965762	AG1-444 BAT	14.0912	50/50	14.0912
966491	AG1-518 O2	1.6916	Adder	3.75
966621	AG1-532 C	0.2312	Adder	0.51
966622	AG1-532 E	0.1542	Adder	0.34
966751	AG1-546 C	2.6914	Adder	5.97
966752	AG1-546 E	1.4441	Adder	3.21
966811	AG1-552 C	0.5186	Adder	1.15
966812	AG1-552 E	0.2223	Adder	0.49
966931	AG1-431A	23.3560	50/50	23.3560
G-007A	G-007A	0.5490	Confirmed LTF	0.5490
VFT	VFT	1.4642	Confirmed LTF	1.4642
CALDERWOOD	CALDERWOOD	0.6739	Confirmed LTF	0.6739
PRAIRIE	PRAIRIE	2.2937	Confirmed LTF	2.2937
CHEOAH	CHEOAH	0.6912	Confirmed LTF	0.6912
CBM-N	CBM-N	0.2664	Confirmed LTF	0.2664
COTTONWOOD	COTTONWOOD	2.5158	Confirmed LTF	2.5158
HAMLET	HAMLET	1.5685	Confirmed LTF	1.5685
GIBSON	GIBSON	0.3969	Confirmed LTF	0.3969
BLUEG	BLUEG	1.2187	Confirmed LTF	1.2187
TRIMBLE	TRIMBLE	0.3862	Confirmed LTF	0.3862
CATAWBA	CATAWBA	0.7255	Confirmed LTF	0.7255

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174305730	314573	3EVERETS	DVP	314574	6EVERETS	DVP	2	DVP_P4-2: H2T2014	breaker	289.3	158.19	159.58	DC	4.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314594	6PLYMOTH	0.0828	50/50	0.0828
315292	1DOMTR78	2.2527	50/50	2.2527
315293	1DOMTR9	11.6513	50/50	11.6513
315294	1DOMTR10	14.2785	50/50	14.2785
315614	AA2-178 C	1.1658	50/50	1.1658
901082	W1-029 E	13.5195	Adder	15.91
913392	Y1-086 E	0.5296	Adder	0.62
916042	Z1-036 E (Suspended)	19.2387	Adder	22.63
917122	Z2-027 E	0.2829	Adder	0.33
918512	AA1-065 E OP	1.3060	Adder	1.54
920692	AA2-178 E	3.1668	50/50	3.1668
923832	AB2-022 E	0.2990	Adder	0.35
925121	AB2-169 C	2.6695	50/50	2.6695
925122	AB2-169 E	15.1851	50/50	15.1851
933991	AD1-023 C	10.4141	50/50	10.4141

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933992	AD1-023 E	5.6695	50/50	5.6695
934521	AD1-076 C	50.9272	50/50	50.9272
934522	AD1-076 E	25.9320	50/50	25.9320
936401	AD2-051 C O1	2.7802	Adder	3.27
936402	AD2-051 E O1	1.1938	Adder	1.4
938222	AE1-035 E	0.3592	Adder	0.42
940491	AE2-034 C	5.5419	50/50	5.5419
940492	AE2-034 E	2.3751	50/50	2.3751
941501	AE2-147 C	4.6619	Adder	5.48
941502	AE2-147 E	3.1079	Adder	3.66
944871	AF1-152 C	1.5540	Adder	1.83
944872	AF1-152 E	1.0360	Adder	1.22
945711	AF1-236 C O1	60.6706	50/50	60.6706
945712	AF1-236 E O1	37.4738	50/50	37.4738
957531	AF2-047 C	13.1686	50/50	13.1686
957532	AF2-047 E	6.6239	50/50	6.6239
959511	AF2-242 C	23.9868	50/50	23.9868
959512	AF2-242 E	18.6564	50/50	18.6564
961601	AG1-000A BAT	2.4367	Merchant Transmission	2.4367
964491	AG1-312 C O1	3.7065	Adder	8.23
964492	AG1-312 E O1	0.9266	Adder	2.06
965631	AG1-431	35.1251	50/50	35.1251
965691	AG1-437 C O1	6.8622	50/50	6.8622
965692	AG1-437 E O1	4.5748	50/50	4.5748
965701	AG1-438 C O1	6.8622	50/50	6.8622
965702	AG1-438 E O1	4.5748	50/50	4.5748
965741	AG1-442 O1	4.0030	50/50	4.0030
965751	AG1-443 O1	4.0030	50/50	4.0030
965762	AG1-444 BAT	9.6624	50/50	9.6624
966801	AG1-551 C	8.7009	50/50	8.7009
966802	AG1-551 E	3.7289	50/50	3.7289
966931	AG1-431A	26.3900	50/50	26.3900
G-007A	G-007A	0.4963	Confirmed LTF	0.4963
VFT	VFT	1.3223	Confirmed LTF	1.3223
CALDERWOOD	CALDERWOOD	0.5313	Confirmed LTF	0.5313
PRAIRIE	PRAIRIE	1.8055	Confirmed LTF	1.8055
CHEOAH	CHEOAH	0.5445	Confirmed LTF	0.5445
CBM-N	CBM-N	0.2412	Confirmed LTF	0.2412
COTTONWOOD	COTTONWOOD	1.9761	Confirmed LTF	1.9761
HAMLET	HAMLET	1.2151	Confirmed LTF	1.2151
GIBSON	GIBSON	0.3134	Confirmed LTF	0.3134
BLUEG	BLUEG	0.9635	Confirmed LTF	0.9635
TRIMBLE	TRIMBLE	0.3055	Confirmed LTF	0.3055
CATAWBA	CATAWBA	0.5722	Confirmed LTF	0.5722

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
174305779	314573	3EVERETS	DVP	314574	6EVERETS	DVP	1	DVP_P4-2: H4T2014	breaker	328.7	137.7	138.91	DC	3.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314594	6PLYMOTH	0.0820	50/50	0.0820
315292	1DOMTR78	2.2317	50/50	2.2317
315293	1DOMTR9	11.5427	50/50	11.5427
315294	1DOMTR10	14.1455	50/50	14.1455
315614	AA2-178 C	1.1549	50/50	1.1549
901082	W1-029 E	13.3931	Adder	15.76
916042	Z1-036 E (Suspended)	19.0610	Adder	22.42
917122	Z2-027 E	0.2803	Adder	0.33
918512	AA1-065 E OP	1.2938	Adder	1.52
920692	AA2-178 E	3.1373	50/50	3.1373
925121	AB2-169 C	2.6447	50/50	2.6447
925122	AB2-169 E	15.0437	50/50	15.0437
933991	AD1-023 C	10.3170	50/50	10.3170
933992	AD1-023 E	5.6166	50/50	5.6166
934521	AD1-076 C	50.4557	50/50	50.4557
934522	AD1-076 E	25.6920	50/50	25.6920
936401	AD2-051 C O1	2.7544	Adder	3.24
936402	AD2-051 E O1	1.1827	Adder	1.39
938222	AE1-035 E	0.3558	Adder	0.42
940491	AE2-034 C	5.4902	50/50	5.4902
940492	AE2-034 E	2.3530	50/50	2.3530
941501	AE2-147 C	4.6183	Adder	5.43
941502	AE2-147 E	3.0789	Adder	3.62
944871	AF1-152 C	1.5394	Adder	1.81
944872	AF1-152 E	1.0263	Adder	1.21
945711	AF1-236 C O1	60.1051	50/50	60.1051
945712	AF1-236 E O1	37.1245	50/50	37.1245
957531	AF2-047 C	13.0459	50/50	13.0459
957532	AF2-047 E	6.5621	50/50	6.5621
959511	AF2-242 C	23.7636	50/50	23.7636
959512	AF2-242 E	18.4828	50/50	18.4828
961601	AG1-000A BAT	2.4143	Merchant Transmission	2.4143
964491	AG1-312 C O1	3.6722	Adder	8.15
964492	AG1-312 E O1	0.9180	Adder	2.04
965631	AG1-431	34.7977	50/50	34.7977
965691	AG1-437 C O1	6.7980	50/50	6.7980
965692	AG1-437 E O1	4.5320	50/50	4.5320
965701	AG1-438 C O1	6.7980	50/50	6.7980
965702	AG1-438 E O1	4.5320	50/50	4.5320
965741	AG1-442 O1	3.9655	50/50	3.9655
965751	AG1-443 O1	3.9655	50/50	3.9655

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965762	AG1-444 BAT	9.5720	50/50	9.5720
966801	AG1-551 C	8.6198	50/50	8.6198
966802	AG1-551 E	3.6942	50/50	3.6942
966931	AG1-431A	26.1440	50/50	26.1440
G-007A	G-007A	0.4915	Confirmed LTF	0.4915
VFT	VFT	1.3094	Confirmed LTF	1.3094
CALDERWOOD	CALDERWOOD	0.5263	Confirmed LTF	0.5263
PRAIRIE	PRAIRIE	1.7900	Confirmed LTF	1.7900
CHEOAH	CHEOAH	0.5395	Confirmed LTF	0.5395
CBM-N	CBM-N	0.2388	Confirmed LTF	0.2388
COTTONWOOD	COTTONWOOD	1.9593	Confirmed LTF	1.9593
HAMLET	HAMLET	1.2035	Confirmed LTF	1.2035
GIBSON	GIBSON	0.3107	Confirmed LTF	0.3107
BLUEG	BLUEG	0.9548	Confirmed LTF	0.9548
TRIMBLE	TRIMBLE	0.3027	Confirmed LTF	0.3027
CATAWBA	CATAWBA	0.5670	Confirmed LTF	0.5670

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
163841849	314574	6EVERETS	DVP	304451	6GREENVILLE	CPL	1	DVP_P7-1: LN 2058-2181	tower	478.0	227.35	228.64	DC	6.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.9855	Adder	3.51
314539	3UNCAMP	2.4187	Adder	2.85
314541	3WATKINS	0.2950	Adder	0.35
314572	3EMPORIA	0.1716	Adder	0.2
314582	3KELFORD	0.2963	50/50	0.2963
314589	3MURPHYS	0.0602	50/50	0.0602
314594	6PLYMOTH	0.0896	50/50	0.0896
314632	6AYDLETOLD	0.6586	Adder	0.77
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.5990	50/50	9.5990
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.5990	50/50	9.5990
315136	1ROSEMG1	1.5370	50/50	1.5370
315137	1ROSEMS1	0.9531	50/50	0.9531
315138	1ROSEMG2	0.7203	50/50	0.7203
315139	1GASTONA	2.1216	50/50	2.1216
315141	1GASTONB	2.1216	50/50	2.1216
315292	1DOMTR78	1.6763	50/50	1.6763
315293	1DOMTR9	8.6700	50/50	8.6700
315294	1DOMTR10	10.6250	50/50	10.6250
315601	1CONETOE2SOL	2.1704	50/50	2.1704
315602	1HOLLOMAN SOL	1.5332	50/50	1.5332

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315606	3AA2-053SOLA	0.9398	50/50	0.9398
315611	6Z1-036WIND	0.6573	50/50	0.6573
315614	AA2-178 C	1.2997	50/50	1.2997
316088	AB2-174 E	2.7352	Adder	3.22
316097	AB2-100 E1	1.2133	Adder	1.43
316099	AB2-100 E2	1.2133	Adder	1.43
316103	AB2-015 C	3.5908	Adder	4.22
316104	AB2-015 E	2.9445	Adder	3.46
316140	AB2-099 C (Suspended)	0.5180	50/50	0.5180
316141	AB2-099 E (Suspended)	0.2220	50/50	0.2220
900672	V4-068 E	0.2092	50/50	0.2092
901082	W1-029 E	18.7397	Adder	22.05
913392	Y1-086 E	0.7676	Adder	0.9
916042	Z1-036 E (Suspended)	27.9147	50/50	27.9147
917122	Z2-027 E	0.3981	Adder	0.47
917332	Z2-043 E	0.8838	50/50	0.8838
917342	Z2-044 E	0.2085	Adder	0.25
917512	Z2-088 E OP1	12.8742	50/50	12.8742
918492	AA1-063AE OP	2.0182	Adder	2.37
918512	AA1-065 E OP	4.3514	50/50	4.3514
918532	AA1-067 E	1.5974	50/50	1.5974
919692	AA2-053 E OP	2.4457	50/50	2.4457
919702	AA2-057 E OP	1.3810	Adder	1.62
920042	AA2-088 E OP	5.1904	Adder	6.11
920592	AA2-165 E	0.1898	Adder	0.22
920692	AA2-178 E	3.5306	50/50	3.5306
922923	AB1-081 E OP	1.4211	Adder	1.67
923262	AB1-132 C OP (Suspended)	10.2690	50/50	10.2690
923263	AB1-132 E OP (Suspended)	4.4010	50/50	4.4010
923573	AB1-173 E OP	0.4656	Adder	0.55
923832	AB2-022 E	0.4333	Adder	0.51
923991	AB2-040 C O1	3.2516	Adder	3.83
923992	AB2-040 E O1	2.6604	Adder	3.13
924152	AB2-059 E OP	2.0132	Adder	2.37
925121	AB2-169 C	1.6064	50/50	1.6064
925122	AB2-169 E	9.1375	50/50	9.1375
925591	AC1-034 C	2.5313	Adder	2.98
925592	AC1-034 E	1.9096	Adder	2.25
926070	AC1-086 C	15.1223	50/50	15.1223
926071	AC1-086 E	6.8827	50/50	6.8827
926201	AC1-098 C	3.8972	50/50	3.8972
926202	AC1-098 E	2.3218	50/50	2.3218
926211	AC1-099 C	1.3060	50/50	1.3060
926212	AC1-099 E	0.7670	50/50	0.7670
927024	AC1-189 C	15.5186	50/50	15.5186
927025	AC1-189 E	7.7302	50/50	7.7302
927145	AC1-208 C	4.2602	Adder	5.01
927146	AC1-208 E	1.8840	Adder	2.22
932631	AC2-084 C	5.5556	50/50	5.5556
932632	AC2-084 E	2.7364	50/50	2.7364
933991	AD1-023 C	13.4949	50/50	13.4949

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933992	AD1-023 E	7.3467	50/50	7.3467
934331	AD1-057 C O1	8.8818	50/50	8.8818
934332	AD1-057 E O1	4.7379	50/50	4.7379
934521	AD1-076 C	54.8301	50/50	54.8301
934522	AD1-076 E	27.9194	50/50	27.9194
936401	AD2-051 C O1	9.4142	50/50	9.4142
936402	AD2-051 E O1	4.0424	50/50	4.0424
938221	AE1-035 C	0.3834	50/50	0.3834
938222	AE1-035 E	1.1966	50/50	1.1966
938535	AE1-072 C	5.1769	Adder	6.09
938536	AE1-072 E	2.6669	Adder	3.14
938771	AE1-103 C	1.3869	Adder	1.63
938772	AE1-103 E	1.9153	Adder	2.25
940491	AE2-034 C	6.1786	50/50	6.1786
940492	AE2-034 E	2.6480	50/50	2.6480
940571	AE2-044 C	1.6579	Adder	1.95
940572	AE2-044 E	0.7105	Adder	0.84
941501	AE2-147 C	6.4620	Adder	7.6
941502	AE2-147 E	4.3080	Adder	5.07
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1618	50/50	0.1618
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.5523	50/50	0.5523
942471	AE2-260 C O1	5.7670	Adder	6.78
942472	AE2-260 E O1	8.1798	Adder	9.62
943171	AE2-346 C	1.2432	50/50	1.2432
943172	AE2-346 E	0.5328	50/50	0.5328
944141	AF1-082	1.0658	Adder	1.25
944871	AF1-152 C	2.1540	Adder	2.53
944872	AF1-152 E	1.4360	Adder	1.69
945711	AF1-236 C O1	67.6412	50/50	67.6412
945712	AF1-236 E O1	41.7792	50/50	41.7792
946281	AF1-292 C	0.5921	Adder	0.7
946282	AF1-292 E	0.3992	Adder	0.47
957521	AF2-046 C	12.3552	50/50	12.3552
957522	AF2-046 E	6.2148	50/50	6.2148
957531	AF2-047 C	14.6816	50/50	14.6816
957532	AF2-047 E	7.3849	50/50	7.3849
957821	AF2-076 C	1.7985	Adder	2.12
957822	AF2-076 E	1.1990	Adder	1.41
957861	AF2-080 C	14.0946	50/50	14.0946
957862	AF2-080 E	6.2481	50/50	6.2481
959511	AF2-242 C	13.2102	50/50	13.2102
959512	AF2-242 E	10.2746	50/50	10.2746
960081	AF2-299 C	0.9979	Adder	1.17
960082	AF2-299 E	0.6653	Adder	0.78
961091	AF2-400 C	0.1939	Adder	0.23
961092	AF2-400 E	0.3181	Adder	0.37
961671	AG1-007 C	1.8117	50/50	1.8117
961672	AG1-007 E	1.0117	50/50	1.0117
961681	AG1-008 C	12.3800	50/50	12.3800
961682	AG1-008 E	6.1900	50/50	6.1900
961851	AG1-027 C	2.9209	Adder	6.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961852	AG1-027 E	1.6147	Adder	3.58
961931	AG1-036 C	1.1069	50/50	1.1069
961932	AG1-036 E	0.7380	50/50	0.7380
961941	AG1-037 C	0.4440	50/50	0.4440
961942	AG1-037 E	0.2960	50/50	0.2960
962331	AG1-082 C	1.7760	50/50	1.7760
962332	AG1-082 E	1.1840	50/50	1.1840
962341	AG1-083 C	1.7760	50/50	1.7760
962342	AG1-083 E	1.1840	50/50	1.1840
962351	AG1-084 C	1.6569	50/50	1.6569
962352	AG1-084 E	1.1046	50/50	1.1046
962361	AG1-085 C	1.6569	50/50	1.6569
962362	AG1-085 E	1.1046	50/50	1.1046
962571	AG1-106 C	4.2054	50/50	4.2054
962572	AG1-106 E	1.9071	50/50	1.9071
964491	AG1-312 C O1	20.1914	50/50	20.1914
964492	AG1-312 E O1	5.0478	50/50	5.0478
964501	AG1-313 C O2	3.3796	50/50	3.3796
964502	AG1-313 E O2	2.2531	50/50	2.2531
964801	AG1-343 C	3.6197	50/50	3.6197
964802	AG1-343 E	2.8440	50/50	2.8440
965291	AG1-394 C	1.2042	50/50	1.2042
965292	AG1-394 E	0.8028	50/50	0.8028
965631	AG1-431	39.1607	50/50	39.1607
965691	AG1-437 C O1	10.5492	50/50	10.5492
965692	AG1-437 E O1	7.0328	50/50	7.0328
965701	AG1-438 C O1	10.5492	50/50	10.5492
965702	AG1-438 E O1	7.0328	50/50	7.0328
965711	AG1-439 C O1	38.9340	50/50	38.9340
965712	AG1-439 E O1	25.9560	50/50	25.9560
965741	AG1-442 O1	6.1537	50/50	6.1537
965751	AG1-443 O1	6.1537	50/50	6.1537
965761	AG1-444 O1	20.7648	50/50	20.7648
966491	AG1-518 O2	1.3817	Adder	3.07
966621	AG1-532 C	0.2856	Adder	0.63
966622	AG1-532 E	0.1904	Adder	0.42
966751	AG1-546 C	2.7754	Adder	6.16
966752	AG1-546 E	1.4892	Adder	3.31
966801	AG1-551 C	4.5154	50/50	4.5154
966802	AG1-551 E	1.9352	50/50	1.9352
966811	AG1-552 C	0.5563	Adder	1.23
966812	AG1-552 E	0.2384	Adder	0.53
966931	AG1-431A	29.4220	50/50	29.4220
G-007A	G-007A	1.1364	Confirmed LTF	1.1364
VFT	VFT	3.0250	Confirmed LTF	3.0250
CALDERWOOD	CALDERWOOD	1.3349	Confirmed LTF	1.3349
PRAIRIE	PRAIRIE	4.5383	Confirmed LTF	4.5383
AC1-131	AC1-131	5.3107	LTF	5.3107
CHEOAH	CHEOAH	1.3689	Confirmed LTF	1.3689
CBM-N	CBM-N	0.5508	Confirmed LTF	0.5508
COTTONWOOD	COTTONWOOD	4.9854	Confirmed LTF	4.9854
HAMLET	HAMLET	3.1098	Confirmed LTF	3.1098

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.7851	Confirmed LTF	0.7851
BLUEG	BLUEG	2.4096	Confirmed LTF	2.4096
TRIMBLE	TRIMBLE	0.7641	Confirmed LTF	0.7641
CATAWBA	CATAWBA	1.4357	Confirmed LTF	1.4357

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
169038693	314575	6NUCO TP	DVP	957820	AF2-076 TAP	DVP	1	DVP_P1-2: LN 2092	single	571.52	229.53	231.79	DC	12.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	5.3764	80/20	5.3764
313527	AB2-043 C	0.1797	80/20	0.1797
313719	3CHESTNUT	1.2166	80/20	1.2166
314572	3EMPORIA	0.2919	80/20	0.2919
314582	3KELFORD	0.6058	80/20	0.6058
314589	3MURPHYS	0.0945	80/20	0.0945
314623	3WITAKRS	0.2162	80/20	0.2162
314704	3LAWRENC	0.1658	80/20	0.1658
315115	1S HAMPT1	0.4948	80/20	0.4948
315126	1ROARAP2	1.2875	80/20	1.2875
315128	1ROARAP4	1.2286	80/20	1.2286
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315136	1ROSEMG1	2.1445	80/20	2.1445
315137	1ROSEMS1	1.3298	80/20	1.3298
315138	1ROSEMG2	1.0051	80/20	1.0051
315139	1GASTONA	3.1370	80/20	3.1370
315141	1GASTONB	3.1370	80/20	3.1370
315158	1KERR 1	0.1949	80/20	0.1949
315159	1KERR 2	0.5458	80/20	0.5458
315160	1KERR 3	0.5458	80/20	0.5458
315161	1KERR 4	0.5458	80/20	0.5458
315162	1KERR 5	0.5458	80/20	0.5458
315163	1KERR 6	0.5458	80/20	0.5458
315164	1KERR 7	0.5458	80/20	0.5458
315292	1DOMTR78	2.6257	80/20	2.6257
315293	1DOMTR9	13.5803	80/20	13.5803
315294	1DOMTR10	16.6425	80/20	16.6425
315601	1CONETOE2SOL	1.7196	80/20	1.7196
315602	1HOLLOMANSOL	3.2518	80/20	3.2518
315606	3AA2-053SOLA	1.6490	80/20	1.6490
315607	3AA1-063SOLA	1.1822	80/20	1.1822

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315608	3AA2-088SOLA	0.6872	80/20	0.6872
315611	6Z1-036WIND	2.1843	80/20	2.1843
315614	AA2-178 C	3.1366	80/20	3.1366
316020	AB2-059 C OP	1.5978	80/20	1.5978
316087	AB2-174 C	0.8423	80/20	0.8423
316096	AB2-100 C1	0.5758	80/20	0.5758
316098	AB2-100 C2	0.5758	80/20	0.5758
316129	AC1-054 C	5.2403	80/20	5.2403
316131	AB2-060 C	0.5087	80/20	0.5087
316140	AB2-099 C (Suspended)	1.0074	80/20	1.0074
920591	AA2-165 C	0.1633	80/20	0.1633
922922	AB1-081 C OP	1.3557	80/20	1.3557
923991	AB2-040 C O1	5.8555	80/20	5.8555
924301	AB2-077 C O1 (Suspended)	0.7260	80/20	0.7260
924311	AB2-078 C O1 (Suspended)	0.7260	80/20	0.7260
924321	AB2-079 C O1 (Suspended)	0.7260	80/20	0.7260
925121	AB2-169 C	1.8885	80/20	1.8885
925591	AC1-034 C	6.5600	80/20	6.5600
926070	AC1-086 C	22.3600	80/20	22.3600
926201	AC1-098 C	8.0404	80/20	8.0404
926211	AC1-099 C	2.6944	80/20	2.6944
927024	AC1-189 C	11.8698	80/20	11.8698
927145	AC1-208 C	10.1498	80/20	10.1498
932631	AC2-084 C	11.4618	80/20	11.4618
933991	AD1-023 C	28.1849	80/20	28.1849
934331	AD1-057 C O1	10.1494	80/20	10.1494
934521	AD1-076 C	113.8581	80/20	113.8581
936361	AD2-046 C O1	4.3133	80/20	4.3133
936401	AD2-051 C O1	19.8559	80/20	19.8559
936485	AD2-063 C	4.9383	80/20	4.9383
938221	AE1-035 C	0.8131	80/20	0.8131
939181	AE1-148 C	4.2098	80/20	4.2098
940481	AE2-033 C	4.4571	80/20	4.4571
940491	AE2-034 C	14.9108	80/20	14.9108
940571	AE2-044 C	4.2966	80/20	4.2966
940661	AE2-053 O1	1.5592	80/20	1.5592
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.3297	80/20	0.3297
942131	AE2-225 C	-1.0743	Adder	-1.26
942171	AE2-229 C	-0.8057	Adder	-0.95
942451	AE2-258	0.8499	80/20	0.8499
942471	AE2-260 C O1	8.2667	80/20	8.2667
943171	AE2-346 C	2.4178	80/20	2.4178
943611	AF1-032 C	-0.8773	Adder	-1.03
943911	AF1-059	8.1959	80/20	8.1959
944141	AF1-082	2.7621	80/20	2.7621
945711	AF1-236 C O1	163.2382	80/20	163.2382
946281	AF1-292 C	0.9810	80/20	0.9810
957491	AF2-043 C	-1.0743	Adder	-1.26
957521	AF2-046 C	20.4271	80/20	20.4271

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957531	AF2-047 C	35.4310	80/20	35.4310
957861	AF2-080 C	10.7806	80/20	10.7806
959511	AF2-242 C	13.0307	80/20	13.0307
960081	AF2-299 C	1.6533	80/20	1.6533
961671	AG1-007 C	1.4833	80/20	1.4833
961681	AG1-008 C	20.4680	80/20	20.4680
961931	AG1-036 C	2.0158	80/20	2.0158
961941	AG1-037 C	0.8635	80/20	0.8635
962271	AG1-075 C O2	4.6675	80/20	4.6675
962331	AG1-082 C	3.4540	80/20	3.4540
962341	AG1-083 C	3.4540	80/20	3.4540
962351	AG1-084 C	3.3758	80/20	3.3758
962361	AG1-085 C	3.3758	80/20	3.3758
962491	AG1-098 C O2	4.3132	80/20	4.3132
962571	AG1-106 C	6.2181	80/20	6.2181
963301	AG1-179 C	3.0738	80/20	3.0738
963311	AG1-180	1.4976	80/20	1.4976
964491	AG1-312 C O1	42.7392	80/20	42.7392
964501	AG1-313 C O2	6.2746	80/20	6.2746
964801	AG1-343 C	4.7135	80/20	4.7135
964931	AG1-357 C O2	6.6084	80/20	6.6084
965291	AG1-394 C	1.4894	80/20	1.4894
965451	AG1-413 C O2	3.3660	80/20	3.3660
965591	AG1-427 C	3.9944	80/20	3.9944
965601	AG1-428 C O2	2.5661	80/20	2.5661
965631	AG1-431	94.5063	80/20	94.5063
965691	AG1-437 C O1	22.1316	80/20	22.1316
965701	AG1-438 C O1	22.1316	80/20	22.1316
965711	AG1-439 C O1	30.8475	80/20	30.8475
965721	AG1-440 C	4.2890	80/20	4.2890
965731	AG1-441 C	4.2890	80/20	4.2890
965741	AG1-442 O1	12.9101	80/20	12.9101
965751	AG1-443 O1	12.9101	80/20	12.9101
965761	AG1-444 O1	16.4520	80/20	16.4520
965771	AG1-445	2.4781	80/20	2.4781
965781	AG1-446	2.4781	80/20	2.4781
966621	AG1-532 C	0.8928	80/20	0.8928
966751	AG1-546 C	11.9536	80/20	11.9536
966801	AG1-551 C	3.8374	80/20	3.8374
966811	AG1-552 C	2.0442	80/20	2.0442
966931	AG1-431A	71.0040	80/20	71.0040
WEC	WEC	0.3330	Confirmed LTF	0.3330
LGEE	LGEE	0.6786	Confirmed LTF	0.6786
CPL	CPL	3.7381	Confirmed LTF	3.7381
CBM-W2	CBM-W2	14.1299	Confirmed LTF	14.1299
NY	NY	0.3019	Confirmed LTF	0.3019
TVA	TVA	2.6320	Confirmed LTF	2.6320
SIGE	SIGE	0.1896	Confirmed LTF	0.1896
CBM-S2	CBM-S2	40.4863	Confirmed LTF	40.4863
CBM-S1	CBM-S1	0.6593	Confirmed LTF	0.6593
MEC	MEC	1.9656	Confirmed LTF	1.9656
LAGN	LAGN	3.2847	Confirmed LTF	3.2847

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
AA2-074	AA2-074	2.4687	LTF	2.4687
CBM-W1	CBM-W1	14.0621	Confirmed LTF	14.0621

13.5.16 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
168527003	314583	6LAKEVEW	DVP	313725	6DRY BREAD	DVP	1	Base Case	single	375.06	146.64	147.66	DC	3.84

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.9722	80/20	0.9722
314582	3KELFORD	0.2814	80/20	0.2814
314589	3MURPHYS	0.0542	80/20	0.0542
314623	3WITAKRS	0.1835	80/20	0.1835
315115	1S HAMPT1	0.5794	80/20	0.5794
315126	1ROARAP2	1.0963	80/20	1.0963
315128	1ROARAP4	1.0462	80/20	1.0462
315131	1EDGE CMA (Deactivation : 22/04/2019)	8.6397	80/20	8.6397
315132	1EDGE CMB (Deactivation : 22/04/2019)	8.6397	80/20	8.6397
315136	1ROSEMG1	3.7855	80/20	3.7855
315137	1ROSEMS1	2.3474	80/20	2.3474
315138	1ROSEMG2	1.7742	80/20	1.7742
315139	1GASTONA	5.8317	80/20	5.8317
315141	1GASTONB	5.8317	80/20	5.8317
315292	1DOMTR78	0.7622	80/20	0.7622
315293	1DOMTR9	3.9421	80/20	3.9421
315294	1DOMTR10	4.8310	80/20	4.8310
315601	1CONETO E2SOL	1.1085	80/20	1.1085
315602	1HOLLOMAN SOL	1.1069	80/20	1.1069
315606	3AA2-053SOLA	1.1800	80/20	1.1800
315607	3AA1-063SOLA	0.9766	80/20	0.9766
315608	3AA2-088SOLA	0.5532	80/20	0.5532
315614	AA2-178 C	0.6514	80/20	0.6514
316020	AB2-059 C OP	1.4689	80/20	1.4689
316103	AB2-015 C	3.1315	80/20	3.1315
316129	AC1-054 C	3.7531	80/20	3.7531
316140	AB2-099 C (Suspended)	0.4313	80/20	0.4313
920591	AA2-165 C	0.1305	80/20	0.1305
922922	AB1-081 C OP	1.2464	80/20	1.2464
925121	AB2-169 C	0.6351	80/20	0.6351
925591	AC1-034 C	6.0307	80/20	6.0307
926070	AC1-086 C	41.5669	80/20	41.5669
926201	AC1-098 C	5.0869	80/20	5.0869
926211	AC1-099 C	1.7047	80/20	1.7047
927024	AC1-189 C	6.7903	80/20	6.7903

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927145	AC1-208 C	7.5959	80/20	7.5959
932631	AC2-084 C	7.2515	80/20	7.2515
933991	AD1-023 C	7.8803	80/20	7.8803
934331	AD1-057 C O1	14.1818	80/20	14.1818
934521	AD1-076 C	29.1773	80/20	29.1773
936401	AD2-051 C O1	7.1405	80/20	7.1405
938221	AE1-035 C	0.2767	80/20	0.2767
940491	AE2-034 C	3.0967	80/20	3.0967
940571	AE2-044 C	3.9500	80/20	3.9500
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1321	80/20	0.1321
943171	AE2-346 C	1.0352	80/20	1.0352
944141	AF1-082	2.5393	80/20	2.5393
945711	AF1-236 C O1	33.9011	80/20	33.9011
957521	AF2-046 C	10.9291	80/20	10.9291
957531	AF2-047 C	7.3583	80/20	7.3583
957861	AF2-080 C	6.1673	80/20	6.1673
959511	AF2-242 C	4.8425	80/20	4.8425
961091	AF2-400 C	0.1691	80/20	0.1691
961671	AG1-007 C	1.0534	80/20	1.0534
961681	AG1-008 C	10.9510	80/20	10.9510
961931	AG1-036 C	0.9462	80/20	0.9462
961941	AG1-037 C	0.3697	80/20	0.3697
962331	AG1-082 C	1.4789	80/20	1.4789
962341	AG1-083 C	1.4789	80/20	1.4789
962351	AG1-084 C	1.3523	80/20	1.3523
962361	AG1-085 C	1.3523	80/20	1.3523
962571	AG1-106 C	11.5594	80/20	11.5594
964491	AG1-312 C O1	14.2139	80/20	14.2139
964501	AG1-313 C O2	3.7075	80/20	3.7075
964801	AG1-343 C	3.4286	80/20	3.4286
965291	AG1-394 C	1.1546	80/20	1.1546
965631	AG1-431	19.6269	80/20	19.6269
965691	AG1-437 C O1	6.5814	80/20	6.5814
965701	AG1-438 C O1	6.5814	80/20	6.5814
965711	AG1-439 C O1	19.8855	80/20	19.8855
965721	AG1-440 C	2.5731	80/20	2.5731
965731	AG1-441 C	2.5731	80/20	2.5731
965741	AG1-442 O1	3.8392	80/20	3.8392
965751	AG1-443 O1	3.8392	80/20	3.8392
965761	AG1-444 O1	10.6056	80/20	10.6056
965771	AG1-445	1.4867	80/20	1.4867
965781	AG1-446	1.4867	80/20	1.4867
966751	AG1-546 C	8.7868	80/20	8.7868
966801	AG1-551 C	1.5616	80/20	1.5616
966811	AG1-552 C	1.7407	80/20	1.7407
966931	AG1-431A	14.7460	80/20	14.7460
WEC	WEC	0.2167	Confirmed LTF	0.2167
LGEE	LGEE	0.4417	Confirmed LTF	0.4417
CPL	CPL	2.5491	Confirmed LTF	2.5491
CBM-W2	CBM-W2	9.4259	Confirmed LTF	9.4259
NY	NY	0.2350	Confirmed LTF	0.2350

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TVA	TVA	1.7696	Confirmed LTF	1.7696
SIGE	SIGE	0.1316	Confirmed LTF	0.1316
CBM-S2	CBM-S2	27.7391	Confirmed LTF	27.7391
CBM-S1	CBM-S1	0.4416	Confirmed LTF	0.4416
MEC	MEC	1.2919	Confirmed LTF	1.2919
LAGN	LAGN	2.2067	Confirmed LTF	2.2067
AA2-074	AA2-074	1.6834	LTF	1.6834
CBM-W1	CBM-W1	9.1130	Confirmed LTF	9.1130

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
169038728	314596	3POPLR C	DVP	314573	3EVERETS	DVP	1	DVP_P1-2: LN 2034-A	single	269.78	158.81	162.3	DC	9.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1359	80/20	0.1359
314638	6ELIZ CT	0.0795	80/20	0.0795
314639	6TANGLEW	0.1666	80/20	0.1666
315292	1DOMTR78	2.9489	80/20	2.9489
315293	1DOMTR9	15.2523	80/20	15.2523
315294	1DOMTR10	18.6915	80/20	18.6915
315605	6W1-029WIND	0.5154	80/20	0.5154
315611	6Z1-036WIND	0.8173	80/20	0.8173
315614	AA2-178 C	1.9294	80/20	1.9294
925121	AB2-169 C	0.7408	80/20	0.7408
933991	AD1-023 C	20.9075	80/20	20.9075
934521	AD1-076 C	86.2940	80/20	86.2940
940491	AE2-034 C	9.1720	80/20	9.1720
941501	AE2-147 C	7.5384	80/20	7.5384
944871	AF1-152 C	2.5128	80/20	2.5128
945711	AF1-236 C O1	100.4111	80/20	100.4111
957531	AF2-047 C	21.7943	80/20	21.7943
964491	AG1-312 C O1	30.1370	80/20	30.1370
965631	AG1-431	58.1328	80/20	58.1328
965691	AG1-437 C O1	16.1448	80/20	16.1448
965701	AG1-438 C O1	16.1448	80/20	16.1448
965741	AG1-442 O1	9.4178	80/20	9.4178
965751	AG1-443 O1	9.4178	80/20	9.4178
966931	AG1-431A	43.6760	80/20	43.6760
G-007A	G-007A	0.3356	Confirmed LTF	0.3356
VFT	VFT	0.8965	Confirmed LTF	0.8965
CALDERWOOD	CALDERWOOD	0.3365	Confirmed LTF	0.3365
PRAIRIE	PRAIRIE	1.1443	Confirmed LTF	1.1443
CHEOAH	CHEOAH	0.3453	Confirmed LTF	0.3453
CBM-N	CBM-N	0.1632	Confirmed LTF	0.1632

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
COTTONWOOD	COTTONWOOD	1.2495	Confirmed LTF	1.2495
HAMLET	HAMLET	0.7588	Confirmed LTF	0.7588
GIBSON	GIBSON	0.1993	Confirmed LTF	0.1993
BLUEG	BLUEG	0.6128	Confirmed LTF	0.6128
TRIMBLE	TRIMBLE	0.1942	Confirmed LTF	0.1942
CATAWBA	CATAWBA	0.3626	Confirmed LTF	0.3626

13.5.18 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
169038737	314614	3TRWBRDG2	DVP	314596	3POPLR C	DVP	1	DVP_P1-2: LN 2034-A	single	285.76	149.58	152.88	DC	9.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1359	80/20	0.1359
314638	6ELIZ CT	0.0795	80/20	0.0795
314639	6TANGLEW	0.1666	80/20	0.1666
315292	1DOMTR78	2.9489	80/20	2.9489
315293	1DOMTR9	15.2523	80/20	15.2523
315294	1DOMTR10	18.6915	80/20	18.6915
315605	6W1-029WIND	0.5154	80/20	0.5154
315611	6Z1-036WIND	0.8173	80/20	0.8173
315614	AA2-178 C	1.9294	80/20	1.9294
925121	AB2-169 C	0.7408	80/20	0.7408
933991	AD1-023 C	20.9075	80/20	20.9075
934521	AD1-076 C	86.2940	80/20	86.2940
940491	AE2-034 C	9.1720	80/20	9.1720
941501	AE2-147 C	7.5384	80/20	7.5384
944871	AF1-152 C	2.5128	80/20	2.5128
945711	AF1-236 C O1	100.4111	80/20	100.4111
957531	AF2-047 C	21.7943	80/20	21.7943
964491	AG1-312 C O1	30.1370	80/20	30.1370
965631	AG1-431	58.1328	80/20	58.1328
965691	AG1-437 C O1	16.1448	80/20	16.1448
965701	AG1-438 C O1	16.1448	80/20	16.1448
965741	AG1-442 O1	9.4178	80/20	9.4178
965751	AG1-443 O1	9.4178	80/20	9.4178
966931	AG1-431A	43.6760	80/20	43.6760
G-007A	G-007A	0.3356	Confirmed LTF	0.3356
VFT	VFT	0.8965	Confirmed LTF	0.8965
CALDERWOOD	CALDERWOOD	0.3365	Confirmed LTF	0.3365
PRAIRIE	PRAIRIE	1.1443	Confirmed LTF	1.1443
CHEOAH	CHEOAH	0.3453	Confirmed LTF	0.3453
CBM-N	CBM-N	0.1632	Confirmed LTF	0.1632
COTTONWOOD	COTTONWOOD	1.2495	Confirmed LTF	1.2495
HAMLET	HAMLET	0.7588	Confirmed LTF	0.7588

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.1993	Confirmed LTF	0.1993
BLUEG	BLUEG	0.6128	Confirmed LTF	0.6128
TRIMBLE	TRIMBLE	0.1942	Confirmed LTF	0.1942
CATAWBA	CATAWBA	0.3626	Confirmed LTF	0.3626

13.5.19 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
174305714	314616	6TRWBRDG	DVP	314614	3TRWBRDG2	DVP	1	DVP_P4-2: 203462	breaker	199.8	171.89	174.81	DC	5.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314594	6PLYMOTH	0.0867	50/50	0.0867
315293	1DOMTR9	-9.0976	Adder	-10.7
315294	1DOMTR10	-11.1490	Adder	-13.12
315614	AA2-178 C	1.1957	50/50	1.1957
901082	W1-029 E	11.5384	Adder	13.57
916042	Z1-036 E (Suspended)	18.2970	Adder	21.53
920692	AA2-178 E	3.2479	50/50	3.2479
933991	AD1-023 C	12.9534	50/50	12.9534
933992	AD1-023 E	7.0518	50/50	7.0518
934521	AD1-076 C	53.4639	50/50	53.4639
934522	AD1-076 E	27.2237	50/50	27.2237
940491	AE2-034 C	5.6839	50/50	5.6839
940492	AE2-034 E	2.4359	50/50	2.4359
941501	AE2-147 C	3.9788	Adder	4.68
941502	AE2-147 E	2.6525	Adder	3.12
944871	AF1-152 C	1.3263	Adder	1.56
944872	AF1-152 E	0.8842	Adder	1.04
945711	AF1-236 C O1	62.2247	50/50	62.2247
945712	AF1-236 E O1	38.4337	50/50	38.4337
957531	AF2-047 C	13.5059	50/50	13.5059
957532	AF2-047 E	6.7936	50/50	6.7936
964491	AG1-312 C O1	18.6715	50/50	18.6715
964492	AG1-312 E O1	4.6679	50/50	4.6679
965631	AG1-431	36.0248	50/50	36.0248
965691	AG1-437 C O1	10.0026	50/50	10.0026
965692	AG1-437 E O1	6.6684	50/50	6.6684
965701	AG1-438 C O1	10.0026	50/50	10.0026
965702	AG1-438 E O1	6.6684	50/50	6.6684
965741	AG1-442 O1	5.8349	50/50	5.8349
965751	AG1-443 O1	5.8349	50/50	5.8349
966931	AG1-431A	27.0660	50/50	27.0660
G-007A	G-007A	0.2517	Confirmed LTF	0.2517
VFT	VFT	0.6772	Confirmed LTF	0.6772
CALDERWOOD	CALDERWOOD	0.1988	Confirmed LTF	0.1988

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	0.6612	Confirmed LTF	0.6612
CHEOAH	CHEOAH	0.2042	Confirmed LTF	0.2042
CBM-N	CBM-N	0.1236	Confirmed LTF	0.1236
COTTONWOOD	COTTONWOOD	0.7350	Confirmed LTF	0.7350
HAMLET	HAMLET	0.4591	Confirmed LTF	0.4591
GIBSON	GIBSON	0.1130	Confirmed LTF	0.1130
BLUEG	BLUEG	0.3472	Confirmed LTF	0.3472
TRIMBLE	TRIMBLE	0.1096	Confirmed LTF	0.1096
CATAWBA	CATAWBA	0.2177	Confirmed LTF	0.2177

13.5.20 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
168526993	314637	6EDENTON	DVP	313885	6WALBMRL	DVP	1	Base Case	single	733.2	146.33	147.64	DC	9.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1331	80/20	2.1331
313719	3CHESTNUT	0.5165	80/20	0.5165
314582	3KELFORD	0.2333	80/20	0.2333
314589	3MURPHYS	0.0370	80/20	0.0370
314623	3WITAKRS	0.0940	80/20	0.0940
315126	1ROARAP2	0.5120	80/20	0.5120
315128	1ROARAP4	0.4886	80/20	0.4886
315131	1EDGE CMA (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315132	1EDGE CMB (Deactivation : 22/04/2019)	4.1116	80/20	4.1116
315136	1ROSEMG1	0.8655	80/20	0.8655
315137	1ROSEMS1	0.5367	80/20	0.5367
315138	1ROSEMG2	0.4057	80/20	0.4057
315139	1GASTONA	1.2468	80/20	1.2468
315141	1GASTONB	1.2468	80/20	1.2468
315292	1DOMTR78	2.6052	80/20	2.6052
315293	1DOMTR9	13.4746	80/20	13.4746
315294	1DOMTR10	16.5130	80/20	16.5130
315601	1CONETOE2SOL	0.8402	80/20	0.8402
315602	1HOLLOMANSOL	1.2190	80/20	1.2190
315606	3AA2-053SOLA	0.6464	80/20	0.6464
315607	3AA1-063SOLA	0.4733	80/20	0.4733
315614	AA2-178 C	4.4673	80/20	4.4673
316020	AB2-059 C OP	0.7167	80/20	0.7167
316087	AB2-174 C	0.3340	80/20	0.3340
316140	AB2-099 C (Suspended)	0.3837	80/20	0.3837
920591	AA2-165 C	0.0693	80/20	0.0693
922922	AB1-081 C OP	0.6081	80/20	0.6081
923991	AB2-040 C O1	2.3232	80/20	2.3232

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925121	AB2-169 C	1.6131	80/20	1.6131
925591	AC1-034 C	2.9425	80/20	2.9425
926070	AC1-086 C	8.8866	80/20	8.8866
926201	AC1-098 C	3.2283	80/20	3.2283
926211	AC1-099 C	1.0818	80/20	1.0818
927024	AC1-189 C	5.8874	80/20	5.8874
927145	AC1-208 C	4.1650	80/20	4.1650
932631	AC2-084 C	4.6021	80/20	4.6021
933991	AD1-023 C	25.2222	80/20	25.2222
934331	AD1-057 C O1	4.3394	80/20	4.3394
934521	AD1-076 C	124.5855	80/20	124.5855
936401	AD2-051 C O1	7.4492	80/20	7.4492
938221	AE1-035 C	0.3048	80/20	0.3048
940491	AE2-034 C	21.2365	80/20	21.2365
940571	AE2-044 C	1.9272	80/20	1.9272
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1250	80/20	0.1250
943171	AE2-346 C	0.9210	80/20	0.9210
944141	AF1-082	1.2389	80/20	1.2389
945711	AF1-236 C O1	232.4887	80/20	232.4887
957521	AF2-046 C	7.9381	80/20	7.9381
957531	AF2-047 C	50.4619	80/20	50.4619
957861	AF2-080 C	5.3471	80/20	5.3471
959511	AF2-242 C	9.7474	80/20	9.7474
961671	AG1-007 C	0.7149	80/20	0.7149
961681	AG1-008 C	7.9540	80/20	7.9540
961931	AG1-036 C	0.7739	80/20	0.7739
961941	AG1-037 C	0.3289	80/20	0.3289
962331	AG1-082 C	1.3157	80/20	1.3157
962341	AG1-083 C	1.3157	80/20	1.3157
962351	AG1-084 C	1.2792	80/20	1.2792
962361	AG1-085 C	1.2792	80/20	1.2792
962571	AG1-106 C	2.4713	80/20	2.4713
964491	AG1-312 C O1	18.8709	80/20	18.8709
964501	AG1-313 C O2	2.4271	80/20	2.4271
964801	AG1-343 C	1.8970	80/20	1.8970
965291	AG1-394 C	0.6046	80/20	0.6046
965631	AG1-431	134.5987	80/20	134.5987
965691	AG1-437 C O1	16.4358	80/20	16.4358
965701	AG1-438 C O1	16.4358	80/20	16.4358
965711	AG1-439 C O1	15.0720	80/20	15.0720
965741	AG1-442 O1	9.5876	80/20	9.5876
965751	AG1-443 O1	9.5876	80/20	9.5876
965761	AG1-444 O1	8.0384	80/20	8.0384
966801	AG1-551 C	2.4639	80/20	2.4639
966811	AG1-552 C	0.8130	80/20	0.8130
966931	AG1-431A	101.1260	80/20	101.1260
WEC	WEC	0.1581	Confirmed LTF	0.1581
LGEE	LGEE	0.3223	Confirmed LTF	0.3223
CPL	CPL	1.7718	Confirmed LTF	1.7718
CBM-W2	CBM-W2	6.6931	Confirmed LTF	6.6931
NY	NY	0.1366	Confirmed LTF	0.1366

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TVA	TVA	1.2446	Confirmed LTF	1.2446
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	19.1365	Confirmed LTF	19.1365
CBM-S1	CBM-S1	0.3120	Confirmed LTF	0.3120
MEC	MEC	0.9327	Confirmed LTF	0.9327
LAGN	LAGN	1.5540	Confirmed LTF	1.5540
CBM-W1	CBM-W1	6.6875	Confirmed LTF	6.6875

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
174096899	314638	6ELIZ CT	DVP	314647	6SHAWBRO	DVP	1	DVP_P4-2: 246T247	breaker	699.0	277.71	279.19	DC	10.34

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	1.5877	50/50	1.5877
314582	3KELFORD	0.3271	50/50	0.3271
314589	3MURPHYS	0.0528	50/50	0.0528
314594	6PLYMOTH	0.2089	50/50	0.2089
314638	6ELIZ CT	0.9282	50/50	0.9282
314639	6TANGLEW	1.6342	50/50	1.6342
315292	1DOMTR78	2.5839	50/50	2.5839
315293	1DOMTR9	13.3644	50/50	13.3644
315294	1DOMTR10	16.3780	50/50	16.3780
315601	1CONETOE2SOL	1.0559	50/50	1.0559
315602	1HOLLOMAN SOL	1.7266	50/50	1.7266
315605	6W1-029 WIND	4.1551	50/50	4.1551
315606	3AA2-053 SOLA	0.9023	50/50	0.9023
315611	6Z1-036 WIND	3.7357	50/50	3.7357
315614	AA2-178 C	4.0818	50/50	4.0818
316140	AB2-099 C (Suspended)	0.5431	50/50	0.5431
316141	AB2-099 E (Suspended)	0.2327	50/50	0.2327
900672	V4-068 E	0.1833	50/50	0.1833
901082	W1-029 E	176.2507	50/50	176.2507
913392	Y1-086 E	9.5988	50/50	9.5988
916042	Z1-036 E (Suspended)	158.6457	50/50	158.6457
917122	Z2-027 E	4.4391	50/50	4.4391
917332	Z2-043 E	0.9758	50/50	0.9758
917512	Z2-088 E OP1	6.2635	50/50	6.2635
918512	AA1-065 E OP	4.9001	50/50	4.9001
918532	AA1-067 E	0.7263	50/50	0.7263
919692	AA2-053 E OP	2.3481	50/50	2.3481
920692	AA2-178 E	11.0880	50/50	11.0880
923832	AB2-022 E	5.4187	50/50	5.4187
925121	AB2-169 C	1.6669	50/50	1.6669
925122	AB2-169 E	9.4818	50/50	9.4818

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926201	AC1-098 C	4.4398	50/50	4.4398
926202	AC1-098 E	2.6450	50/50	2.6450
926211	AC1-099 C	1.4878	50/50	1.4878
926212	AC1-099 E	0.8738	50/50	0.8738
927024	AC1-189 C	7.3537	50/50	7.3537
927025	AC1-189 E	3.6631	50/50	3.6631
927145	AC1-208 C	5.6741	50/50	5.6741
927146	AC1-208 E	2.5093	50/50	2.5093
932631	AC2-084 C	6.3291	50/50	6.3291
932632	AC2-084 E	3.1173	50/50	3.1173
933991	AD1-023 C	25.7249	50/50	25.7249
933992	AD1-023 E	14.0047	50/50	14.0047
934521	AD1-076 C	120.5800	50/50	120.5800
934522	AD1-076 E	61.3992	50/50	61.3992
936401	AD2-051 C O1	10.5471	50/50	10.5471
936402	AD2-051 E O1	4.5288	50/50	4.5288
938221	AE1-035 C	0.4317	50/50	0.4317
938222	AE1-035 E	1.3475	50/50	1.3475
940491	AE2-034 C	19.4040	50/50	19.4040
940492	AE2-034 E	8.3160	50/50	8.3160
941501	AE2-147 C	60.7761	50/50	60.7761
941502	AE2-147 E	40.5174	50/50	40.5174
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1765	50/50	0.1765
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.6025	50/50	0.6025
943171	AE2-346 C	1.3033	50/50	1.3033
943172	AE2-346 E	0.5586	50/50	0.5586
944871	AF1-152 C	20.2587	50/50	20.2587
944872	AF1-152 E	13.5058	50/50	13.5058
945711	AF1-236 C O1	212.4276	50/50	212.4276
945712	AF1-236 E O1	131.2080	50/50	131.2080
957521	AF2-046 C	11.3014	50/50	11.3014
957522	AF2-046 E	5.6846	50/50	5.6846
957531	AF2-047 C	46.1076	50/50	46.1076
957532	AF2-047 E	23.1924	50/50	23.1924
957821	AF2-076 C	6.1242	50/50	6.1242
957822	AF2-076 E	4.0828	50/50	4.0828
957861	AF2-080 C	6.6789	50/50	6.6789
957862	AF2-080 E	2.9608	50/50	2.9608
959511	AF2-242 C	10.4859	50/50	10.4859
959512	AF2-242 E	8.1557	50/50	8.1557
961671	AG1-007 C	0.9036	50/50	0.9036
961672	AG1-007 E	0.5046	50/50	0.5046
961681	AG1-008 C	11.3240	50/50	11.3240
961682	AG1-008 E	5.6620	50/50	5.6620
961931	AG1-036 C	1.0977	50/50	1.0977
961932	AG1-036 E	0.7318	50/50	0.7318
961941	AG1-037 C	0.4655	50/50	0.4655
961942	AG1-037 E	0.3103	50/50	0.3103
962331	AG1-082 C	1.8619	50/50	1.8619
962332	AG1-082 E	1.2413	50/50	1.2413
962341	AG1-083 C	1.8619	50/50	1.8619

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962342	AG1-083 E	1.2413	50/50	1.2413
962351	AG1-084 C	1.8074	50/50	1.8074
962352	AG1-084 E	1.2049	50/50	1.2049
962361	AG1-085 C	1.8074	50/50	1.8074
962362	AG1-085 E	1.2049	50/50	1.2049
964491	AG1-312 C O1	24.7845	50/50	24.7845
964492	AG1-312 E O1	6.1961	50/50	6.1961
964501	AG1-313 C O2	3.4042	50/50	3.4042
964502	AG1-313 E O2	2.2695	50/50	2.2695
965631	AG1-431	122.9844	50/50	122.9844
965691	AG1-437 C O1	17.7264	50/50	17.7264
965692	AG1-437 E O1	11.8176	50/50	11.8176
965701	AG1-438 C O1	17.7264	50/50	17.7264
965702	AG1-438 E O1	11.8176	50/50	11.8176
965711	AG1-439 C O1	18.9420	50/50	18.9420
965712	AG1-439 E O1	12.6280	50/50	12.6280
965741	AG1-442 O1	10.3404	50/50	10.3404
965751	AG1-443 O1	10.3404	50/50	10.3404
965761	AG1-444 O1	10.1024	50/50	10.1024
966491	AG1-518 O2	33.7640	50/50	33.7640
966801	AG1-551 C	2.7892	50/50	2.7892
966802	AG1-551 E	1.1954	50/50	1.1954
966931	AG1-431A	92.4000	50/50	92.4000
WEC	WEC	0.1877	Confirmed LTF	0.1877
LGEE	LGEE	0.3833	Confirmed LTF	0.3833
CPL	CPL	2.2325	Confirmed LTF	2.2325
CBM-W2	CBM-W2	8.1536	Confirmed LTF	8.1536
NY	NY	0.2024	Confirmed LTF	0.2024
TVA	TVA	1.5288	Confirmed LTF	1.5288
O-066	O-066	2.9074	Confirmed LTF	2.9074
SIGE	SIGE	0.1138	Confirmed LTF	0.1138
CBM-S2	CBM-S2	24.0016	Confirmed LTF	24.0016
CBM-S1	CBM-S1	0.3819	Confirmed LTF	0.3819
G-007	G-007	0.4568	Confirmed LTF	0.4568
MEC	MEC	1.1202	Confirmed LTF	1.1202
LAGN	LAGN	1.9075	Confirmed LTF	1.9075
AA2-074	AA2-074	1.4742	LTF	1.4742
CBM-W1	CBM-W1	7.9073	Confirmed LTF	7.9073

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
169249909	314662	6S HERTFORD	DVP	314651	6WINFALL	DVP	1	Base Case	single	733.2	152.04	153.34	DC	9.58

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1246	80/20	2.1246

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.5151	80/20	0.5151
314582	3KELFORD	0.2329	80/20	0.2329
314589	3MURPHYS	0.0369	80/20	0.0369
314623	3WITAKRS	0.0937	80/20	0.0937
315126	1ROARAP2	0.5104	80/20	0.5104
315128	1ROARAP4	0.4870	80/20	0.4870
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.0994	80/20	4.0994
315136	1ROSEMG1	0.8630	80/20	0.8630
315137	1ROSEMS1	0.5351	80/20	0.5351
315138	1ROSEMG2	0.4045	80/20	0.4045
315139	1GASTONA	1.2433	80/20	1.2433
315141	1GASTONB	1.2433	80/20	1.2433
315292	1DOMTR78	2.6036	80/20	2.6036
315293	1DOMTR9	13.4660	80/20	13.4660
315294	1DOMTR10	16.5025	80/20	16.5025
315601	1CONETOE2SOL	0.8384	80/20	0.8384
315602	1HOLLOMANSOL	1.2173	80/20	1.2173
315606	3AA2-053SOLA	0.6446	80/20	0.6446
315607	3AA1-063SOLA	0.4717	80/20	0.4717
315611	6Z1-036WIND	4.3262	80/20	4.3262
315614	AA2-178 C	4.4654	80/20	4.4654
316020	AB2-059 C OP	0.7145	80/20	0.7145
316087	AB2-174 C	0.3326	80/20	0.3326
316140	AB2-099 C (Suspended)	0.3830	80/20	0.3830
920591	AA2-165 C	0.0691	80/20	0.0691
922922	AB1-081 C OP	0.6063	80/20	0.6063
923991	AB2-040 C O1	2.3140	80/20	2.3140
925121	AB2-169 C	1.6118	80/20	1.6118
925591	AC1-034 C	2.9335	80/20	2.9335
926070	AC1-086 C	8.8619	80/20	8.8619
926201	AC1-098 C	3.2208	80/20	3.2208
926211	AC1-099 C	1.0793	80/20	1.0793
927024	AC1-189 C	5.8761	80/20	5.8761
927145	AC1-208 C	4.1533	80/20	4.1533
932631	AC2-084 C	4.5914	80/20	4.5914
933991	AD1-023 C	25.2059	80/20	25.2059
934331	AD1-057 C O1	4.3272	80/20	4.3272
934521	AD1-076 C	124.5182	80/20	124.5182
936401	AD2-051 C O1	7.4382	80/20	7.4382
938221	AE1-035 C	0.3044	80/20	0.3044
940491	AE2-034 C	21.2276	80/20	21.2276
940571	AE2-044 C	1.9214	80/20	1.9214
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1247	80/20	0.1247
943171	AE2-346 C	0.9192	80/20	0.9192
944141	AF1-082	1.2352	80/20	1.2352
945711	AF1-236 C O1	232.3921	80/20	232.3921
957521	AF2-046 C	7.9171	80/20	7.9171
957531	AF2-047 C	50.4409	80/20	50.4409
957861	AF2-080 C	5.3369	80/20	5.3369

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959511	AF2-242 C	9.7380	80/20	9.7380
961671	AG1-007 C	0.7133	80/20	0.7133
961681	AG1-008 C	7.9330	80/20	7.9330
961931	AG1-036 C	0.7722	80/20	0.7722
961941	AG1-037 C	0.3283	80/20	0.3283
962331	AG1-082 C	1.3132	80/20	1.3132
962341	AG1-083 C	1.3132	80/20	1.3132
962351	AG1-084 C	1.2770	80/20	1.2770
962361	AG1-085 C	1.2770	80/20	1.2770
962571	AG1-106 C	2.4644	80/20	2.4644
964491	AG1-312 C O1	18.8485	80/20	18.8485
964501	AG1-313 C O2	2.4216	80/20	2.4216
964801	AG1-343 C	1.8896	80/20	1.8896
965291	AG1-394 C	0.6020	80/20	0.6020
965631	AG1-431	134.5428	80/20	134.5428
965691	AG1-437 C O1	16.4232	80/20	16.4232
965701	AG1-438 C O1	16.4232	80/20	16.4232
965711	AG1-439 C O1	15.0405	80/20	15.0405
965741	AG1-442 O1	9.5802	80/20	9.5802
965751	AG1-443 O1	9.5802	80/20	9.5802
965761	AG1-444 O1	8.0216	80/20	8.0216
966801	AG1-551 C	2.4609	80/20	2.4609
966811	AG1-552 C	0.8103	80/20	0.8103
966931	AG1-431A	101.0840	80/20	101.0840
WEC	WEC	0.1518	Confirmed LTF	0.1518
LGEE	LGEE	0.3098	Confirmed LTF	0.3098
CPL	CPL	1.7581	Confirmed LTF	1.7581
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.1477	Confirmed LTF	0.1477
TVA	TVA	1.2166	Confirmed LTF	1.2166
SIGE	SIGE	0.0886	Confirmed LTF	0.0886
CBM-S2	CBM-S2	18.9277	Confirmed LTF	18.9277
CBM-S1	CBM-S1	0.3044	Confirmed LTF	0.3044
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.5190	Confirmed LTF	1.5190
CBM-W1	CBM-W1	6.4071	Confirmed LTF	6.4071

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168832115	957820	AF2-076 TAP	DVP	314537	6SUFFOLK	DVP	1	DVP_P1-2: LN 2092	single	571.52	233.86	236.12	DC	12.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	5.3764	80/20	5.3764
313527	AB2-043 C	0.1797	80/20	0.1797

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	1.2166	80/20	1.2166
314572	3EMPORIA	0.2919	80/20	0.2919
314582	3KELFORD	0.6058	80/20	0.6058
314589	3MURPHYS	0.0945	80/20	0.0945
314623	3WITAKRS	0.2162	80/20	0.2162
314704	3LAWRENC	0.1658	80/20	0.1658
315115	1S HAMPT1	0.4948	80/20	0.4948
315126	1ROARAP2	1.2875	80/20	1.2875
315128	1ROARAP4	1.2286	80/20	1.2286
315131	1EDGECSA (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315132	1EDGECSB (Deactivation : 22/04/2019)	9.0045	80/20	9.0045
315136	1ROSEMG1	2.1445	80/20	2.1445
315137	1ROSEMS1	1.3298	80/20	1.3298
315138	1ROSEMG2	1.0051	80/20	1.0051
315139	1GASTONA	3.1370	80/20	3.1370
315141	1GASTONB	3.1370	80/20	3.1370
315158	1KERR 1	0.1949	80/20	0.1949
315159	1KERR 2	0.5458	80/20	0.5458
315160	1KERR 3	0.5458	80/20	0.5458
315161	1KERR 4	0.5458	80/20	0.5458
315162	1KERR 5	0.5458	80/20	0.5458
315163	1KERR 6	0.5458	80/20	0.5458
315164	1KERR 7	0.5458	80/20	0.5458
315292	1DOMTR78	2.6257	80/20	2.6257
315293	1DOMTR9	13.5803	80/20	13.5803
315294	1DOMTR10	16.6425	80/20	16.6425
315601	1CONETOESOL	1.7196	80/20	1.7196
315602	1HOLLOMAN SOL	3.2518	80/20	3.2518
315606	3AA2-053SOLA	1.6490	80/20	1.6490
315607	3AA1-063SOLA	1.1822	80/20	1.1822
315608	3AA2-088SOLA	0.6872	80/20	0.6872
315611	6Z1-036WIND	2.1843	80/20	2.1843
315614	AA2-178 C	3.1366	80/20	3.1366
316020	AB2-059 C OP	1.5978	80/20	1.5978
316087	AB2-174 C	0.8423	80/20	0.8423
316096	AB2-100 C1	0.5758	80/20	0.5758
316098	AB2-100 C2	0.5758	80/20	0.5758
316129	AC1-054 C	5.2403	80/20	5.2403
316131	AB2-060 C	0.5087	80/20	0.5087
316140	AB2-099 C (Suspended)	1.0074	80/20	1.0074
920591	AA2-165 C	0.1633	80/20	0.1633
922922	AB1-081 C OP	1.3557	80/20	1.3557
923991	AB2-040 C O1	5.8555	80/20	5.8555
924301	AB2-077 C O1 (Suspended)	0.7260	80/20	0.7260
924311	AB2-078 C O1 (Suspended)	0.7260	80/20	0.7260
924321	AB2-079 C O1 (Suspended)	0.7260	80/20	0.7260
925121	AB2-169 C	1.8885	80/20	1.8885
925591	AC1-034 C	6.5600	80/20	6.5600

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926070	AC1-086 C	22.3600	80/20	22.3600
926201	AC1-098 C	8.0404	80/20	8.0404
926211	AC1-099 C	2.6944	80/20	2.6944
927024	AC1-189 C	11.8698	80/20	11.8698
927145	AC1-208 C	10.1498	80/20	10.1498
932631	AC2-084 C	11.4618	80/20	11.4618
933991	AD1-023 C	28.1849	80/20	28.1849
934331	AD1-057 C O1	10.1494	80/20	10.1494
934521	AD1-076 C	113.8581	80/20	113.8581
936361	AD2-046 C O1	4.3133	80/20	4.3133
936401	AD2-051 C O1	19.8559	80/20	19.8559
936485	AD2-063 C	4.9383	80/20	4.9383
938221	AE1-035 C	0.8131	80/20	0.8131
939181	AE1-148 C	4.2098	80/20	4.2098
940481	AE2-033 C	4.4571	80/20	4.4571
940491	AE2-034 C	14.9108	80/20	14.9108
940571	AE2-044 C	4.2966	80/20	4.2966
940661	AE2-053 O1	1.5592	80/20	1.5592
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.3297	80/20	0.3297
942131	AE2-225 C	-1.0743	Adder	-1.26
942171	AE2-229 C	-0.8057	Adder	-0.95
942451	AE2-258	0.8499	80/20	0.8499
942471	AE2-260 C O1	8.2667	80/20	8.2667
943171	AE2-346 C	2.4178	80/20	2.4178
943611	AF1-032 C	-0.8773	Adder	-1.03
943911	AF1-059	8.1959	80/20	8.1959
944141	AF1-082	2.7621	80/20	2.7621
945711	AF1-236 C O1	163.2382	80/20	163.2382
946281	AF1-292 C	0.9810	80/20	0.9810
957491	AF2-043 C	-1.0743	Adder	-1.26
957521	AF2-046 C	20.4271	80/20	20.4271
957531	AF2-047 C	35.4310	80/20	35.4310
957821	AF2-076 C	25.4541	80/20	25.4541
957861	AF2-080 C	10.7806	80/20	10.7806
959511	AF2-242 C	13.0307	80/20	13.0307
960081	AF2-299 C	1.6533	80/20	1.6533
961671	AG1-007 C	1.4833	80/20	1.4833
961681	AG1-008 C	20.4680	80/20	20.4680
961931	AG1-036 C	2.0158	80/20	2.0158
961941	AG1-037 C	0.8635	80/20	0.8635
962271	AG1-075 C O2	4.6675	80/20	4.6675
962331	AG1-082 C	3.4540	80/20	3.4540
962341	AG1-083 C	3.4540	80/20	3.4540
962351	AG1-084 C	3.3758	80/20	3.3758
962361	AG1-085 C	3.3758	80/20	3.3758
962491	AG1-098 C O2	4.3132	80/20	4.3132
962571	AG1-106 C	6.2181	80/20	6.2181
963301	AG1-179 C	3.0738	80/20	3.0738
963311	AG1-180	1.4976	80/20	1.4976
964491	AG1-312 C O1	42.7392	80/20	42.7392
964501	AG1-313 C O2	6.2746	80/20	6.2746

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964801	AG1-343 C	4.7135	80/20	4.7135
964931	AG1-357 C O2	6.6084	80/20	6.6084
965291	AG1-394 C	1.4894	80/20	1.4894
965451	AG1-413 C O2	3.3660	80/20	3.3660
965591	AG1-427 C	3.9944	80/20	3.9944
965601	AG1-428 C O2	2.5661	80/20	2.5661
965631	AG1-431	94.5063	80/20	94.5063
965691	AG1-437 C O1	22.1316	80/20	22.1316
965701	AG1-438 C O1	22.1316	80/20	22.1316
965711	AG1-439 C O1	30.8475	80/20	30.8475
965721	AG1-440 C	4.2890	80/20	4.2890
965731	AG1-441 C	4.2890	80/20	4.2890
965741	AG1-442 O1	12.9101	80/20	12.9101
965751	AG1-443 O1	12.9101	80/20	12.9101
965761	AG1-444 O1	16.4520	80/20	16.4520
965771	AG1-445	2.4781	80/20	2.4781
965781	AG1-446	2.4781	80/20	2.4781
966621	AG1-532 C	0.8928	80/20	0.8928
966751	AG1-546 C	11.9536	80/20	11.9536
966801	AG1-551 C	3.8374	80/20	3.8374
966811	AG1-552 C	2.0442	80/20	2.0442
966931	AG1-431A	71.0040	80/20	71.0040
WEC	WEC	0.3330	Confirmed LTF	0.3330
LGEE	LGEE	0.6786	Confirmed LTF	0.6786
CPL	CPL	3.7381	Confirmed LTF	3.7381
CBM-W2	CBM-W2	14.1299	Confirmed LTF	14.1299
NY	NY	0.3019	Confirmed LTF	0.3019
TVA	TVA	2.6320	Confirmed LTF	2.6320
SIGE	SIGE	0.1896	Confirmed LTF	0.1896
CBM-S2	CBM-S2	40.4863	Confirmed LTF	40.4863
CBM-S1	CBM-S1	0.6593	Confirmed LTF	0.6593
MEC	MEC	1.9656	Confirmed LTF	1.9656
LAGN	LAGN	3.2847	Confirmed LTF	3.2847
AA2-074	AA2-074	2.4687	LTF	2.4687
CBM-W1	CBM-W1	14.0621	Confirmed LTF	14.0621

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174096896	964490	AG1-312 TAP	DVP	314569	6EARLEYS	DVP	1	DVP_P4-2: 2020T2144	breaker	699.0	315.41	319.64	DC	29.56

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314594	6PLYMOTH	0.4018	50/50	0.4018
315292	1DOMTR78	4.7108	50/50	4.7108
315293	1DOMTR9	24.3645	50/50	24.3645
315294	1DOMTR10	29.8585	50/50	29.8585

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315611	6Z1-036WIND	4.6122	50/50	4.6122
315614	AA2-178 C	6.6228	50/50	6.6228
916042	Z1-036 E (Suspended)	195.8679	50/50	195.8679
920692	AA2-178 E	17.9904	50/50	17.9904
925121	AB2-169 C	2.5772	50/50	2.5772
925122	AB2-169 E	14.6601	50/50	14.6601
933991	AD1-023 C	62.3605	50/50	62.3605
933992	AD1-023 E	33.9491	50/50	33.9491
934521	AD1-076 C	240.3967	50/50	240.3967
934522	AD1-076 E	122.4097	50/50	122.4097
940491	AE2-034 C	31.4832	50/50	31.4832
940492	AE2-034 E	13.4928	50/50	13.4928
945711	AF1-236 C O1	344.6661	50/50	344.6661
945712	AF1-236 E O1	212.8864	50/50	212.8864
957531	AF2-047 C	74.8101	50/50	74.8101
957532	AF2-047 E	37.6299	50/50	37.6299
959511	AF2-242 C	13.4820	50/50	13.4820
959512	AF2-242 E	10.4860	50/50	10.4860
964491	AG1-312 C O1	104.3930	50/50	104.3930
964492	AG1-312 E O1	26.0982	50/50	26.0982
965631	AG1-431	199.5435	50/50	199.5435
965691	AG1-437 C O1	50.6772	50/50	50.6772
965692	AG1-437 E O1	33.7848	50/50	33.7848
965701	AG1-438 C O1	50.6772	50/50	50.6772
965702	AG1-438 E O1	33.7848	50/50	33.7848
965741	AG1-442 O1	29.5617	50/50	29.5617
965751	AG1-443 O1	29.5617	50/50	29.5617
966801	AG1-551 C	2.7054	50/50	2.7054
966802	AG1-551 E	1.1594	50/50	1.1594
966931	AG1-431A	149.9200	50/50	149.9200
WEC	WEC	0.0435	Confirmed LTF	0.0435
LGEE	LGEE	0.0886	Confirmed LTF	0.0886
CPL	CPL	0.6463	Confirmed LTF	0.6463
CBM-W2	CBM-W2	2.0429	Confirmed LTF	2.0429
NY	NY	0.0686	Confirmed LTF	0.0686
TVA	TVA	0.3920	Confirmed LTF	0.3920
O-066	O-066	0.9489	Confirmed LTF	0.9489
SIGE	SIGE	0.0309	Confirmed LTF	0.0309
CBM-S2	CBM-S2	6.6503	Confirmed LTF	6.6503
CBM-S1	CBM-S1	0.0969	Confirmed LTF	0.0969
G-007	G-007	0.1491	Confirmed LTF	0.1491
MEC	MEC	0.2685	Confirmed LTF	0.2685
LAGN	LAGN	0.4917	Confirmed LTF	0.4917
CBM-W1	CBM-W1	1.8086	Confirmed LTF	1.8086

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174096897	965690	AG1-437 TAP	DVP	964490	AG1-312 TAP	DVP	1	DVP_P4-2: 2020T2144	breaker	699.0	296.77	301.0	DC	29.56

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314594	6PLYMOTH	0.4018	50/50	0.4018
315292	1DOMTR78	4.7108	50/50	4.7108
315293	1DOMTR9	24.3645	50/50	24.3645
315294	1DOMTR10	29.8585	50/50	29.8585
315611	6Z1-036WIND	4.6122	50/50	4.6122
315614	AA2-178 C	6.6228	50/50	6.6228
916042	Z1-036 E (Suspended)	195.8679	50/50	195.8679
920692	AA2-178 E	17.9904	50/50	17.9904
925121	AB2-169 C	2.5772	50/50	2.5772
925122	AB2-169 E	14.6601	50/50	14.6601
933991	AD1-023 C	62.3605	50/50	62.3605
933992	AD1-023 E	33.9491	50/50	33.9491
934521	AD1-076 C	240.3967	50/50	240.3967
934522	AD1-076 E	122.4097	50/50	122.4097
940491	AE2-034 C	31.4832	50/50	31.4832
940492	AE2-034 E	13.4928	50/50	13.4928
945711	AF1-236 C O1	344.6661	50/50	344.6661
945712	AF1-236 E O1	212.8864	50/50	212.8864
957531	AF2-047 C	74.8101	50/50	74.8101
957532	AF2-047 E	37.6299	50/50	37.6299
959511	AF2-242 C	13.4820	50/50	13.4820
959512	AF2-242 E	10.4860	50/50	10.4860
965631	AG1-431	199.5435	50/50	199.5435
965691	AG1-437 C O1	50.6772	50/50	50.6772
965692	AG1-437 E O1	33.7848	50/50	33.7848
965701	AG1-438 C O1	50.6772	50/50	50.6772
965702	AG1-438 E O1	33.7848	50/50	33.7848
965741	AG1-442 O1	29.5617	50/50	29.5617
965751	AG1-443 O1	29.5617	50/50	29.5617
966801	AG1-551 C	2.7054	50/50	2.7054
966802	AG1-551 E	1.1594	50/50	1.1594
966931	AG1-431A	149.9200	50/50	149.9200
WEC	WEC	0.0435	Confirmed LTF	0.0435
LGEE	LGEE	0.0886	Confirmed LTF	0.0886
CPL	CPL	0.6463	Confirmed LTF	0.6463
CBM-W2	CBM-W2	2.0429	Confirmed LTF	2.0429
NY	NY	0.0686	Confirmed LTF	0.0686
TVA	TVA	0.3920	Confirmed LTF	0.3920
O-066	O-066	0.9489	Confirmed LTF	0.9489
SIGE	SIGE	0.0309	Confirmed LTF	0.0309
CBM-S2	CBM-S2	6.6503	Confirmed LTF	6.6503
CBM-S1	CBM-S1	0.0969	Confirmed LTF	0.0969

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
G-007	G-007	0.1491	Confirmed LTF	0.1491
MEC	MEC	0.2685	Confirmed LTF	0.2685
LAGN	LAGN	0.4917	Confirmed LTF	0.4917
CBM-W1	CBM-W1	1.8086	Confirmed LTF	1.8086

13.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
DVP_P1-2: LN 246-B	CONTINGENCY 'DVP_P1-2: LN 246-B' OPEN BRANCH FROM BUS 957820 TO BUS 314575 CKT 1 /* AF2-076 230.00 - 6NUCO TP 230.00 OPEN BRANCH FROM BUS 314569 TO BUS 314575 CKT 1 /* 6EARLEYS 230.00 - 6NUCO TP 230.00 OPEN BRANCH FROM BUS 314575 TO BUS 314590 CKT 1 /* 6NUCO TP 230.00 - 6NUCOR 230.00 OPEN BUS 314575 /* ISLAND: 6NUCO TP 230.00 OPEN BUS 314590 /* ISLAND: 6NUCOR 230.00 END
DVP_P4-2: H2T2014	CONTINGENCY 'DVP_P4-2: H2T2014' / 1074 OPEN BRANCH FROM BUS 313857 TO BUS 314569 CKT 1 / 313857 6WINDSORDP 230 314569 6EARLEYS 230 1 OPEN BRANCH FROM BUS 313857 TO BUS 314574 CKT 1 / 313857 6WINDSORDP 230 314574 6EVERETS 230 1 OPEN BRANCH FROM BUS 314552 TO BUS 313857 CKT 1 / 314552 3WINDSORDP 115 313857 6WINDSORDP 230 1 OPEN BRANCH FROM BUS 314573 TO BUS 314574 CKT 1 / 314573 3EVERETS 115 314574 6EVERETS 230 1 END
DVP_P4-2: 201262	CONTINGENCY 'DVP_P4-2: 201262' / 173 OPEN BRANCH FROM BUS 314569 TO BUS 936400 CKT 1 / 314569 6EARLEYS 230 936400 AD2-051 TAP 230 1 OPEN BRANCH FROM BUS 314568 TO BUS 314569 CKT 1 / 314568 3EARLEYS 115 314569 6EARLEYS 230 1 END
DVP_P1-2: LN 218	CONTINGENCY 'DVP_P1-2: LN 218' OPEN BRANCH FROM BUS 304451 TO BUS 314574 CKT 1 /* 6GREENVILLE T230.00 - 6EVERETS 230.00 END
DVP_P4-2: H4T2014	CONTINGENCY 'DVP_P4-2: H4T2014' / 1211 OPEN BRANCH FROM BUS 313857 TO BUS 314569 CKT 1 / 313857 6WINDSORDP 230 314569 6EARLEYS 230 1 OPEN BRANCH FROM BUS 313857 TO BUS 314574 CKT 1 / 313857 6WINDSORDP 230 314574 6EVERETS 230 1 OPEN BRANCH FROM BUS 314552 TO BUS 313857 CKT 1 / 314552 3WINDSORDP 115 313857 6WINDSORDP 230 1 OPEN BRANCH FROM BUS 314573 TO BUS 314574 CKT 2 / 314573 3EVERETS 115 314574 6EVERETS 230 2 REMOVE SWSHUNT FROM BUS 314574 /* 314574 6EVERETS 230 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 2092	CONTINGENCY 'DVP_P1-2: LN 2092' OPEN BRANCH FROM BUS 313714 TO BUS 314662 CKT 1 /* 6PERQUIMANS 230.00 - 6S HERTFORD 230.00 OPEN BRANCH FROM BUS 314651 TO BUS 314662 CKT 1 /* 6WINFALL 230.00 - 6S HERTFORD 230.00 OPEN BUS 314662 /* ISLAND: 6S HERTFORD 230.00 END
DVP_P1-2: LN 2034-A	CONTINGENCY 'DVP_P1-2: LN 2034-A' / 924 OPEN BRANCH FROM BUS 314569 TO BUS 964490 CKT 1 / 314569 6EARLEYS 230 964490 AG1-312 TAP 230 1 END
DVP_P1-2: LN 2020	CONTINGENCY 'DVP_P1-2: LN 2020' / 1110 OPEN BRANCH FROM BUS 313851 TO BUS 314638 CKT 1 / 313851 6ECITYDP2 230 314638 6ELIZ CT 230 1 OPEN BRANCH FROM BUS 313851 TO BUS 314639 CKT 1 / 313851 6ECITYDP2 230 314639 6TANGLEW 230 1 OPEN BRANCH FROM BUS 314639 TO BUS 314651 CKT 1 / 314639 6TANGLEW 230 314651 6WINFALL 230 1 OPEN BRANCH FROM BUS 314639 TO BUS 917122 CKT 1 / 314639 6TANGLEW 230 917122 Z2-027 E 230 1 END
DVP_P4-2: 201462	CONTINGENCY 'DVP_P4-2: 201462' / 2849 OPEN BRANCH FROM BUS 313857 TO BUS 314569 CKT 1 / 313857 6WINDSORDP 230 314569 6EARLEYS 230 1 OPEN BRANCH FROM BUS 313857 TO BUS 314574 CKT 1 / 313857 6WINDSORDP 230 314574 6EVERETS 230 1 OPEN BRANCH FROM BUS 314552 TO BUS 313857 CKT 1 / 314552 3WINDSORDP 115 313857 6WINDSORDP 230 1 OPEN BRANCH FROM BUS 314568 TO BUS 314569 CKT 2 / 314568 3EARLEYS 115 314569 6EARLEYS 230 2 END
DVP_P4-2: 246T247	CONTINGENCY 'DVP_P4-2: 246T247' /* SUFFOLK 230 KV OPEN BRANCH FROM BUS 314537 TO BUS 957820 CKT 1 /* 6SUFFOLK 230.00 - AF2-076 TAP 230.00 OPEN BRANCH FROM BUS 314537 TO BUS 966490 CKT 1 /* 6SUFFOLK 230.00 - AG1-518 TAP 230.00 END
DVP_P4-2: 203462	CONTINGENCY 'DVP_P4-2: 203462' / 1009 OPEN BRANCH FROM BUS 314569 TO BUS 964490 CKT 1 / 314569 6EARLEYS 230 964490 AG1-312 TAP 230 1 OPEN BRANCH FROM BUS 314568 TO BUS 314569 CKT 2 / 314568 3EARLEYS 115 314569 6EARLEYS 230 2 END

Contingency Name	Contingency Definition
Base Case	
DVP_P1-2: LN 2167	CONTINGENCY 'DVP_P1-2: LN 2167' OPEN BRANCH FROM BUS 313845 TO BUS 314564 CKT 1 /* 6HATHAWAY 230.00 - 6EDGECOM 230.00 END
DVP_P1-2: LN 247-B	CONTINGENCY 'DVP_P1-2: LN 247-B' OPEN BRANCH FROM BUS 314537 TO BUS 966490 CKT 1 /* 6SUFFOLK 230.00 - AG1- 518 TAP230.00 END
DVP_P4-2: 2020T2144	CONTINGENCY 'DVP_P4-2: 2020T2144' /* WINFALL 230 KV OPEN BRANCH FROM BUS 313851 TO BUS 314638 CKT 1 /* 6ECITYDP2 230.00 - 6ELIZ CT 230.00 OPEN BRANCH FROM BUS 313851 TO BUS 314639 CKT 1 /* 6ECITYDP2 230.00 - 6TANGLEW 230.00 OPEN BRANCH FROM BUS 314639 TO BUS 314651 CKT 1 /* 6TANGLEW 230.00 - 6WINFALL 230.00 OPEN BUS 313851 /* ISLAND: 6ECITYDP2 230.00 OPEN BUS 314639 /* ISLAND: 6TANGLEW 230.00 OPEN BUS 917122 /* ISLAND: Z2-027 E 230.00 OPEN BRANCH FROM BUS 313713 TO BUS 314651 CKT 1 /* 6SWAMP 230.00 - 6WINFALL 230.00 END
DVP_P7-1: LN 2058-2181	CONTINGENCY 'DVP_P7-1: LN 2058-2181' /* . OPEN BRANCH FROM BUS 304222 TO BUS 313845 CKT 1 /* 6ROCKYMT230T230.00 - 6HATHAWAY 230.00 OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 2 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 OPEN BUS 304226 /* ISLAND: 6PA-RMOUNT#4115.00 OPEN BRANCH FROM BUS 304226 TO BUS 314591 CKT 1 /* 6PA-RMOUNT#4230.00 - 6NASH 230.00 OPEN BRANCH FROM BUS 313845 TO BUS 314591 CKT 1 /* 6HATHAWAY 230.00 - 6NASH 230.00 OPEN BUS 314591 /* ISLAND: 6NASH 230.00 END
DVP_P1-2: LN 238-B	CONTINGENCY 'DVP_P1-2: LN 238-B' / 796 OPEN BRANCH FROM BUS 314563 TO BUS 940480 CKT 1 / 314563 6CLUBHSE 230 940480 AE2-033 TAP 230 1 OPEN BRANCH FROM BUS 314562 TO BUS 314563 CKT 1 / 314562 3CLUBHSE 115 314563 6CLUBHSE 230 1 END

14 Affected Systems

14.1 TVA

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

14.2 Duke Energy Progress

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

15 Attachment 1: One Line Diagram

