



**Generation Interconnection
Feasibility Study Report
for
Queue Project AF2-046
TUNIS-MAPLETON 115 KV
99.8 MW Capacity / 150 MW Energy**

July 2020

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1 Introduction

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

2 Preface

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

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

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

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

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

3 General

The Interconnection Customer (IC), has proposed a Solar generating facility located in Hertford County, North Carolina. The installed facilities will have a total capability of 150 MW with 99.8 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 01, 2022. This study does not imply a TO commitment to this in-service date.

Queue Number	AF2-046
Project Name	TUNIS-MAPLETON 115 KV
State	North Carolina
County	Hertford
Transmission Owner	Dominion
MFO	150
MWE	150
MWC	99.8
Fuel	Solar
Basecase Study Year	2023

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

AF2-046 will interconnect with the Dominion transmission system. The primary POI is a single line tap between Tunis 115 kV substation and Mapleton 115 kV substation. The IC is responsible for securing right-of-way, permits and constructing the proposed attachment line from the storage facility site to the proposed new substation. Attachment 1 shows a one-line diagram of the proposed interconnection facilities. The IC may not install any facilities on Dominion's right-of-way without first obtaining the necessary approval from Dominion Energy.

There is no secondary point of interconnection specified for AF2-046.

5 Cost Summary

The AF2-046 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$ 8,800,000
Total System Network Upgrade Costs	\$ 1,184,416,000
Total Costs	\$ 1,193,216,000

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 88-129. If at a future date it is determined that the Federal Income Tax Gross charge is required, the Transmission Owner shall be reimbursed by the Interconnection Customer for such taxes.

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

6 Transmission Owner Scope of Work

Dominion assessed the impact of the proposed Queue Project AF2-046 was evaluated as a 99.8 MW Capacity (150.0 MW Energy) injection at a single line tap between Tunis 115 kV substation and Mapleton 115 kV substation in the Dominion Transmission System, for compliance with NERC Reliability Criteria on Dominion Transmission System. The system was assessed using the summer 2023 AF2 case provided to Dominion by PJM. When performing a generation analysis, Dominion's main analysis will be load flow study results under single contingency (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.

The required Attachment Facilities, Direct Connection and Non-Direct Connection work for the interconnection of the AF2-046 generation project to the Dominion Transmission System is detailed in the following sections. The associated one-line with the generation project attachment facilities and primary direct and non-direct connection are 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 phases. Further note that the cost estimate data contained in this document should be considered high level estimates since it was produced without a detailed engineering review. The applicant will be responsible for the actual cost of construction. ITO herein reserves the right to return to any issues in this document and, upon appropriate justification, request additional monies to complete any reinforcements to the transmission systems. The total physical interconnection costs is given in the table below:

Description	Total Cost
Attachment Facilities	\$ 1,700,000
New 115 kV three breaker ring-bus substation	\$ 5,500,000
Re-arrange 115 kV line to interconnect new substation	\$ 1,600,000

Total Physical Interconnection Costs	\$ 8,800,000
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To accommodate the proposed AF2-046 Project, Dominion Energy will install one span of overhead 115 kV line to the point of interconnection (“POI”) including 115 kV interconnection metering, build a new three breaker 115 kV substation, and re-arrange the existing section of the line between Tunis and Mapleton Substations to allow for the proposed interconnection.

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

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

8 Transmission Owner Analysis

8.1 Power Flow Analysis

PJM performed a power flow analysis of the transmission system using a 2023 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 noted above. This includes over/under voltage protection, over/under frequency protection, and zero sequence voltage protection relays.
3. The purchase and installation of supervisory control and data acquisition ("SCADA") equipment to provide information in a compatible format to the Dominion Transmission System Control Center.
4. Compliance with the Dominion and PJM generator power factor and voltage control requirements.

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

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

9.3 Power Factor Requirements

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

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Back panel temperature (Fahrenheit)
- Irradiance (Watts/meter²)
- Ambient air temperature (Fahrenheit) - (Accepted, not required)
- Wind speed (meters/second) – (Accepted, not required)
- Wind direction (decimal degrees from true north) – (Accepted, not required)

10.3 Interconnected Transmission Owner Requirements

See Section 3.4.6 “Metering and telecommunications” of Dominion’s “Dominion’s Facility Interconnection Requirements” document located at: <https://www.dominionenergy.com/company/moving-energy/electric-transmission-access>.

11 Summer Peak - Load Flow Analysis

The Queue Project AF2-046 was evaluated as a 150.0 MW (Capacity 99.8 MW) injection tapping the Mapleton DP to Tunis 115 kV line in the Dominion area. Project AF2-046 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-046 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADIN G %	POST PROJE CT LOADIN G %	AC/D C	MW IMPAC T
97889826	313714	6PERQUIMANS	230.0	DVP	314662	6SHERTFORD	230.0	DVP	1	Base Case	single	733.200012207	99.43	100.51	DC	7.92
97113706	313854	3CONSLDL	115.0	DVP	314554	3BTLEBRO	115.0	DVP	1	DVP_P 1-2: LN 2056-A	single	165.440002441	99.62	104.3	DC	7.74
97113707	313854	3CONSLDL	115.0	DVP	314554	3BTLEBRO	115.0	DVP	1	DVP_P 1-2: LN 2056-B	single	165.440002441	97.5	102.18	DC	7.74
97889911	313885	6WALBMRL	230.0	DVP	313714	6PERQUIMANS	230.0	DVP	1	DVP_P 1-2: LN 218	single	733.200012207	99.38	100.64	DC	9.24
97890494	314301	6HARR205	230.0	DVP	314346	6TYLER	230.0	DVP	1	DVP_P 1-2: LN 563	single	441.799987793	99.24	100.54	DC	5.74
97890011	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	Base Case	single	678.679992676	99.61	101.36	DC	15.2
97889802	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	Base Case	single	571.520019531	97.18	100.11	DC	16.89
96828141	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P 1-2: LN 2092	single	478.0	97.78	100.03	DC	10.76
97113697	314623	3WITAKRS	115.0	DVP	313854	3CONSLDL	115.0	DVP	1	DVP_P 1-2: LN 2056-A	single	165.440002441	99.68	104.36	DC	7.74
97113698	314623	3WITAKRS	115.0	DVP	313854	3CONSLDL	115.0	DVP	1	DVP_P 1-2: LN 2056-B	single	165.440002441	97.5	102.18	DC	7.74
97889923	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	DVP_P 1-2: LN 218	single	733.200012207	99.38	100.64	DC	9.24

11.2 Multiple Facility Contingency

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

None

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADIN G %	POST PROJE CT LOADIN G %	AC/D C	MW IMPAC T
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978898 21	3137 14	6PERQUIMA NS	230. 0	DVP	3146 62	6S HERTFORD	230. 0	DVP	1	DVP_P1- 2: LN 246	single	733.200012 207	123.47	125.24	DC	12.99
978898 25	3137 14	6PERQUIMA NS	230. 0	DVP	3146 62	6S HERTFORD	230. 0	DVP	1	DVP_P1- 2: LN 218	single	733.200012 207	104.47	105.73	DC	9.24
978900 17	3138 45	6HATHAWA Y	230. 0	DVP	3145 91	6NASH	230. 0	DVP	1	DVP_P1- 2: LN 2058	single	449.320007 324	107.34	109.74	DC	10.78
977080 69	3138 51	6ECITYDP2	230. 0	DVP	3146 38	6ELIZ CT	230. 0	DVP	1	DVP_P4- 2: 246T247	break er	1204.0	137.61	139.03	DC	17.0
978899 08	3138 85	6WALBMRL	230. 0	DVP	3137 14	6PERQUIMA NS	230. 0	DVP	1	DVP_P1- 2: LN 246	single	733.200012 207	118.38	120.15	DC	12.99
978898 82	3142 03	6MACKEYS	230. 0	DVP	3146 37	6EDENTON	230. 0	DVP	1	DVP_P1- 2: LN 246	single	731.320007 324	122.5	124.27	DC	12.99
978898 85	3142 03	6MACKEYS	230. 0	DVP	3146 37	6EDENTON	230. 0	DVP	1	DVP_P1- 2: LN 218	single	731.320007 324	103.45	104.72	DC	9.24
978898 52	3142 09	6SKIFF CREEK	230. 0	DVP	3143 86	6KINGS M	230. 0	DVP	1	DVP_P1- 2: LN 567	single	441.799987 793	145.31	145.89	DC	5.59
977080 30	3142 82	6CARSON	230. 0	DVP	3142 85	6CHRL249	230. 0	DVP	1	DVP_P4- 2: 562T563	break er	684.0	169.42	170.13	DC	10.6
978900 42	3142 82	6CARSON	230. 0	DVP	3142 85	6CHRL249	230. 0	DVP	1	DVP_P1- 2: LN 563	single	559.299987 793	142.26	143.5	DC	6.97
978900 44	3142 82	6CARSON	230. 0	DVP	3142 85	6CHRL249	230. 0	DVP	1	DVP_P1- 2: LN 2002	single	559.299987 793	124.49	124.61	DC	6.4
977080 40	3142 85	6CHRL249	230. 0	DVP	3143 16	6LOCKS	230. 0	DVP	1	DVP_P4- 2: 562T563	break er	684.0	166.34	167.04	DC	10.6
978900 64	3142 85	6CHRL249	230. 0	DVP	3143 16	6LOCKS	230. 0	DVP	1	DVP_P1- 2: LN 563	single	559.299987 793	138.49	139.73	DC	6.97
978900 66	3142 85	6CHRL249	230. 0	DVP	3143 16	6LOCKS	230. 0	DVP	1	DVP_P1- 2: LN 2002	single	559.299987 793	120.71	120.84	DC	6.4
977080 79	3142 87	6CHESTF B	230. 0	DVP	3142 76	6BASIN	230. 0	DVP	1	DVP_P4- 2: 562T563	break er	812.0	140.45	141.01	DC	10.07
978900 22	3142 87	6CHESTF B	230. 0	DVP	3142 76	6BASIN	230. 0	DVP	1	DVP_P1- 2: LN 563	single	663.640014 648	144.61	145.07	DC	6.66
978898 93	3142 96	6PENNIMA N	230. 0	DVP	3144 15	6WALR209	230. 0	DVP	1	DVP_P1- 2: LN 567	single	441.799987 793	133.9	134.48	DC	5.59
977080 89	3142 99	6HARROWG	230. 0	DVP	3142 63	6TYLER1	230. 0	DVP	1	DVP_P4- 2: 562T563	break er	541.0	141.43	142.2	DC	9.24
977080 90	3142 99	6HARROWG	230. 0	DVP	3142 63	6TYLER1	230. 0	DVP	1	DVP_P4- 2: 24972-4	break er	541.0	133.36	134.71	DC	16.25
978902 57	3142 99	6HARROWG	230. 0	DVP	3142 63	6TYLER1	230. 0	DVP	1	DVP_P1- 2: LN 563	single	441.799987 793	116.73	118.1	DC	6.09
977080 99	3143 16	6LOCKS	230. 0	DVP	3143 01	6HARR205	230. 0	DVP	1	DVP_P4- 2: 562T563	break er	541.0	138.15	138.88	DC	8.71
978902 76	3143 16	6LOCKS	230. 0	DVP	3143 01	6HARR205	230. 0	DVP	1	DVP_P1- 2: LN 563	single	441.799987 793	112.76	114.06	DC	5.74
977080 84	3143 31	6POE	230. 0	DVP	3142 99	6HARROWG	230. 0	DVP	1	DVP_P4- 2: 562T563	break er	541.0	141.45	142.22	DC	9.24
977080 85	3143 31	6POE	230. 0	DVP	3142 99	6HARROWG	230. 0	DVP	1	DVP_P4- 2: 24972-4	break er	541.0	133.37	134.73	DC	16.25

97890252	314331	6POE	230.0	DVP	314299	6HARROWG	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	116.75	118.12	DC	6.09
97889873	314386	6KINGS M	230.0	DVP	314296	6PENNINGMAN	230.0	DVP	1	DVP_P1-2: LN 567	single	441.799987793	137.55	138.12	DC	5.59
97889961	314415	6WALR209	230.0	DVP	314391	6LIGH209	230.0	DVP	1	DVP_P1-2: LN 567	single	441.799987793	118.78	119.36	DC	5.59
97890006	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	DVP_P1-2: LN 246	single	678.679992676	121.89	124.59	DC	18.87
97890007	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	DVP_P1-2: LN 2056-A	single	678.679992676	105.33	107.89	DC	17.38
96828131	314554	3BTLEBRO	115.0	DVP	304223	3ROCKYMT1 15T	115.0	CPL E	1	DVP_P1-2: LN 1014	single	93.0	126.25	132.58	DC	5.89
96828559	314554	3BTLEBRO	115.0	DVP	304223	3ROCKYMT1 15T	115.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	93.0	438.09	444.16	DC	12.53
97708121	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P4-2: 246T247	breaker	459.0	118.6	126.01	DC	34.01
97708122	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P4-2: 218T2160	breaker	459.0	112.1	119.25	DC	32.83
97708123	314561	6CAROLNA	230.0	DVP	314583	6LAKEVEW	230.0	DVP	1	DVP_P4-2: 2020T2144	breaker	459.0	108.7	114.99	DC	28.88
97890056	314563	6CLUBHSE	230.0	DVP	940480	AE2-033 TAP	230.0	DVP	1	DVP_P1-2: LN 246	single	678.679992676	106.84	109.63	DC	18.87
97889796	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	153.5	157.04	DC	20.41
97889797	314569	6EARLEYS	230.0	DVP	314575	6NUCO TP	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	153.17	156.72	DC	20.41
96828564	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	478.0	168.24	172.17	DC	18.76
97889808	314575	6NUCO TP	230.0	DVP	957790	AF2-073 TAP	230.0	DVP	1	DVP_P1-2: LN 2092	single	571.520019531	147.09	150.64	DC	20.41
97889809	314575	6NUCO TP	230.0	DVP	957790	AF2-073 TAP	230.0	DVP	1	DVP_P1-2: LN 2131	single	571.520019531	146.78	150.33	DC	20.41
97890287	314579	6HORNRTN	230.0	DVP	934330	AD1-057 TAP	230.0	DVP	1	DVP_P1-2: LN 238-A	single	441.799987793	103.22	105.82	DC	11.46
97890288	314579	6HORNRTN	230.0	DVP	934330	AD1-057 TAP	230.0	DVP	1	314435 6SAPONY 230 940480 AE2-033 TAP 230 1	single	441.799987793	103.18	105.77	DC	11.46
97889968	314583	6LAKEVEW	230.0	DVP	924510	AB2-100 TAP	230.0	DVP	1	DVP_P1-2: LN 246	single	375.059997559	132.38	136.23	DC	14.45
97889969	314583	6LAKEVEW	230.0	DVP	924510	AB2-100 TAP	230.0	DVP	1	314572 3EMPOR IA 115 925170 AB2-174 TAP 115 1	single	375.059997559	123.71	127.51	DC	14.27

97889973	314583	6LAKEVEW	230.0	DVP	924510	AB2-100 TAP	230.0	DVP	1	Base Case	single	375.059997559	103.61	106.55	DC	11.03
97889920	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	DVP_P1-2: LN 246	single	733.200012207	118.4	120.16	DC	12.99
97707945	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	229.4	231.83	DC	16.99
97889845	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBRO	230.0	DVP	1	DVP_P1-2: LN 247	single	571.520019531	113.08	114.33	DC	7.12
97708064	314639	6TANGLEW	230.0	DVP	313851	6ECITYDP2	230.0	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	139.59	141.0	DC	17.0
97708252	314645	6SLIGO L269	230.0	DVP	314466	6FENTRES	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	101.98	102.51	DC	8.28
97708059	314651	6WINFALL	230.0	DVP	314639	6TANGLEW	230.0	DVP	1	DVP_P4-2: 246T247	breaker	1163.0	147.0	148.46	DC	17.01
97889833	314662	6S HERTFORD	230.0	DVP	314651	6WINFALL	230.0	DVP	1	DVP_P1-2: LN 246	single	733.200012207	121.67	123.43	DC	12.99
97889836	314662	6S HERTFORD	230.0	DVP	314651	6WINFALL	230.0	DVP	1	DVP_P1-2: LN 218	single	733.200012207	102.67	103.93	DC	9.24
96828178	314914	8MDLTHAN	500.0	DVP	314918	8NO ANNA	500.0	DVP	1	DVP_P1-2: LN 574	single	2442.12011719	149.88	149.95	DC	25.47
97889862	924510	AB2-100 TAP	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	DVP_P1-2: LN 246	single	375.059997559	148.77	152.61	DC	14.42
97889863	924510	AB2-100 TAP	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	3145723EMPORIA 115 925170 AB2-174 TAP 115 1	single	375.059997559	139.95	143.75	DC	14.24
97889867	924510	AB2-100 TAP	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	single	375.059997559	119.94	122.87	DC	11.0
97890171	934330	AD1-057 TAP	230.0	DVP	313845	6HATHAWAY	230.0	DVP	1	DVP_P1-2: LN 238-A	single	441.799987793	111.62	114.22	DC	11.46
97890172	934330	AD1-057 TAP	230.0	DVP	313845	6HATHAWAY	230.0	DVP	1	3144356SAPONY 230 940480 AE2-033 TAP 230 1	single	441.799987793	111.58	114.17	DC	11.46
97708241	938530	AE1-072 TAP	230.0	DVP	314645	6SLIGO L269	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	103.12	103.66	DC	8.28
97708139	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P4-2: 201262	breaker	830.0	123.31	124.54	DC	22.53
97708140	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P4-2: 2012T20 14	breaker	830.0	122.17	123.22	DC	19.26
97890129	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P1-2: LN 2056-A	single	678.679992676	107.59	110.16	DC	17.39
97890130	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P1-2: LN 2012-B	single	678.679992676	108.96	109.64	DC	13.61
97890134	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	Base Case	single	678.679992676	101.89	103.63	DC	15.21
98537128	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P7-1: LN 2058-2181	tower	830.0	126.8	128.2	DC	25.64

985371 32	9404 80	AE2-033 TAP	230. 0	DVP	3144 35	6SAPONY	230. 0	DVP	1	DVP_P7- 1: LN 54- 2012-B	tower	830.0	121.37	122.4	DC	18.94
978897 84	9577 90	AF2-073 TAP	230. 0	DVP	9578 20	AF2-076 TAP	230. 0	DVP	1	DVP_P1- 2: LN 2092	single	571.520019 531	147.23	150.79	DC	20.41
978897 85	9577 90	AF2-073 TAP	230. 0	DVP	9578 20	AF2-076 TAP	230. 0	DVP	1	DVP_P1- 2: LN 2131	single	571.520019 531	146.26	149.82	DC	20.41
978897 72	9578 20	AF2-076 TAP	230. 0	DVP	3145 37	6SUFFOLK	230. 0	DVP	1	DVP_P1- 2: LN 2092	single	571.520019 531	147.5	151.06	DC	20.41
978897 73	9578 20	AF2-076 TAP	230. 0	DVP	3145 37	6SUFFOLK	230. 0	DVP	1	DVP_P1- 2: LN 2131	single	571.520019 531	146.8	150.36	DC	20.41

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 PROJEC T LOADI NG %	POST PROJEC T LOADI NG %	AC/D C	MW IMPA CT
978903 75	3137 01	6CHINQUAP IN	230. 0	DVP	3146 09	6TARBORO	230. 0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987 793	103.06	104.08	DC	9.93
978898 20	3137 14	6PERQUIMA NS	230. 0	DVP	3146 62	6S HERTFORD	230. 0	DVP	1	Base Case	operati on	733.200012 207	195.32	196.05	DC	11.91
971137 42	3137 19	3CHESTNUT	115. 0	DVP	3146 23	3WITAKRS	115. 0	DVP	1	DVP_P 1-2: LN 2056- A	operati on	165.440002 441	130.05	133.22	DC	11.64
971137 47	3137 19	3CHESTNUT	115. 0	DVP	3146 23	3WITAKRS	115. 0	DVP	1	Base Case	operati on	165.440002 441	97.63	100.37	DC	10.07
971138 23	3137 23	3PECAN	115. 0	DVP	3142 59	3CAROL56_1	115. 0	DVP	1	DVP_P 1-2: LN 68	operati on	224.660003 662	97.42	124.72	DC	61.32
968281 88	3138 45	6HATHAWA Y	230. 0	DVP	3042 22	6ROCKYMT2 30T	230. 0	CPL E	1	DVP_P 1-2: LN 2181	operati on	478.0	134.23	135.79	DC	16.63
978900 12	3138 45	6HATHAWA Y	230. 0	DVP	3145 91	6NASH	230. 0	DVP	1	DVP_P 1-2: LN 2058	operati on	449.320007 324	148.62	150.25	DC	16.21
971137 00	3138 54	3CONSLDL	115. 0	DVP	3145 54	3BTLEBRO	115. 0	DVP	1	DVP_P 1-2: LN 2056- A	operati on	165.440002 441	135.56	138.73	DC	11.64
971137 05	3138 54	3CONSLDL	115. 0	DVP	3145 54	3BTLEBRO	115. 0	DVP	1	Base Case	operati on	165.440002 441	107.79	110.53	DC	10.07
971138 49	3138 58	3SO JUSTICE	115. 0	DVP	3145 77	3COX DP	115. 0	DVP	1	DVP_P 1-2: LN 2056- A	operati on	165.440002 441	99.94	103.12	DC	11.68
978899 07	3138 85	6WALBMRL	230. 0	DVP	3137 14	6PERQUIMA NS	230. 0	DVP	1	Base Case	operati on	733.200012 207	165.19	165.92	DC	11.91

978898 81	3142 03	6MACKEYS	230. 0	DVP	3146 37	6EDENTON	230. 0	DVP	1	Base Case	operati on	731.320007 324	169.43	170.16	DC	11.91
978904 87	3142 25	6CHARCTY	230. 0	DVP	3142 27	6LAKESIDE	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	984.179992 676	110.37	110.52	DC	9.95
971138 21	3142 59	3CAROL56_ 1	115. 0	DVP	3145 59	3CAROLNA	115. 0	DVP	Z1	DVP_P 1-2: LN 68	operati on	224.660003 662	97.42	124.72	DC	61.32
978900 40	3142 82	6CARSON	230. 0	DVP	3142 85	6CHRL249	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	559.299987 793	164.8	165.65	DC	10.48
978904 13	3142 82	6CARSON	230. 0	DVP	3143 31	6POE	230. 0	DVP	1	DVP_P 1-2: LN 249	operati on	678.679992 676	118.57	119.11	DC	8.13
978900 62	3142 85	6CHRL249	230. 0	DVP	3143 16	6LOCKS	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	559.299987 793	161.03	161.87	DC	10.48
978900 21	3142 87	6CHESTF B	230. 0	DVP	3142 76	6BASIN	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	663.640014 648	171.81	172.07	DC	10.02
978904 71	3142 87	6CHESTF B	230. 0	DVP	3142 25	6CHARCTY	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	984.179992 676	114.03	114.17	DC	9.95
978902 55	3142 99	6HARROWG	230. 0	DVP	3142 63	6TYLER1	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	441.799987 793	142.27	143.21	DC	9.16
978902 75	3143 16	6LOCKS	230. 0	DVP	3143 01	6HARR205	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	441.799987 793	133.12	134.0	DC	8.62
978902 50	3143 31	6POE	230. 0	DVP	3142 99	6HARROWG	230. 0	DVP	1	DVP_P 1-2: LN 563	operati on	441.799987 793	142.3	143.23	DC	9.16
978900 00	3144 35	6SAPONY	230. 0	DVP	3142 82	6CARSON	230. 0	DVP	1	DVP_P 1-2: LN 246	operati on	678.679992 676	176.22	178.12	DC	28.35
978900 05	3144 35	6SAPONY	230. 0	DVP	3142 82	6CARSON	230. 0	DVP	1	Base Case	operati on	678.679992 676	139.92	141.45	DC	22.85
971138 35	3145 24	3FRNKLN	115. 0	DVP	3145 39	3UNCAMP	115. 0	DVP	1	DVP_P 1-2: LN 238-B	operati on	224.660003 662	105.06	121.37	DC	36.65
971138 86	3145 27	3HOLLAND	115. 0	DVP	3145 36	3SUFFOLK	115. 0	DVP	1	DVP_P 1-2: LN 1010	operati on	269.779998 779	88.79	109.81	DC	56.7
971137 72	3145 39	3UNCAMP	115. 0	DVP	3145 27	3HOLLAND	115. 0	DVP	1	DVP_P 1-2: LN 1010	operati on	224.660003 662	114.1	139.34	DC	56.7
971137 77	3145 39	3UNCAMP	115. 0	DVP	3145 27	3HOLLAND	115. 0	DVP	1	Base Case	operati on	224.660003 662	93.94	109.49	DC	34.93
971136 79	3145 51	3AHOSKIE	115. 0	DVP	3145 68	3EARLEYS	115. 0	DVP	1	DVP_P 1-2: LN 68	operati on	141.0	87.93	150.75	DC	88.57
978901 58	3145 61	6CAROLNA	230. 0	DVP	3145 83	6LAKEVEW	230. 0	DVP	1	DVP_P 1-2: LN 2092	operati on	375.059997 559	132.7	140.38	DC	28.82
978900 50	3145 63	6CLUBHSE	230. 0	DVP	9404 80	AE2-033 TAP	230. 0	DVP	1	DVP_P 1-2: LN 246	operati on	678.679992 676	157.22	159.11	DC	28.37
978900 55	3145 63	6CLUBHSE	230. 0	DVP	9404 80	AE2-033 TAP	230. 0	DVP	1	Base Case	operati on	678.679992 676	122.42	123.95	DC	22.86
978897 91	3145 69	6EARLEYS	230. 0	DVP	3145 75	6NUCO TP	230. 0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019 531	256.9	262.27	DC	30.67
978897 98	3145 69	6EARLEYS	230. 0	DVP	3145 75	6NUCO TP	230. 0	DVP	1	Base Case	operati on	571.520019 531	137.74	142.19	DC	25.38
968281 35	3145 74	6EVERETS	230. 0	DVP	3044 51	6GREENVILE T	230. 0	CPL E	1	DVP_P 1-2: LN 2092	operati on	478.0	167.79	171.17	DC	16.17
968281 40	3145 74	6EVERETS	230. 0	DVP	3044 51	6GREENVILE T	230. 0	CPL E	1	Base Case	operati on	478.0	117.82	119.15	DC	14.07
978898 03	3145 75	6NUCO TP	230. 0	DVP	9577 90	AF2-073 TAP	230. 0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019 531	250.5	255.87	DC	30.67

978898 10	3145 75	6NUCO TP	230. 0	DVP	9577 90	AF2-073 TAP	230. 0	DVP	1	Base Case	operati on	571.520019 531	131.33	135.78	DC	25.38
978902 82	3145 79	6HORNRTN	230. 0	DVP	9343 30	AD1-057 TAP	230. 0	DVP	1	DVP_P 1-2: LN 238-A	operati on	441.799987 793	130.74	132.5	DC	17.23
978899 63	3145 83	6LAKEVEW	230. 0	DVP	9245 10	AB2-100 TAP	230. 0	DVP	1	DVP_P 1-2: LN 246	operati on	375.059997 559	188.33	190.94	DC	21.72
978899 67	3145 83	6LAKEVEW	230. 0	DVP	9245 10	AB2-100 TAP	230. 0	DVP	1	Base Case	operati on	375.059997 559	147.46	149.46	DC	16.58
978903 96	3145 83	6LAKEVEW	230. 0	DVP	3145 79	6HORNRTN	230. 0	DVP	1	DVP_P 1-2: LN 238-A	operati on	441.799987 793	108.61	112.54	DC	17.35
971137 97	3145 89	3MURPHYS	115. 0	DVP	3145 58	3BOYKINS	115. 0	DVP	1	DVP_P 1-2: LN 136	operati on	116.559997 559	-8.89	119.79	DC	150.0
968281 94	3145 91	6NASH	230. 0	DVP	3042 26	6PA- RMOUNT#4	230. 0	CPL E	1	DVP_P 1-2: LN 2058	operati on	478.0	134.39	135.92	DC	16.21
978905 08	3146 16	6TRWBRDG	230. 0	DVP	3145 94	6PLYMOTH	230. 0	DVP	1	DVP_P 1-2: LN 246	operati on	789.599975 586	97.79	100.27	DC	19.57
971136 85	3146 17	3TUNIS	115. 0	DVP	3145 51	3AHOSKIE	115. 0	DVP	1	DVP_P 1-2: LN 68	operati on	142.880004 883	86.76	148.75	DC	88.57
971136 91	3146 23	3WITAKRS	115. 0	DVP	3138 54	3CONSLDL	115. 0	DVP	1	DVP_P 1-2: LN 2056- A	operati on	165.440002 441	135.62	138.79	DC	11.64
971136 96	3146 23	3WITAKRS	115. 0	DVP	3138 54	3CONSLDL	115. 0	DVP	1	Base Case	operati on	165.440002 441	107.79	110.53	DC	10.07
978899 19	3146 37	6EDENTON	230. 0	DVP	3138 85	6WALBMRL	230. 0	DVP	1	Base Case	operati on	733.200012 207	165.19	165.92	DC	11.91
978900 39	3146 51	6WINFALL	230. 0	DVP	3146 39	6TANGLEW	230. 0	DVP	1	Base Case	operati on	823.440002 441	114.58	115.04	DC	8.38
978898 32	3146 62	6S HERTFORD	230. 0	DVP	3146 51	6WINFALL	230. 0	DVP	1	Base Case	operati on	733.200012 207	191.68	192.41	DC	11.91
978898 57	9245 10	AB2-100 TAP	230. 0	DVP	3145 63	6CLUBHSE	230. 0	DVP	1	DVP_P 1-2: LN 246	operati on	375.059997 559	210.37	212.98	DC	21.67
978898 61	9245 10	AB2-100 TAP	230. 0	DVP	3145 63	6CLUBHSE	230. 0	DVP	1	Base Case	operati on	375.059997 559	168.01	170.0	DC	16.53
971138 92	9251 70	AB2-174 TAP	115. 0	DVP	3145 72	3EMPORIA	115. 0	DVP	1	DVP_P 1-2: LN 5254	operati on	269.779998 779	109.07	111.27	DC	13.08
978901 66	9343 30	AD1-057 TAP	230. 0	DVP	3138 45	6HATHAWAY	230. 0	DVP	1	DVP_P 1-2: LN 238-A	operati on	441.799987 793	143.66	145.41	DC	17.23
978901 23	9404 80	AE2-033 TAP	230. 0	DVP	3144 35	6SAPONY	230. 0	DVP	1	DVP_P 1-2: LN 2012-B	operati on	678.679992 676	148.2	149.56	DC	20.45
978901 28	9404 80	AE2-033 TAP	230. 0	DVP	3144 35	6SAPONY	230. 0	DVP	1	Base Case	operati on	678.679992 676	141.52	143.04	DC	22.86
971137 20	9575 20	AF2-046 TAP	115. 0	DVP	3146 17	3TUNIS	115. 0	DVP	1	DVP_P 1-2: LN 68	operati on	142.880004 883	91.94	153.93	DC	88.57
978897 79	9577 90	AF2-073 TAP	230. 0	DVP	9578 20	AF2-076 TAP	230. 0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019 531	249.38	254.75	DC	30.67
978897 86	9577 90	AF2-073 TAP	230. 0	DVP	9578 20	AF2-076 TAP	230. 0	DVP	1	Base Case	operati on	571.520019 531	128.45	132.9	DC	25.38
978897 67	9578 20	AF2-076 TAP	230. 0	DVP	3145 37	6SUFFOLK	230. 0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019 531	249.65	255.02	DC	30.67
978897 74	9578 20	AF2-076 TAP	230. 0	DVP	3145 37	6SUFFOLK	230. 0	DVP	1	Base Case	operati on	571.520019 531	128.43	132.88	DC	25.38

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
97889797,9788 9802,97889796	6	6GEARLEYS 230.0 kV - 6NUCO TP 230.0 kV Ckt 1	<u>DVP</u> dom-017 (1096) : 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	\$20,550,000
97889809,9788 9808	26	6NUCO TP 230.0 kV - AF2-073 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-222 (1334) : Rebuild 18.1 miles of 230 kV Line 246 from Nuco TP to AF2-073 with 2-636 ACSR. Project Type : FAC Cost : \$27,150,000 Time Estimate : 36-40 Months	\$27,150,000
97889911,9788 9908	3	6WALBMRL 230.0 kV - 6PERQUIMANS 230.0 kV Ckt 1	<u>DVP</u> dom-203 (1315) : 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
97889920,9788 9923	9	6EDENTON 230.0 kV - 6WALBMRL 230.0 kV Ckt 1		
97889885,9788 9882	12	6MACKEYS 230.0 kV - 6EDENTON 230.0 kV Ckt 1		
97889773,9788 9772	40	AF2-076 TAP 230.0 kV - 6SUFFOLK 230.0 kV Ckt 1	<u>DVP</u> dom-243 (1355) : 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	\$4,200,000
97890134,9789 0130,98537132, 97890129,9770 8139,97708140, 98537128	38	AE2-033 TAP 230.0 kV - 6SAPONY 230.0 kV Ckt 1	<u>DVP</u> dom-050 (1129) : Rebuild 2.47 miles of 230 kV Line 238 from AE2-033 TAP to Sapony with 2-795 150C ACSR. Project Type : FAC Cost : \$3,705,000 Time Estimate : 30-36 Months	\$3,705,000
97708030,9789 0042,97890044	14	6CARSON 230.0 kV - 6CHRL249 230.0 kV Ckt 1	<u>DVP</u> dom-078 (1157) : Rebuild 7.47 miles of 230 kV Line 249 from Carson to Chaparral with 2-636 ACSR. Project Type : FAC Cost : \$18,675,000 Time Estimate : 30-36 Months	\$18,675,000

96828178	34	8MDLTHAN 500.0 kV - 8NO ANNA 500.0 kV Ckt 1	<u>DVP</u> n5609 (1260) : Rebuild 41.13 miles of 500 kV Line 576 from Midlothian to North Anna with 3-1351.5 125C ACSR. Project Type : FAC Cost : \$127,503,000 Time Estimate : 48-60 Months n6055 (1265) : Replace Wavetraps at Milothian and North Anna 500kV substations Project Type : FAC Cost : \$300,000 Time Estimate : 16-18 Months	\$127,803,000
97708241	37	AE1-072 TAP 230.0 kV - 6SLIGO L269 230.0 kV Ckt 1	<u>DVP</u> dom-239 (1351) : Rebuild 1.7 miles of 230 kV line 269 from AE1-072 Tap to Sligo with 2-636 ACSR. Project Type : FAC Cost : \$2,550,000 Time Estimate : 30-36 Months	\$2,550,000
97889833,9788 9836	33	6S HERTFORD 230.0 kV - 6WINFALL 230.0 kV Ckt 1	<u>DVP</u> dom-094 (1173) : 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	\$4,950,000
97889961	22	6WALR209 230.0 kV - 6LIGH209 230.0 kV Ckt 1	<u>DVP</u> b3056 (1077) : PJM Baseline Upgrade b3056. Partial Rebuild 230 kV Line #2113 Waller to Lightfoot. The baseline project has an projected in-service date of 12/30/2024. Project Type : FAC	\$0
97113698,9711 3697	8	3WITAKRS 115.0 kV - 3CONSLDL 115.0 kV Ckt 1	<u>DVP</u> dom-224 (1336) : Reconnector 0.67 miles of 115 kV line 1001 from Whitakers to Consolidated Diesel with 768 ACSS. Project Type : FAC Cost : \$402,000 Time Estimate : 30-36 Months	\$402,000
97889852	13	6SKIFF CREEK 230.0 kV - 6KINGS M 230.0 kV Ckt 1	<u>DVP</u> dom-066 (1145) : Rebuild 1.55 miles of 230 kV Line 2154 from Skiffes Creek to Kings Mill with 2-636 ACSR. Project Type : FAC Cost : \$3,875,000 Time Estimate : 30-36 Months	\$3,875,000

97889873	21	6KINGS M 230.0 kV - 6PENNIMAN 230.0 kV Ckt 1	<u>DVP</u> b3057 (1078) : PJM Baseline Upgrade b3057. Rebuild 6.1 miles of Waller-Skiffess Creek 230 kV Line (#2154) between Waller and Kings Mill to current standards with a minimum summer emergency rating of 1047 MVA utilizing single circuit steel structures. Remove this 6.1 mile section of Line #58 between Waller and Kings Mill. Rebuild the 1.6 miles of Line #2154 and #19 between Kings Mill and Skiffes Creek to current standards with a minimum summer emergency rating of 1047 MVA at 230 kV for Line #2154 and 261 MVA at 115 kV for Line #19, utilizing double circuit steel structures. The baseline project has an projected in-service date of 12/30/2024. Project Type : CON	\$0
97889893	17	6PENNIMAN 230.0 kV - 6WALR209 230.0 kV Ckt 1		
97889863,9788 9862,97889867	35	AB2-100 TAP 230.0 kV - 6CLUBHSE 230.0 kV Ckt 1	<u>DVP</u> dom-048 (1127) : Rebuild 2.0 miles of 230 kV Line 254 from Clubhouse to AB2-100 Tap with 2-636 ACSR. Project Type : FAC Cost : \$3,000,000 Time Estimate : 30-36 Months	\$3,000,000
97113706,9711 3707	2	3CONSLDL 115.0 kV - 3BTLEBRO 115.0 kV Ckt 1	<u>DVP</u> dom-201 (1313) : Reconnector 3.98 miles of 115 kV Line 27 from Consolidated DSL to Battleboro with 636 ACSR. Project Type : FAC Cost : \$2,388,000 Time Estimate : 30-36 Months	\$2,388,000
96828559,9682 8131	23	3BTLEBRO 115.0 kV - 3ROCKYMT115T 115.0 kV Ckt 1	<u>CPLE</u> NonPJMArea (936) : The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase. <u>DVP</u> dom-007 (1086) : Build new 500 kV line between Everetts and Suffolk. Project Type : CON Cost : \$570,000,000 Time Estimate : 48-60 Months n6118 (1271) : Upgrading the breaker leads at DVPs terminal will bring the rating to 239/239/239 MVA (Limited by terminal equipment at Rocky Mount) Approximately \$0.1 Million Project Type : FAC Cost : \$100,000 Time Estimate : 18 Months	\$570,100,000
97889825,9788 9826,97889821	1	6PERQUIMANS 230.0 kV - 6S HERTFORD 230.0 kV Ckt 1	<u>DVP</u> dom-090 (1169) : 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	\$6,975,000

96828141,9682 8564	7	6EVERETS 230.0 kV - 6GREENVILE T 230.0 kV Ckt 1	<u>CPLE</u> NonPJMArea (936) : The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase. <u>DVP</u> dom-173 (1237) : 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
97890252,9770 8085,97708084	20	6POE 230.0 kV - 6HARROWG 230.0 kV Ckt 1	<u>DVP</u> dom-037 (1116) : Rebuild 12.3 miles of 230 kV Line 2003 from Poe to Harrowgate with 2-636 ACSR. Project Type : FAC Cost : \$30,750,000 Time Estimate : 30-36 Months	\$30,750,000
97890171,9789 0172	36	AD1-057 TAP 230.0 kV - 6HATHAWAY 230.0 kV Ckt 1	<u>DVP</u> dom-076 (1155) : Rebuild 12.8 miles of 230 KV Line 2056 from AD1-057 Tap to Hathaway with 2-636 ACSR. Project Type : FAC Cost : \$19,200,000 Time Estimate : 30-36 Months	\$19,200,000
97890276,9770 8099	19	6LOCKS 230.0 kV - 6HARR205 230.0 kV Ckt 1	<u>DVP</u> dom-165 (1229) : Uprate 5.4 miles of 230 kV Line 205 from Locks to Harrowgate with 1033.5 ACSR. Upgrade Relays at Locks. Project Type : FAC Cost : \$2,280,000 Time Estimate : 30-36 Months	\$2,280,000
97708122,9770 8123,97708121	24	6CAROLNA 230.0 kV - 6LAKEVEW 230.0 kV Ckt 1	<u>DVP</u> dom-220 (1332) : 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
97890287,9789 0288	27	6HORNRTN 230.0 kV - AD1- 057 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-077 (1156) : Rebuild 16 miles of 230 kV Line 2056 from Hornertown to AD1-057 TAP with 2-636 ACSR. Project Type : FAC Cost : \$24,000,000 Time Estimate : 36-40 Months	\$24,000,000

97890017	10	6HATHAWAY 230.0 kV - 6NASH 230.0 kV Ckt 1	<u>DVP</u> dom-143 (1208) : Rebuild 0.76 miles of 230 kV Line 2181 from Hathaway to Nash with 2-636 ACSR. Project Type : FAC Cost : \$1,900,000 Time Estimate : 30-36 Months	\$1,900,000
97708252	31	6SLIGO L269 230.0 kV - 6FENTRES 230.0 kV Ckt 1	<u>DVP</u> dom-225 (1337) : Rebuild 21.64 miles of 230 kV Line 269 from Sligo to Fentress with 2-636 ACSR. Project Type : FAC Cost : \$32,460,000 Time Estimate : 36-40 Months	\$32,460,000
97890006,9789 0007,97890011	5	6SAPONY 230.0 kV - 6CARSON 230.0 kV Ckt 1	<u>DVP</u> dom-051 (1130) : Rebuild 11.79 miles of 230 kV Line 238 from Sapony to Carson with 2-795 150C ACSR. Project Type : FAC Cost : \$17,685,000 Time Estimate : 30-36 Months	\$17,685,000
97890494	4	6HARR205 230.0 kV - 6TYLER 230.0 kV Ckt 1	<u>DVP</u> dom-163 (1227) : Reconnector 0.64 miles of 230 kV Line 205 from Harrowgate to Tyler with 1033.5 ACSR. Uprate 4.09 miles of 230 kV Line 205 from Harrowgate to Tyler. Project Type : FAC Cost : \$2,148,000 Time Estimate : 30-36 Months	\$2,148,000
97890066,9770 8040,97890064	15	6CHRL249 230.0 kV - 6LOCKS 230.0 kV Ckt 1	<u>DVP</u> dom-079 (1158) : Rebuild 2.86 miles of 230 kV Line 249 from Chaparral to Locks with 2-636 ACSR. Project Type : FAC Cost : \$7,150,000 Time Estimate : 30-36 Months	\$7,150,000
97707945,9788 9845	29	6ELIZ CT 230.0 kV - 6SHAWBRO 230.0 kV Ckt 1	<u>DVP</u> dom-255 (1367) : 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 Wavetrap, relay (Secondary CT), Line Lead at Shawboro 230 kV. Project Type : FAC Cost : \$17,140,000 Time Estimate : 36-40 Months	\$17,140,000

97890056	25	6CLUBHSE 230.0 kV - AE2-033 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-047 (1126) : Rebuild 14.28 miles of 230 kV Line 238 from Clubhouse to AE2-033 Tap with 2-795 150C ACSR. Project Type : FAC Cost : \$21,420,000 Time Estimate : 30-36 Months	\$21,420,000
97708059	32	6WINFALL 230.0 kV - 6TANGLEW 230.0 kV Ckt 1	<u>DVP</u> dom-200 (1312) : Wreck and rebuild 5.6 miles of existing single circuit line 2020 between Elizabeth City to Pasquotank 230 kV. Add new circuit between Elizabeth City to Pasquotank 230 kV, constructed as a double circuit line. Utilize 2-636 ACSR for all new and modified circuits. Add a three breaker station at Pasquotank and Elizabeth City DP 230 kV. Project Type : CON Cost : \$27,000,000 Time Estimate : 36-40 Months	\$54,325,000
97708064	30	6TANGLEW 230.0 kV - 6ECITYDP2 230.0 kV Ckt 1	dom-256 (1368) : Wreck and rebuild 9.97 miles of existing single circuit line 2020 between Winfall to Pasquotank 230 kV. Add new circuit between Winfall to Pasquotank 230 kV, constructed as a double circuit line. Utilize 2-636 ACSR for all new and modified circuits. Add a breaker at Pasquotank 230 kV and at Winfall 230 kV. Project Type : CON Cost : \$27,325,000 Time Estimate : 36-40 Months	
97708069	11	6ECITYDP2 230.0 kV - 6ELIZ CT 230.0 kV Ckt 1		
97708079,97890022	16	6CHESTF B 230.0 kV - 6BASIN 230.0 kV Ckt 1	<u>DVP</u> dom-012 (1091) : Rebuild 12.4 miles of 230 kV Line 259 from Chesterfield to Basin with 2-636 ACSR. Project Type : FAC Cost : \$31,000,000 Time Estimate : 30-36 Months	\$31,000,000
97889973,97889968,97889969	28	6LAKEVEW 230.0 kV - AB2-100 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-049 (1128) : Rebuild 16.0 miles of 230 kV Line 254 from AB2-100 Tap to Lakeview with 2-636 ACSR. Project Type : FAC Cost : \$24,000,000 Time Estimate : 30-36 Months	\$24,000,000
97708089,97708090,97890257	18	6HARROWG 230.0 kV - 6TYLER1 230.0 kV Ckt 1	<u>DVP</u> dom-036 (1115) : Rebuild 4.5 miles of 230 kV Line 2003 from Harrowgate to Tyler with 2-636 ACSR. Project Type : FAC Cost : \$11,250,000 Time Estimate : 30-36 Months	\$11,250,000

97889784,9788 9785	39	AF2-073 TAP 230.0 kV - AF2- 076 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-242 (1354) : Rebuild 9.8 miles of 230 kV Line 246 from AF2-073 Tap to AF2-076 Tap with 2-795 ACSR. Project Type : FAC Cost : \$14,700,000 Time Estimate : 36-40 Months	\$14,700,000
			TOTAL COST	\$1,184,416,000

11.6 Flow Gate Details

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97889821	313714	6PERQUIMANS	DVP	314662	6S HERTFORD	DVP	1	DVP_P1-2: LN 246	single	733.2	123.47	125.24	DC	12.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0325	80/20	0.0325
314574	6EVERETS	0.3446	80/20	0.3446
314582	3KELFORD	0.4969	80/20	0.4969
314589	3MURPHYS	0.0660	80/20	0.0660
314623	3WITAKRS	0.1596	80/20	0.1596
314704	3LAWRENC	0.1176	80/20	0.1176
315126	1ROARAP2	0.9082	80/20	0.9082
315128	1ROARAP4	0.8667	80/20	0.8667
315131	1EDGECEMA (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315132	1EDGECEMB (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315136	1ROSEMG1	1.5269	80/20	1.5269
315137	1ROSEMS1	0.9468	80/20	0.9468
315138	1ROSEMG2	0.7156	80/20	0.7156
315139	1GASTONA	2.2149	80/20	2.2149
315141	1GASTONB	2.2149	80/20	2.2149
315161	1KERR 4	0.3901	80/20	0.3901
315162	1KERR 5	0.3901	80/20	0.3901
315163	1KERR 6	0.3901	80/20	0.3901
315164	1KERR 7	0.3901	80/20	0.3901
315292	1DOMTR78	3.3298	80/20	3.3298
315294	1DOMTR10	25.0180	80/20	25.0180
315601	1CONETOE2SOL	1.4398	80/20	1.4398
315602	1HOLLOMANSOL	2.2223	80/20	2.2223
315606	3AA2-053SOLA	1.1036	80/20	1.1036
315607	3AA1-063SOLA	0.8357	80/20	0.8357
315608	3AA2-088SOLA	0.4899	80/20	0.4899
315611	6Z1-036WIND	27.9154	80/20	27.9154
315612	3AA2-057SOLA	0.8869	80/20	0.8869
315614	AA2-178 C	5.2604	80/20	5.2604
920591	AA2-165 C	0.1052	80/20	0.1052
920671	AA2-174 C OP	0.0505	80/20	0.0505
922922	AB1-081 C OP	5.9136	80/20	5.9136
923262	AB1-132 C OP (Suspended)	9.8053	80/20	9.8053
923572	AB1-173 C OP	1.1594	80/20	1.1594
923582	AB1-173AC OP	1.1594	80/20	1.1594
923831	AB2-022 C	-1.6400	Adder	-1.93
923911	AB2-031 C O1	1.1508	80/20	1.1508
923991	AB2-040 C O1	3.7787	80/20	3.7787
924151	AB2-059 C OP	1.2022	80/20	1.2022

924501	AB2-099 C (Suspended)	0.6347	80/20	0.6347
924511	AB2-100 C	0.8106	80/20	0.8106
925121	AB2-169 C	2.1767	80/20	2.1767
925171	AB2-174 C O1	0.5928	80/20	0.5928
925591	AC1-034 C	4.5144	80/20	4.5144
925781	AC1-054 C O1	2.9637	80/20	2.9637
926071	AC1-086 C	14.4395	80/20	14.4395
926201	AC1-098 C	5.2053	80/20	5.2053
926211	AC1-099 C	1.7443	80/20	1.7443
927021	AC1-189 C	8.6764	80/20	8.6764
927141	AC1-208 C	6.6480	80/20	6.6480
932631	AC2-084 C	7.4204	80/20	7.4204
933991	AD1-023 C	30.3123	80/20	30.3123
934331	AD1-057 C O1	6.8258	80/20	6.8258
934521	AD1-076 C	142.1118	80/20	142.1118
936401	AD2-051 C O1	12.4167	80/20	12.4167
938171	AE1-026 C O1	68.2899	80/20	68.2899
938221	AE1-035 C	3.2208	80/20	3.2208
940491	AE2-034 C	22.8724	80/20	22.8724
940571	AE2-044 C	2.9568	80/20	2.9568
941541	AE2-151 C	1.3133	80/20	1.3133
942471	AE2-260 C O1	5.3193	80/20	5.3193
942851	AE2-304 C	-0.7263	Adder	-0.85
943171	AE2-346 C	1.5233	80/20	1.5233
943911	AF1-059	5.3880	80/20	5.3880
944141	AF1-082	1.9008	80/20	1.9008
945711	AF1-236 C O1	250.3979	80/20	250.3979
946281	AF1-292 C	0.6331	80/20	0.6331
957521	AF2-046 C	12.9920	80/20	12.9920
957531	AF2-047 C	54.3491	80/20	54.3491
957861	AF2-080 C	7.8803	80/20	7.8803
959231	AF2-214 C	6.3888	80/20	6.3888
959511	AF2-242	13.1813	80/20	13.1813
959731	AF2-264 C	2.1088	80/20	2.1088
960081	AF2-299 C	1.0671	80/20	1.0671
960331	AF2-324 C O1	5.2899	80/20	5.2899
960351	AF2-326 C	1.6838	80/20	1.6838
960831	AF2-374 C	1.3333	80/20	1.3333
WEC	WEC	0.2337	Confirmed LTF	0.2337
LGEE	LGEE	0.4364	Confirmed LTF	0.4364
CPL	CPL	2.6804	Confirmed LTF	2.6804
CBM-W2	CBM-W2	9.0499	Confirmed LTF	9.0499
NY	NY	0.2068	Confirmed LTF	0.2068
CBM-W1	CBM-W1	8.8070	Confirmed LTF	8.8070
TVA	TVA	1.8732	Confirmed LTF	1.8732
CBM-S2	CBM-S2	16.2476	Confirmed LTF	16.2476
CBM-S1	CBM-S1	10.4966	Confirmed LTF	10.4966
MADISON	MADISON	0.5000	Confirmed LTF	0.5000
MEC	MEC	1.3920	Confirmed LTF	1.3920
AA2-074	AA2-074	1.8270	LTF	1.8270

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
97113706	313854	3CONSLDL	DVP	314554	3BTLEBRO	DVP	1	DVP_P1-2: LN 2056-A	single	165.44	99.62	104.3	DC	7.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0280	80/20	0.0280
314582	3KELFORD	0.5209	80/20	0.5209
314589	3MURPHYS	0.0429	80/20	0.0429
314623	3WITAKRS	1.0377	80/20	1.0377
315115	1S HAMPT1	0.5245	80/20	0.5245
315126	1ROARAP2	0.9727	80/20	0.9727
315128	1ROARAP4	0.9282	80/20	0.9282
315136	1ROSEMG1	0.7756	80/20	0.7756
315137	1ROSEMS1	0.4810	80/20	0.4810
315138	1ROSEMG2	0.3635	80/20	0.3635
315139	1GASTONA	1.1138	80/20	1.1138
315141	1GASTONB	1.1138	80/20	1.1138
315606	3AA2-053SOLA	0.9626	80/20	0.9626
315607	3AA1-063SOLA	0.8569	80/20	0.8569
315608	3AA2-088SOLA	0.4767	80/20	0.4767
315612	3AA2-057SOLA	4.6704	80/20	4.6704
920591	AA2-165 C	0.5538	80/20	0.5538
920671	AA2-174 C OP	0.0441	80/20	0.0441
922922	AB1-081 C OP	-7.5198	Adder	-8.85
923262	AB1-132 C OP (Suspended)	4.9308	80/20	4.9308
923572	AB1-173 C OP	1.1052	80/20	1.1052
923582	AB1-173AC OP	1.1052	80/20	1.1052
923801	AB2-015 C OP	2.6445	80/20	2.6445
923911	AB2-031 C O1	1.0971	80/20	1.0971
923991	AB2-040 C O1	3.6023	80/20	3.6023
924501	AB2-099 C (Suspended)	0.2794	80/20	0.2794
925171	AB2-174 C O1	0.5459	80/20	0.5459
925781	AC1-054 C O1	2.5361	80/20	2.5361
926071	AC1-086 C	7.2612	80/20	7.2612
926201	AC1-098 C	14.0774	80/20	14.0774
926211	AC1-099 C	4.7174	80/20	4.7174
927141	AC1-208 C	22.9511	80/20	22.9511
932631	AC2-084 C	20.0678	80/20	20.0678
934331	AD1-057 C O1	3.5977	80/20	3.5977
941541	AE2-151 C	0.5249	80/20	0.5249
943171	AE2-346 C	0.6707	80/20	0.6707
946281	AF1-292 C	0.5176	80/20	0.5176
957521	AF2-046 C	7.7415	80/20	7.7415
959731	AF2-264 C	1.0555	80/20	1.0555
960081	AF2-299 C	0.8724	80/20	0.8724
960831	AF2-374 C	0.6788	80/20	0.6788

961091	AF2-400 C	0.1428	80/20	0.1428
NEWTON	NEWTON	0.5158	Confirmed LTF	0.5158
FARMERCITY	FARMERCITY	0.0297	Confirmed LTF	0.0297
G-007A	G-007A	0.2973	Confirmed LTF	0.2973
VFT	VFT	0.7934	Confirmed LTF	0.7934
CALDERWOOD	CALDERWOOD	0.4130	Confirmed LTF	0.4130
PRAIRIE	PRAIRIE	1.3974	Confirmed LTF	1.3974
CHEOAH	CHEOAH	0.4239	Confirmed LTF	0.4239
EDWARDS	EDWARDS	0.1554	Confirmed LTF	0.1554
TILTON	TILTON	0.2747	Confirmed LTF	0.2747
GIBSON	GIBSON	0.2484	Confirmed LTF	0.2484
BLUEG	BLUEG	0.7656	Confirmed LTF	0.7656
TRIMBLE	TRIMBLE	0.2426	Confirmed LTF	0.2426
CATAWBA	CATAWBA	0.4469	Confirmed LTF	0.4469

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
97889908	313885	6WALBMRL	DVP	313714	6PERQUIMANS	DVP	1	DVP_P1-2: LN 246	single	733.2	118.38	120.15	DC	12.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0325	80/20	0.0325
314574	6EVERETS	0.3446	80/20	0.3446
314582	3KELFORD	0.4969	80/20	0.4969
314589	3MURPHYS	0.0660	80/20	0.0660
314623	3WITAKRS	0.1596	80/20	0.1596
314704	3LAWRENC	0.1176	80/20	0.1176
315126	1ROARAP2	0.9082	80/20	0.9082
315128	1ROARAP4	0.8667	80/20	0.8667
315131	1EDGECEMA (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315132	1EDGECEMB (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315136	1ROSEMG1	1.5269	80/20	1.5269
315137	1ROSEMS1	0.9468	80/20	0.9468
315138	1ROSEMG2	0.7156	80/20	0.7156
315139	1GASTONA	2.2149	80/20	2.2149
315141	1GASTONB	2.2149	80/20	2.2149
315161	1KERR 4	0.3901	80/20	0.3901
315162	1KERR 5	0.3901	80/20	0.3901
315163	1KERR 6	0.3901	80/20	0.3901
315164	1KERR 7	0.3901	80/20	0.3901
315292	1DOMTR78	3.3298	80/20	3.3298
315294	1DOMTR10	25.0180	80/20	25.0180
315601	1CONETOE2SOL	1.4398	80/20	1.4398
315602	1HOLLOMANSOL	2.2223	80/20	2.2223
315606	3AA2-053SOLA	1.1036	80/20	1.1036
315607	3AA1-063SOLA	0.8357	80/20	0.8357
315608	3AA2-088SOLA	0.4899	80/20	0.4899
315611	6Z1-036WIND	-9.4219	Adder	-11.08
315612	3AA2-057SOLA	0.8869	80/20	0.8869
315614	AA2-178 C	5.2604	80/20	5.2604
920591	AA2-165 C	0.1052	80/20	0.1052
920671	AA2-174 C OP	0.0505	80/20	0.0505
922922	AB1-081 C OP	5.9136	80/20	5.9136
923262	AB1-132 C OP (Suspended)	9.8053	80/20	9.8053
923572	AB1-173 C OP	1.1594	80/20	1.1594
923582	AB1-173AC OP	1.1594	80/20	1.1594
923831	AB2-022 C	-1.6400	Adder	-1.93
923911	AB2-031 C O1	1.1508	80/20	1.1508
923991	AB2-040 C O1	3.7787	80/20	3.7787
924151	AB2-059 C OP	1.2022	80/20	1.2022

924501	AB2-099 C (Suspended)	0.6347	80/20	0.6347
924511	AB2-100 C	0.8106	80/20	0.8106
925121	AB2-169 C	2.1767	80/20	2.1767
925171	AB2-174 C O1	0.5928	80/20	0.5928
925591	AC1-034 C	4.5144	80/20	4.5144
925781	AC1-054 C O1	2.9637	80/20	2.9637
926071	AC1-086 C	14.4395	80/20	14.4395
926201	AC1-098 C	5.2053	80/20	5.2053
926211	AC1-099 C	1.7443	80/20	1.7443
927021	AC1-189 C	8.6764	80/20	8.6764
927141	AC1-208 C	6.6480	80/20	6.6480
932631	AC2-084 C	7.4204	80/20	7.4204
933991	AD1-023 C	30.3123	80/20	30.3123
934331	AD1-057 C O1	6.8258	80/20	6.8258
934521	AD1-076 C	142.1118	80/20	142.1118
936401	AD2-051 C O1	12.4167	80/20	12.4167
938171	AE1-026 C O1	68.2899	80/20	68.2899
938221	AE1-035 C	3.2208	80/20	3.2208
940491	AE2-034 C	22.8724	80/20	22.8724
940571	AE2-044 C	2.9568	80/20	2.9568
941541	AE2-151 C	1.3133	80/20	1.3133
942471	AE2-260 C O1	5.3193	80/20	5.3193
942851	AE2-304 C	-0.7263	Adder	-0.85
943171	AE2-346 C	1.5233	80/20	1.5233
943911	AF1-059	5.3880	80/20	5.3880
944141	AF1-082	1.9008	80/20	1.9008
945711	AF1-236 C O1	250.3979	80/20	250.3979
946281	AF1-292 C	0.6331	80/20	0.6331
957521	AF2-046 C	12.9920	80/20	12.9920
957531	AF2-047 C	54.3491	80/20	54.3491
957861	AF2-080 C	7.8803	80/20	7.8803
959231	AF2-214 C	6.3888	80/20	6.3888
959511	AF2-242	13.1813	80/20	13.1813
959731	AF2-264 C	2.1088	80/20	2.1088
960081	AF2-299 C	1.0671	80/20	1.0671
960331	AF2-324 C O1	5.2899	80/20	5.2899
960351	AF2-326 C	1.6838	80/20	1.6838
960831	AF2-374 C	1.3333	80/20	1.3333
WEC	WEC	0.2337	Confirmed LTF	0.2337
LGEE	LGEE	0.4364	Confirmed LTF	0.4364
CPL	CPL	2.6804	Confirmed LTF	2.6804
CBM-W2	CBM-W2	9.0499	Confirmed LTF	9.0499
NY	NY	0.2068	Confirmed LTF	0.2068
CBM-W1	CBM-W1	8.8070	Confirmed LTF	8.8070
TVA	TVA	1.8732	Confirmed LTF	1.8732
CBM-S2	CBM-S2	16.2476	Confirmed LTF	16.2476
CBM-S1	CBM-S1	10.4966	Confirmed LTF	10.4966
MADISON	MADISON	0.5000	Confirmed LTF	0.5000
MEC	MEC	1.3920	Confirmed LTF	1.3920
AA2-074	AA2-074	1.8270	LTF	1.8270

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
97890494	314301	6HARR205	DVP	314346	6TYLER	DVP	1	DVP_P1-2: LN 563	single	441.8	99.24	100.54	DC	5.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314314	3LOCKS	0.4455	80/20	0.4455
314435	6SAPONY	0.3656	80/20	0.3656
314572	3EMPORIA	0.0416	80/20	0.0416
314582	3KELFORD	0.1630	80/20	0.1630
314589	3MURPHYS	0.0321	80/20	0.0321
314623	3WITAKRS	0.0856	80/20	0.0856
314704	3LAWRENC	0.1622	80/20	0.1622
314947	8GREENSVILLE	17.1820	80/20	17.1820
315102	1BRUNSWICKG1	2.8206	80/20	2.8206
315103	1BRUNSWICKG2	2.8206	80/20	2.8206
315104	1BRUNSWICKG3	2.8206	80/20	2.8206
315105	1BRUNSWICKS1	5.8599	80/20	5.8599
315126	1ROARAP2	0.6321	80/20	0.6321
315128	1ROARAP4	0.6032	80/20	0.6032
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.3634	80/20	3.3634
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.3634	80/20	3.3634
315136	1ROSEMG1	1.0720	80/20	1.0720
315137	1ROSEMS1	0.6647	80/20	0.6647
315138	1ROSEMG2	0.5024	80/20	0.5024
315139	1GASTONA	1.6003	80/20	1.6003
315141	1GASTONB	1.6003	80/20	1.6003
315162	1KERR 5	0.3919	80/20	0.3919
315163	1KERR 6	0.3919	80/20	0.3919
315164	1KERR 7	0.3919	80/20	0.3919
315601	1CONETOE2SOL	0.5321	80/20	0.5321
315602	1HOLLOMANSOL	0.5013	80/20	0.5013
315606	3AA2-053SOLA	0.6329	80/20	0.6329
315607	3AA1-063SOLA	0.5873	80/20	0.5873
315608	3AA2-088SOLA	0.3722	80/20	0.3722
315612	3AA2-057SOLA	0.4674	80/20	0.4674
920591	AA2-165 C	0.0554	80/20	0.0554
920671	AA2-174 C OP	0.0290	80/20	0.0290
922922	AB1-081 C OP	3.2290	80/20	3.2290
923262	AB1-132 C OP (Suspended)	7.0846	80/20	7.0846
923572	AB1-173 C OP	1.1873	80/20	1.1873
923582	AB1-173AC OP	1.1873	80/20	1.1873
923911	AB2-031 C O1	1.1785	80/20	1.1785
923991	AB2-040 C O1	3.8698	80/20	3.8698
924151	AB2-059 C OP	0.6564	80/20	0.6564

924501	AB2-099 C (Suspended)	0.2001	80/20	0.2001
924511	AB2-100 C	1.3497	80/20	1.3497
925051	AB2-160 C O1 (Suspended)	7.8511	80/20	7.8511
925171	AB2-174 C O1	0.6608	80/20	0.6608
925591	AC1-034 C	2.4650	80/20	2.4650
925781	AC1-054 C O1	2.6166	80/20	2.6166
926071	AC1-086 C	10.4329	80/20	10.4329
926201	AC1-098 C	2.3154	80/20	2.3154
926211	AC1-099 C	0.7759	80/20	0.7759
927021	AC1-189 C	2.8905	80/20	2.8905
927141	AC1-208 C	3.5367	80/20	3.5367
932581	AC2-078 C O1	1.3089	80/20	1.3089
932631	AC2-084 C	3.3007	80/20	3.3007
934331	AD1-057 C O1	4.2665	80/20	4.2665
936401	AD2-051 C O1	2.8836	80/20	2.8836
938221	AE1-035 C	0.7265	80/20	0.7265
938491	AE1-068 C O1	19.8703	80/20	19.8703
938501	AE1-069 C O1	15.5525	80/20	15.5525
938631	AE1-085 C O1	2.7970	80/20	2.7970
939191	AE1-149 C O1	3.5550	80/20	3.5550
940431	AE2-027 C O1	11.7288	80/20	11.7288
940471	AE2-031 C	10.8037	80/20	10.8037
940481	AE2-033 C	13.2405	80/20	13.2405
940541	AE2-040 O1	4.0547	80/20	4.0547
940571	AE2-044 C	1.6145	80/20	1.6145
940641	AE2-051 C O1	5.3352	80/20	5.3352
940651	AE2-052	1.1850	80/20	1.1850
941031	AE2-094 C	13.0059	80/20	13.0059
941541	AE2-151 C	0.3709	80/20	0.3709
942001	AE2-212 C	7.5884	80/20	7.5884
942371	AE2-250 C O1	13.9460	80/20	13.9460
942471	AE2-260 C O1	9.9943	80/20	9.9943
942931	AE2-313 C	11.6978	80/20	11.6978
943171	AE2-346 C	0.4803	80/20	0.4803
943911	AF1-059	7.2870	80/20	7.2870
944011	AF1-069 C	4.2495	80/20	4.2495
944141	AF1-082	1.0379	80/20	1.0379
946011	AF1-266	11.0834	80/20	11.0834
946281	AF1-292 C	0.8882	80/20	0.8882
957521	AF2-046 C	5.7355	80/20	5.7355
957861	AF2-080 C	2.6253	80/20	2.6253
958141	AF2-108	7.7938	80/20	7.7938
959231	AF2-214 C	3.4884	80/20	3.4884
959671	AF2-258 C	1.8971	80/20	1.8971
959681	AF2-259 C	6.6804	80/20	6.6804
959731	AF2-264 C	0.7681	80/20	0.7681
960081	AF2-299 C	1.4970	80/20	1.4970
960331	AF2-324 C O1	2.8299	80/20	2.8299
960351	AF2-326 C	0.9210	80/20	0.9210
960831	AF2-374 C	0.4664	80/20	0.4664
WEC	WEC	0.2347	Confirmed LTF	0.2347
LGEE	LGEE	0.4433	Confirmed LTF	0.4433
CPLE	CPLE	2.5124	Confirmed LTF	2.5124

CBM-W2	CBM-W2	9.5168	Confirmed LTF	9.5168
NY	NY	0.3495	Confirmed LTF	0.3495
CBM-W1	CBM-W1	8.7445	Confirmed LTF	8.7445
TVA	TVA	2.0076	Confirmed LTF	2.0076
CBM-S2	CBM-S2	16.9701	Confirmed LTF	16.9701
CBM-S1	CBM-S1	11.1782	Confirmed LTF	11.1782
MADISON	MADISON	0.5685	Confirmed LTF	0.5685
MEC	MEC	1.4285	Confirmed LTF	1.4285
AA2-074	AA2-074	1.7122	LTF	1.7122

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
97890006	314435	6SAPONY	DVP	314282	6CARSON	DVP	1	DVP_P1-2: LN 246	single	678.68	121.89	124.59	DC	18.87

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	1.7767	80/20	1.7767
314572	3EMPORIA	0.1786	80/20	0.1786
314574	6EVERETS	0.2977	80/20	0.2977
314582	3KELFORD	0.5909	80/20	0.5909
314589	3MURPHYS	0.1033	80/20	0.1033
314623	3WITAKRS	0.2747	80/20	0.2747
314704	3LAWRENC	0.6597	80/20	0.6597
315126	1ROARAP2	2.4063	80/20	2.4063
315128	1ROARAP4	2.2963	80/20	2.2963
315131	1EDGECEMA (Deactivation : 22/04/2019)	10.4823	80/20	10.4823
315132	1EDGECEMB (Deactivation : 22/04/2019)	10.4823	80/20	10.4823
315136	1ROSEMG1	4.3501	80/20	4.3501
315137	1ROSEMS1	2.6975	80/20	2.6975
315138	1ROSEMG2	2.0388	80/20	2.0388
315139	1GASTONA	6.6383	80/20	6.6383
315141	1GASTONB	6.6383	80/20	6.6383
315158	1KERR 1	0.4002	80/20	0.4002
315159	1KERR 2	1.1205	80/20	1.1205
315160	1KERR 3	1.1205	80/20	1.1205
315161	1KERR 4	1.1205	80/20	1.1205
315162	1KERR 5	1.1205	80/20	1.1205
315163	1KERR 6	1.1205	80/20	1.1205
315164	1KERR 7	1.1205	80/20	1.1205
315294	1DOMTR10	7.7321	Adder	9.1
315601	1CONETOE2SOL	1.6673	80/20	1.6673
315602	1HOLLOMAN SOL	1.9043	80/20	1.9043
315606	3AA2-053SOLA	2.3991	80/20	2.3991
315607	3AA1-063SOLA	2.0770	80/20	2.0770
315608	3AA2-088SOLA	1.0872	80/20	1.0872
315612	3AA2-057SOLA	1.5527	80/20	1.5527
920591	AA2-165 C	0.1841	80/20	0.1841
920671	AA2-174 C OP	0.1099	80/20	0.1099
922922	AB1-081 C OP	9.9876	80/20	9.9876
923262	AB1-132 C OP (Suspended)	29.3882	80/20	29.3882
923572	AB1-173 C OP	4.9272	80/20	4.9272
923582	AB1-173AC OP	4.9272	80/20	4.9272
923801	AB2-015 C OP	4.4378	Adder	5.22
923911	AB2-031 C O1	4.8907	80/20	4.8907
923991	AB2-040 C O1	16.0591	80/20	16.0591

924151	AB2-059 C OP	2.0304	80/20	2.0304
924301	AB2-077 C O1 (Suspended)	1.4183	Adder	1.67
924311	AB2-078 C O1 (Suspended)	1.4183	Adder	1.67
924321	AB2-079 C O1 (Suspended)	1.4183	Adder	1.67
924501	AB2-099 C (Suspended)	0.7157	80/20	0.7157
924511	AB2-100 C	6.1819	80/20	6.1819
925171	AB2-174 C O1	2.7810	80/20	2.7810
925591	AC1-034 C	7.6245	80/20	7.6245
925611	AC1-036 C	0.5293	Adder	0.62
925781	AC1-054 C O1	8.2530	80/20	8.2530
926071	AC1-086 C	43.2777	80/20	43.2777
926201	AC1-098 C	8.1359	80/20	8.1359
926211	AC1-099 C	2.7264	80/20	2.7264
927021	AC1-189 C	9.0732	80/20	9.0732
927141	AC1-208 C	12.4257	80/20	12.4257
932631	AC2-084 C	11.5980	80/20	11.5980
933991	AD1-023 C	11.8384	80/20	11.8384
934331	AD1-057 C O1	15.6382	80/20	15.6382
934521	AD1-076 C	36.3614	Adder	42.78
936261	AD2-033 C	7.6172	Adder	8.96
936361	AD2-046 C O1	8.3565	80/20	8.3565
936401	AD2-051 C O1	10.9951	80/20	10.9951
936481	AD2-063 C O1	9.8387	Adder	11.57
938171	AE1-026 C O1	31.0088	80/20	31.0088
938221	AE1-035 C	2.7600	80/20	2.7600
939181	AE1-148 C O1	8.2015	80/20	8.2015
940241	AE2-006	0.2693	Adder	0.32
940481	AE2-033 C	63.9572	80/20	63.9572
940491	AE2-034 C	3.6978	Adder	4.35
940571	AE2-044 C	4.9938	80/20	4.9938
940661	AE2-053 O1	2.5820	Adder	3.04
941541	AE2-151 C	1.3698	80/20	1.3698
942451	AE2-258	1.6869	Adder	1.98
942471	AE2-260 C O1	46.1499	80/20	46.1499
943171	AE2-346 C	1.7176	80/20	1.7176
943911	AF1-059	27.1850	80/20	27.1850
944141	AF1-082	3.2103	80/20	3.2103
945711	AF1-236 C O1	40.4822	Adder	47.63
946011	AF1-266	53.5372	80/20	53.5372
946281	AF1-292 C	3.8601	80/20	3.8601
957521	AF2-046 C	18.8652	80/20	18.8652
957531	AF2-047 C	4.6569	Adder	10.34
957861	AF2-080 C	8.2406	80/20	8.2406
959231	AF2-214 C	10.7902	80/20	10.7902
959311	AF2-222 C	4.7483	Adder	10.54
959511	AF2-242	7.3930	80/20	7.3930
959731	AF2-264 C	2.6430	80/20	2.6430
960081	AF2-299 C	6.5058	80/20	6.5058
960331	AF2-324 C O1	8.8196	80/20	8.8196
960351	AF2-326 C	2.8438	80/20	2.8438
960811	AF2-372 C	0.4748	Adder	1.05

960831	AF2-374 C	1.7399	80/20	1.7399
961091	AF2-400 C	0.1270	Adder	0.28
WEC	WEC	0.3178	Confirmed LTF	0.3178
LGEE	LGEE	0.5973	Confirmed LTF	0.5973
CPL	CPL	3.6396	Confirmed LTF	3.6396
CBM-W2	CBM-W2	12.5225	Confirmed LTF	12.5225
NY	NY	0.3783	Confirmed LTF	0.3783
CBM-W1	CBM-W1	11.9095	Confirmed LTF	11.9095
TVA	TVA	2.6124	Confirmed LTF	2.6124
CBM-S2	CBM-S2	22.6171	Confirmed LTF	22.6171
CBM-S1	CBM-S1	14.6033	Confirmed LTF	14.6033
MADISON	MADISON	0.7096	Confirmed LTF	0.7096
MEC	MEC	1.9068	Confirmed LTF	1.9068
AA2-074	AA2-074	2.4804	LTF	2.4804

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
97889796	314569	6EARLEYS	DVP	314575	6NUCO TP	DVP	1	DVP_P1-2: LN 2092	single	571.52	153.5	157.04	DC	20.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0506	80/20	0.0506
314574	6EVERETS	0.4657	80/20	0.4657
314582	3KELFORD	0.7842	80/20	0.7842
314589	3MURPHYS	0.1032	80/20	0.1032
314623	3WITAKRS	0.2359	80/20	0.2359
314704	3LAWRENC	0.1825	80/20	0.1825
315126	1ROARAP2	1.4097	80/20	1.4097
315128	1ROARAP4	1.3452	80/20	1.3452
315131	1EDGECSMA (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315132	1EDGECSMB (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315136	1ROSEMG1	2.3511	80/20	2.3511
315137	1ROSEMS1	1.4579	80/20	1.4579
315138	1ROSEMG2	1.1019	80/20	1.1019
315139	1GASTONA	3.4385	80/20	3.4385
315141	1GASTONB	3.4385	80/20	3.4385
315161	1KERR 4	0.5966	80/20	0.5966
315162	1KERR 5	0.5966	80/20	0.5966
315163	1KERR 6	0.5966	80/20	0.5966
315164	1KERR 7	0.5966	80/20	0.5966
315292	1DOMTR78	2.8729	80/20	2.8729
315294	1DOMTR10	21.5849	80/20	21.5849
315601	1CONETOESOL	1.9914	80/20	1.9914
315602	1HOLLOMANSOL	3.5568	80/20	3.5568
315606	3AA2-053SOLA	1.7258	80/20	1.7258
315607	3AA1-063SOLA	1.2920	80/20	1.2920
315608	3AA2-088SOLA	0.7480	80/20	0.7480
315611	6Z1-036WIND	13.8532	80/20	13.8532
315612	3AA2-057SOLA	1.3289	80/20	1.3289
315614	AA2-178 C	3.4313	80/20	3.4313
920591	AA2-165 C	0.1576	80/20	0.1576
920671	AA2-174 C OP	0.0790	80/20	0.0790
922922	AB1-081 C OP	8.5938	80/20	8.5938
923262	AB1-132 C OP (Suspended)	15.2225	80/20	15.2225
923572	AB1-173 C OP	1.8023	80/20	1.8023
923582	AB1-173AC OP	1.8023	80/20	1.8023
923831	AB2-022 C	-0.8983	Adder	-1.06
923911	AB2-031 C O1	1.7889	80/20	1.7889
923991	AB2-040 C O1	5.8740	80/20	5.8740
924151	AB2-059 C OP	1.7471	80/20	1.7471

924501	AB2-099 C (Suspended)	1.0074	80/20	1.0074
924511	AB2-100 C	1.2658	80/20	1.2658
925121	AB2-169 C	2.0776	80/20	2.0776
925171	AB2-174 C O1	0.9219	80/20	0.9219
925591	AC1-034 C	6.5604	80/20	6.5604
925781	AC1-054 C O1	4.5595	80/20	4.5595
926071	AC1-086 C	22.4169	80/20	22.4169
926201	AC1-098 C	8.0374	80/20	8.0374
926211	AC1-099 C	2.6934	80/20	2.6934
927021	AC1-189 C	11.8954	80/20	11.8954
927141	AC1-208 C	10.1471	80/20	10.1471
932631	AC2-084 C	11.4575	80/20	11.4575
933991	AD1-023 C	28.2004	80/20	28.2004
934331	AD1-057 C O1	10.1856	80/20	10.1856
934521	AD1-076 C	113.9255	80/20	113.9255
935111	AD1-144 C	-0.7751	Adder	-0.91
936401	AD2-051 C O1	19.8648	80/20	19.8648
937541	AD2-215 C	-0.7831	Adder	-0.92
938171	AE1-026 C O1	69.7636	80/20	69.7636
938221	AE1-035 C	5.1550	80/20	5.1550
940491	AE2-034 C	14.9192	80/20	14.9192
940571	AE2-044 C	4.2969	80/20	4.2969
941541	AE2-151 C	2.0903	80/20	2.0903
942131	AE2-225 C	-1.0773	Adder	-1.27
942171	AE2-229 C	-1.0773	Adder	-1.27
942471	AE2-260 C O1	8.3171	80/20	8.3171
943171	AE2-346 C	2.4178	80/20	2.4178
943911	AF1-059	8.3370	80/20	8.3370
944141	AF1-082	2.7623	80/20	2.7623
945711	AF1-236 C O1	163.3302	80/20	163.3302
946281	AF1-292 C	0.9859	80/20	0.9859
957521	AF2-046 C	20.4051	80/20	20.4051
957531	AF2-047 C	35.4510	80/20	35.4510
957861	AF2-080 C	10.8039	80/20	10.8039
959231	AF2-214 C	9.2843	80/20	9.2843
959511	AF2-242	13.9123	80/20	13.9123
959731	AF2-264 C	3.3334	80/20	3.3334
960081	AF2-299 C	1.6616	80/20	1.6616
960331	AF2-324 C O1	7.6094	80/20	7.6094
960351	AF2-326 C	2.4520	80/20	2.4520
960831	AF2-374 C	2.1136	80/20	2.1136
WEC	WEC	0.3333	Confirmed LTF	0.3333
LGEE	LGEE	0.6224	Confirmed LTF	0.6224
CPL	CPL	3.7739	Confirmed LTF	3.7739
CBM-W2	CBM-W2	12.8665	Confirmed LTF	12.8665
NY	NY	0.2909	Confirmed LTF	0.2909
CBM-W1	CBM-W1	12.5600	Confirmed LTF	12.5600
TVA	TVA	2.6600	Confirmed LTF	2.6600
CBM-S2	CBM-S2	22.9639	Confirmed LTF	22.9639
CBM-S1	CBM-S1	14.9015	Confirmed LTF	14.9015
MADISON	MADISON	0.7056	Confirmed LTF	0.7056
MEC	MEC	1.9799	Confirmed LTF	1.9799
AA2-074	AA2-074	2.5717	LTF	2.5717

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
96828564	314574	6EVERETS	DVP	304451	6GREENVILE T	CPL	1	DVP_P7-1: LN 2058-2181	tower	478.0	168.24	172.17	DC	18.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314539	3UNCAMP	0.9820	Adder	1.16
314541	3WATKINS	0.2993	Adder	0.35
314574	6EVERETS	0.6442	50/50	0.6442
314582	3KELFORD	0.3890	50/50	0.3890
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.7655	50/50	9.7655
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.7655	50/50	9.7655
315136	1ROSEMG1	1.7016	50/50	1.7016
315137	1ROSEMS1	1.0552	50/50	1.0552
315138	1ROSEMG2	0.7975	50/50	0.7975
315141	1GASTONB	2.3466	50/50	2.3466
315292	1DOMTR78	1.8394	50/50	1.8394
315294	1DOMTR10	13.8199	50/50	13.8199
315601	1CONETOESOL	2.5245	50/50	2.5245
315602	1HOLLOMANSOL	1.6852	50/50	1.6852
315611	6Z1-036WIND	3.5636	Adder	4.19
315614	AA2-178 C	1.4283	50/50	1.4283
900672	V4-068 E	0.1798	Adder	0.21
901082	W1-029 E	13.0911	Adder	15.4
907092	X1-038 E	2.4550	Adder	2.89
913392	Y1-086 E	0.7706	Adder	0.91
916042	Z1-036 E (Suspended)	23.8763	Adder	28.09
917122	Z2-027 E	0.4007	Adder	0.47
917332	Z2-043 E	0.9806	50/50	0.9806
917342	Z2-044 E	0.2246	Adder	0.26
917512	Z2-088 E OP1	6.2724	50/50	6.2724
918492	AA1-063AE OP	2.0465	Adder	2.41
918512	AA1-065 E OP	4.3745	50/50	4.3745
918532	AA1-067 E	1.6006	50/50	1.6006
919152	AA1-139 E	1.8100	Adder	2.13
919692	AA2-053 E OP	2.1059	Adder	2.48
919702	AA2-057 E OP	1.4646	Adder	1.72
920042	AA2-088 E OP	5.2584	Adder	6.19
920592	AA2-165 E	0.2013	Adder	0.24
920672	AA2-174 E OP	0.2433	Adder	0.29
920692	AA2-178 E	3.5486	50/50	3.5486
922922	AB1-081 C OP	3.5909	Adder	4.22
922923	AB1-081 E OP	1.5390	Adder	1.81
923262	AB1-132 C OP (Suspended)	8.8300	Adder	10.39

923263	AB1-132 E OP (Suspended)	3.7843	Adder	4.45
923572	AB1-173 C OP	1.0108	Adder	1.19
923573	AB1-173 E OP	0.4717	Adder	0.55
923582	AB1-173AC OP	1.0108	Adder	1.19
923583	AB1-173AE OP	0.4717	Adder	0.55
923801	AB2-015 C OP	3.6431	Adder	4.29
923802	AB2-015 E OP	2.9873	Adder	3.51
923831	AB2-022 C	0.8079	Adder	0.95
923832	AB2-022 E	0.4350	Adder	0.51
923852	AB2-025 E	0.2989	Adder	0.35
923911	AB2-031 C O1	1.0033	Adder	1.18
923912	AB2-031 E O1	0.4942	Adder	0.58
923991	AB2-040 C O1	3.2946	Adder	3.88
923992	AB2-040 E O1	2.6956	Adder	3.17
924152	AB2-059 E OP	2.1802	Adder	2.56
924501	AB2-099 C (Suspended)	0.5225	50/50	0.5225
924502	AB2-099 E (Suspended)	0.2239	50/50	0.2239
924512	AB2-100 E	2.4516	Adder	2.88
925121	AB2-169 C	1.7406	50/50	1.7406
925122	AB2-169 E	9.0559	50/50	9.0559
925172	AB2-174 E O1	2.7662	Adder	3.25
925591	AC1-034 C	2.7413	Adder	3.23
925592	AC1-034 E	2.0680	Adder	2.43
926071	AC1-086 C	13.0033	Adder	15.3
926072	AC1-086 E	5.9182	Adder	6.96
926201	AC1-098 C	3.4152	Adder	4.02
926202	AC1-098 E	2.0346	Adder	2.39
926211	AC1-099 C	1.1445	Adder	1.35
926212	AC1-099 E	0.6721	Adder	0.79
927021	AC1-189 C	15.5976	50/50	15.5976
927022	AC1-189 E	7.7696	50/50	7.7696
927141	AC1-208 C	4.4227	Adder	5.2
927142	AC1-208 E	1.9639	Adder	2.31
932631	AC2-084 C	4.8685	Adder	5.73
932632	AC2-084 E	2.3979	Adder	2.82
933991	AD1-023 C	13.5602	50/50	13.5602
933992	AD1-023 E	7.3822	50/50	7.3822
934331	AD1-057 C O1	9.0197	50/50	9.0197
934332	AD1-057 E O1	4.8115	50/50	4.8115
934521	AD1-076 C	55.0866	50/50	55.0866
934522	AD1-076 E	28.0500	50/50	28.0500
936401	AD2-051 C O1	9.4655	50/50	9.4655
936402	AD2-051 E O1	4.0644	50/50	4.0644
938171	AE1-026 C O1	33.4414	50/50	33.4414
938172	AE1-026 E O1	8.8226	50/50	8.8226
938221	AE1-035 C	2.4424	50/50	2.4424
938222	AE1-035 E	1.2030	50/50	1.2030
938531	AE1-072 C O1	5.1803	Adder	6.09
938532	AE1-072 E O1	2.7005	Adder	3.18
938771	AE1-103 C O1	1.4730	Adder	1.73
938772	AE1-103 E O1	2.0341	Adder	2.39
940481	AE2-033 C	4.5821	Adder	5.39
940482	AE2-033 E	3.0891	Adder	3.63

940491	AE2-034 C	6.2101	50/50	6.2101
940492	AE2-034 E	2.6615	50/50	2.6615
940571	AE2-044 C	1.7955	Adder	2.11
940572	AE2-044 E	0.7695	Adder	0.91
941101	AE2-104 C O1	0.9879	Adder	1.16
941102	AE2-104 E O1	1.5706	Adder	1.85
941501	AE2-147 C	6.5094	Adder	7.66
941502	AE2-147 E	4.3396	Adder	5.11
941541	AE2-151 C	1.0340	50/50	1.0340
941542	AE2-151 E	0.5567	50/50	0.5567
942131	AE2-225 C	0.6120	Adder	0.72
942132	AE2-225 E	0.4080	Adder	0.48
942171	AE2-229 C	0.6120	Adder	0.72
942172	AE2-229 E	0.4080	Adder	0.48
942471	AE2-260 C O1	5.8246	Adder	6.85
942472	AE2-260 E O1	8.2616	Adder	9.72
942851	AE2-304 C	0.2951	Adder	0.35
942852	AE2-304 E	0.1148	Adder	0.14
943171	AE2-346 C	1.2540	50/50	1.2540
943172	AE2-346 E	0.5374	50/50	0.5374
943611	AF1-032 C	0.4998	Adder	0.59
943612	AF1-032 E	0.2652	Adder	0.31
944141	AF1-082	1.1542	Adder	1.36
944871	AF1-152 C	2.1698	Adder	2.55
944872	AF1-152 E	1.4465	Adder	1.7
945711	AF1-236 C O1	67.9860	50/50	67.9860
945712	AF1-236 E O1	110.9246	50/50	110.9246
946011	AF1-266	3.8356	Adder	4.51
946281	AF1-292 C	0.5991	Adder	0.7
946282	AF1-292 E	0.4039	Adder	0.48
957491	AF2-043 C	0.3244	Adder	0.72
957492	AF2-043 E	0.2162	Adder	0.48
957521	AF2-046 C	12.4840	50/50	12.4840
957522	AF2-046 E	6.2795	50/50	6.2795
957531	AF2-047 C	14.7564	50/50	14.7564
957532	AF2-047 E	7.4226	50/50	7.4226
957791	AF2-073 C (Withdrawn : 07/02/2020)	2.3407	Adder	5.2
957792	AF2-073 E (Withdrawn : 07/02/2020)	1.4965	Adder	3.32
957801	AF2-074 C (Withdrawn : 07/02/2020)	1.0403	Adder	2.31
957802	AF2-074 E (Withdrawn : 07/02/2020)	0.6651	Adder	1.48
957821	AF2-076 C O1	0.9148	Adder	2.03
957822	AF2-076 E O1	0.6099	Adder	1.35
957861	AF2-080 C	14.1664	50/50	14.1664
957862	AF2-080 E	6.2799	50/50	6.2799
957871	AF2-081 C O1	1.4922	Adder	3.31
957872	AF2-081 E O1	0.6395	Adder	1.42
958161	AF2-110 C	0.2159	Adder	0.48
958162	AF2-110 E	0.3376	Adder	0.75
959231	AF2-214 C	2.0561	Adder	4.56
959232	AF2-214 E	3.0825	Adder	6.84

959511	AF2-242	14.1288	50/50	14.1288
959731	AF2-264 C	1.8484	50/50	1.8484
959732	AF2-264 E	0.9104	50/50	0.9104
960081	AF2-299 C	0.5351	Adder	1.19
960082	AF2-299 E	0.3568	Adder	0.79
960122	AF2-303 E O1	12.6277	50/50	12.6277
960331	AF2-324 C O1	8.2165	50/50	8.2165
960332	AF2-324 E O1	4.4113	50/50	4.4113
960351	AF2-326 C	0.4689	Adder	1.04
960352	AF2-326 E	0.1172	Adder	0.26
960831	AF2-374 C	1.0851	50/50	1.0851
960832	AF2-374 E	1.7703	50/50	1.7703
961091	AF2-400 C	0.1043	Adder	0.23
961092	AF2-400 E	0.1711	Adder	0.38
NEWTON	NEWTON	1.6397	Confirmed LTF	1.6397
FARMERCITY	FARMERCITY	0.0953	Confirmed LTF	0.0953
G-007A	G-007A	1.1724	Confirmed LTF	1.1724
VFT	VFT	3.1218	Confirmed LTF	3.1218
CALDERWOOD	CALDERWOOD	1.3494	Confirmed LTF	1.3494
PRAIRIE	PRAIRIE	4.4867	Confirmed LTF	4.4867
AC1-131	AC1-131	5.7225	LTF	5.7225
CHEOAH	CHEOAH	1.3844	Confirmed LTF	1.3844
EDWARDS	EDWARDS	0.4918	Confirmed LTF	0.4918
TILTON	TILTON	0.8662	Confirmed LTF	0.8662
GIBSON	GIBSON	0.7862	Confirmed LTF	0.7862
BLUEG	BLUEG	2.4113	Confirmed LTF	2.4113
TRIMBLE	TRIMBLE	0.7646	Confirmed LTF	0.7646
CATAWBA	CATAWBA	1.4574	Confirmed LTF	1.4574

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
97113697	314623	3WITAKRS	DVP	313854	3CONSLDL	DVP	1	DVP_P1-2: LN 2056-A	single	165.44	99.68	104.36	DC	7.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0280	80/20	0.0280
314582	3KELFORD	0.5209	80/20	0.5209
314589	3MURPHYS	0.0429	80/20	0.0429
314623	3WITAKRS	1.0377	80/20	1.0377
315115	1S HAMPT1	0.5245	80/20	0.5245
315126	1ROARAP2	0.9727	80/20	0.9727
315128	1ROARAP4	0.9282	80/20	0.9282
315136	1ROSEMG1	0.7756	80/20	0.7756
315137	1ROSEMS1	0.4810	80/20	0.4810
315138	1ROSEMG2	0.3635	80/20	0.3635
315139	1GASTONA	1.1138	80/20	1.1138
315141	1GASTONB	1.1138	80/20	1.1138
315606	3AA2-053SOLA	0.9626	80/20	0.9626
315607	3AA1-063SOLA	0.8569	80/20	0.8569
315608	3AA2-088SOLA	0.4767	80/20	0.4767
315612	3AA2-057SOLA	4.6704	80/20	4.6704
920591	AA2-165 C	0.5538	80/20	0.5538
920671	AA2-174 C OP	0.0441	80/20	0.0441
922922	AB1-081 C OP	-7.5198	Adder	-8.85
923262	AB1-132 C OP (Suspended)	4.9308	80/20	4.9308
923572	AB1-173 C OP	1.1052	80/20	1.1052
923582	AB1-173AC OP	1.1052	80/20	1.1052
923801	AB2-015 C OP	2.6445	80/20	2.6445
923911	AB2-031 C O1	1.0971	80/20	1.0971
923991	AB2-040 C O1	3.6023	80/20	3.6023
924501	AB2-099 C (Suspended)	0.2794	80/20	0.2794
925171	AB2-174 C O1	0.5459	80/20	0.5459
925781	AC1-054 C O1	2.5361	80/20	2.5361
926071	AC1-086 C	7.2612	80/20	7.2612
926201	AC1-098 C	14.0774	80/20	14.0774
926211	AC1-099 C	4.7174	80/20	4.7174
927141	AC1-208 C	22.9511	80/20	22.9511
932631	AC2-084 C	20.0678	80/20	20.0678
934331	AD1-057 C O1	3.5977	80/20	3.5977
941541	AE2-151 C	0.5249	80/20	0.5249
943171	AE2-346 C	0.6707	80/20	0.6707
946281	AF1-292 C	0.5176	80/20	0.5176
957521	AF2-046 C	7.7415	80/20	7.7415
959731	AF2-264 C	1.0555	80/20	1.0555
960081	AF2-299 C	0.8724	80/20	0.8724
960831	AF2-374 C	0.6788	80/20	0.6788

961091	AF2-400 C	0.1428	80/20	0.1428
NEWTON	NEWTON	0.5158	Confirmed LTF	0.5158
FARMERCITY	FARMERCITY	0.0297	Confirmed LTF	0.0297
G-007A	G-007A	0.2973	Confirmed LTF	0.2973
VFT	VFT	0.7934	Confirmed LTF	0.7934
CALDERWOOD	CALDERWOOD	0.4130	Confirmed LTF	0.4130
PRAIRIE	PRAIRIE	1.3974	Confirmed LTF	1.3974
CHEOAH	CHEOAH	0.4239	Confirmed LTF	0.4239
EDWARDS	EDWARDS	0.1554	Confirmed LTF	0.1554
TILTON	TILTON	0.2747	Confirmed LTF	0.2747
GIBSON	GIBSON	0.2484	Confirmed LTF	0.2484
BLUEG	BLUEG	0.7656	Confirmed LTF	0.7656
TRIMBLE	TRIMBLE	0.2426	Confirmed LTF	0.2426
CATAWBA	CATAWBA	0.4469	Confirmed LTF	0.4469

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
97889920	314637	6EDENTON	DVP	313885	6WALBMRL	DVP	1	DVP_P1-2: LN 246	single	733.2	118.4	120.16	DC	12.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0325	80/20	0.0325
314574	6EVERETS	0.3446	80/20	0.3446
314582	3KELFORD	0.4969	80/20	0.4969
314589	3MURPHYS	0.0660	80/20	0.0660
314623	3WITAKRS	0.1596	80/20	0.1596
314704	3LAWRENC	0.1176	80/20	0.1176
315126	1ROARAP2	0.9082	80/20	0.9082
315128	1ROARAP4	0.8667	80/20	0.8667
315131	1EDGECEMA (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315132	1EDGECEMB (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315136	1ROSEMG1	1.5269	80/20	1.5269
315137	1ROSEMS1	0.9468	80/20	0.9468
315138	1ROSEMG2	0.7156	80/20	0.7156
315139	1GASTONA	2.2149	80/20	2.2149
315141	1GASTONB	2.2149	80/20	2.2149
315161	1KERR 4	0.3901	80/20	0.3901
315162	1KERR 5	0.3901	80/20	0.3901
315163	1KERR 6	0.3901	80/20	0.3901
315164	1KERR 7	0.3901	80/20	0.3901
315292	1DOMTR78	3.3298	80/20	3.3298
315294	1DOMTR10	25.0180	80/20	25.0180
315601	1CONETOE2SOL	1.4398	80/20	1.4398
315602	1HOLLOMANSOL	2.2223	80/20	2.2223
315606	3AA2-053SOLA	1.1036	80/20	1.1036
315607	3AA1-063SOLA	0.8357	80/20	0.8357
315608	3AA2-088SOLA	0.4899	80/20	0.4899
315611	6Z1-036WIND	-9.4219	Adder	-11.08
315612	3AA2-057SOLA	0.8869	80/20	0.8869
315614	AA2-178 C	5.2604	80/20	5.2604
920591	AA2-165 C	0.1052	80/20	0.1052
920671	AA2-174 C OP	0.0505	80/20	0.0505
922922	AB1-081 C OP	5.9136	80/20	5.9136
923262	AB1-132 C OP (Suspended)	9.8053	80/20	9.8053
923572	AB1-173 C OP	1.1594	80/20	1.1594
923582	AB1-173AC OP	1.1594	80/20	1.1594
923831	AB2-022 C	-1.6400	Adder	-1.93
923911	AB2-031 C O1	1.1508	80/20	1.1508
923991	AB2-040 C O1	3.7787	80/20	3.7787
924151	AB2-059 C OP	1.2022	80/20	1.2022

924501	AB2-099 C (Suspended)	0.6347	80/20	0.6347
924511	AB2-100 C	0.8106	80/20	0.8106
925121	AB2-169 C	2.1767	80/20	2.1767
925171	AB2-174 C O1	0.5928	80/20	0.5928
925591	AC1-034 C	4.5144	80/20	4.5144
925781	AC1-054 C O1	2.9637	80/20	2.9637
926071	AC1-086 C	14.4395	80/20	14.4395
926201	AC1-098 C	5.2053	80/20	5.2053
926211	AC1-099 C	1.7443	80/20	1.7443
927021	AC1-189 C	8.6764	80/20	8.6764
927141	AC1-208 C	6.6480	80/20	6.6480
932631	AC2-084 C	7.4204	80/20	7.4204
933991	AD1-023 C	30.3123	80/20	30.3123
934331	AD1-057 C O1	6.8258	80/20	6.8258
934521	AD1-076 C	142.1118	80/20	142.1118
936401	AD2-051 C O1	12.4167	80/20	12.4167
938171	AE1-026 C O1	68.2899	80/20	68.2899
938221	AE1-035 C	3.2208	80/20	3.2208
940491	AE2-034 C	22.8724	80/20	22.8724
940571	AE2-044 C	2.9568	80/20	2.9568
941541	AE2-151 C	1.3133	80/20	1.3133
942471	AE2-260 C O1	5.3193	80/20	5.3193
942851	AE2-304 C	-0.7263	Adder	-0.85
943171	AE2-346 C	1.5233	80/20	1.5233
943911	AF1-059	5.3880	80/20	5.3880
944141	AF1-082	1.9008	80/20	1.9008
945711	AF1-236 C O1	250.3979	80/20	250.3979
946281	AF1-292 C	0.6331	80/20	0.6331
957521	AF2-046 C	12.9920	80/20	12.9920
957531	AF2-047 C	54.3491	80/20	54.3491
957861	AF2-080 C	7.8803	80/20	7.8803
959231	AF2-214 C	6.3888	80/20	6.3888
959511	AF2-242	13.1813	80/20	13.1813
959731	AF2-264 C	2.1088	80/20	2.1088
960081	AF2-299 C	1.0671	80/20	1.0671
960331	AF2-324 C O1	5.2899	80/20	5.2899
960351	AF2-326 C	1.6838	80/20	1.6838
960831	AF2-374 C	1.3333	80/20	1.3333
WEC	WEC	0.2337	Confirmed LTF	0.2337
LGEE	LGEE	0.4364	Confirmed LTF	0.4364
CPL	CPL	2.6804	Confirmed LTF	2.6804
CBM-W2	CBM-W2	9.0499	Confirmed LTF	9.0499
NY	NY	0.2068	Confirmed LTF	0.2068
CBM-W1	CBM-W1	8.8070	Confirmed LTF	8.8070
TVA	TVA	1.8732	Confirmed LTF	1.8732
CBM-S2	CBM-S2	16.2476	Confirmed LTF	16.2476
CBM-S1	CBM-S1	10.4966	Confirmed LTF	10.4966
MADISON	MADISON	0.5000	Confirmed LTF	0.5000
MEC	MEC	1.3920	Confirmed LTF	1.3920
AA2-074	AA2-074	1.8270	LTF	1.8270

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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
97890017	313845	6HATHAWAY	DVP	314591	6NASH	DVP	1	DVP_P1-2: LN 2058	single	449.32	107.34	109.74	DC	10.78

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.1795	80/20	0.1795
314572	3EMPORIA	0.0495	80/20	0.0495
314574	6EVERETS	0.2332	80/20	0.2332
314582	3KELFORD	0.3455	80/20	0.3455
314589	3MURPHYS	0.0594	80/20	0.0594
314623	3WITAKRS	0.2214	80/20	0.2214
314704	3LAWRENC	0.1687	80/20	0.1687
315115	1S HAMPT1	0.7687	80/20	0.7687
315126	1ROARAP2	1.1465	80/20	1.1465
315128	1ROARAP4	1.0941	80/20	1.0941
315131	1EDGECEMA (Deactivation : 22/04/2019)	26.1992	80/20	26.1992
315132	1EDGECEMB (Deactivation : 22/04/2019)	26.1992	80/20	26.1992
315136	1ROSEMG1	2.9849	80/20	2.9849
315137	1ROSEMS1	1.8510	80/20	1.8510
315138	1ROSEMG2	1.3990	80/20	1.3990
315139	1GASTONA	3.6772	80/20	3.6772
315141	1GASTONB	3.6772	80/20	3.6772
315292	1DOMTR78	0.8777	80/20	0.8777
315294	1DOMTR10	6.5947	80/20	6.5947
315601	1CONETOE2SOL	2.8147	80/20	2.8147
315602	1HOLLOMANSOL	1.0595	80/20	1.0595
315605	6W1-029WIND	0.2467	80/20	0.2467
315606	3AA2-053SOLA	1.1705	80/20	1.1705
315607	3AA1-063SOLA	1.0545	80/20	1.0545
315608	3AA2-088SOLA	0.6494	80/20	0.6494
315611	6Z1-036WIND	2.4749	80/20	2.4749
315612	3AA2-057SOLA	1.1428	80/20	1.1428
315614	AA2-178 C	0.7978	80/20	0.7978
920591	AA2-165 C	0.1355	80/20	0.1355
920671	AA2-174 C OP	0.0536	80/20	0.0536
922922	AB1-081 C OP	10.5510	80/20	10.5510
923262	AB1-132 C OP (Suspended)	16.2792	80/20	16.2792
923572	AB1-173 C OP	1.6336	80/20	1.6336
923582	AB1-173AC OP	1.6336	80/20	1.6336
923801	AB2-015 C OP	3.9820	80/20	3.9820
923911	AB2-031 C O1	1.6215	80/20	1.6215
923991	AB2-040 C O1	5.3244	80/20	5.3244
924151	AB2-059 C OP	2.1450	80/20	2.1450
924501	AB2-099 C (Suspended)	0.4014	80/20	0.4014

924511	AB2-100 C	1.4928	80/20	1.4928
925121	AB2-169 C	0.7426	80/20	0.7426
925171	AB2-174 C O1	0.8593	80/20	0.8593
925591	AC1-034 C	8.0545	80/20	8.0545
925781	AC1-054 C O1	2.8182	80/20	2.8182
926071	AC1-086 C	23.9731	80/20	23.9731
926201	AC1-098 C	5.1403	80/20	5.1403
926211	AC1-099 C	1.7225	80/20	1.7225
927021	AC1-189 C	12.7300	80/20	12.7300
927141	AC1-208 C	7.7959	80/20	7.7959
932631	AC2-084 C	7.3277	80/20	7.3277
933991	AD1-023 C	7.7172	80/20	7.7172
934331	AD1-057 C O1	20.9211	80/20	20.9211
934521	AD1-076 C	30.1201	80/20	30.1201
936401	AD2-051 C O1	6.1146	80/20	6.1146
938171	AE1-026 C O1	19.4515	80/20	19.4515
938221	AE1-035 C	1.5355	80/20	1.5355
938771	AE1-103 C O1	1.5796	80/20	1.5796
940481	AE2-033 C	7.3096	80/20	7.3096
940491	AE2-034 C	3.4688	80/20	3.4688
940571	AE2-044 C	5.2755	80/20	5.2755
941501	AE2-147 C	4.7673	80/20	4.7673
941541	AE2-151 C	0.7628	80/20	0.7628
942471	AE2-260 C O1	10.0150	80/20	10.0150
942851	AE2-304 C	0.2096	80/20	0.2096
943171	AE2-346 C	0.9633	80/20	0.9633
943911	AF1-059	6.8380	80/20	6.8380
944141	AF1-082	3.3914	80/20	3.3914
944871	AF1-152 C	1.5891	80/20	1.5891
945711	AF1-236 C O1	37.9749	80/20	37.9749
946011	AF1-266	6.1187	80/20	6.1187
946281	AF1-292 C	0.9992	80/20	0.9992
957521	AF2-046 C	10.7844	80/20	10.7844
957531	AF2-047 C	8.2425	80/20	8.2425
957791	AF2-073 C (Withdrawn : 07/02/2020)	3.4329	80/20	3.4329
957801	AF2-074 C (Withdrawn : 07/02/2020)	1.5257	80/20	1.5257
957861	AF2-080 C	11.5619	80/20	11.5619
959231	AF2-214 C	11.3988	80/20	11.3988
959511	AF2-242	5.6218	80/20	5.6218
959731	AF2-264 C	1.4952	80/20	1.4952
960081	AF2-299 C	1.6841	80/20	1.6841
960331	AF2-324 C O1	22.0434	80/20	22.0434
960351	AF2-326 C	2.5194	80/20	2.5194
960831	AF2-374 C	0.9226	80/20	0.9226
961091	AF2-400 C	0.2150	80/20	0.2150
NEWTON	NEWTON	1.3582	Confirmed LTF	1.3582
FARMERCITY	FARMERCITY	0.0779	Confirmed LTF	0.0779
G-007A	G-007A	0.9063	Confirmed LTF	0.9063
VFT	VFT	2.4123	Confirmed LTF	2.4123
CALDERWOOD	CALDERWOOD	1.0810	Confirmed LTF	1.0810
PRAIRIE	PRAIRIE	3.6653	Confirmed LTF	3.6653
CHEOAH	CHEOAH	1.1086	Confirmed LTF	1.1086

EDWARDS	EDWARDS	0.4095	Confirmed LTF	0.4095
TILTON	TILTON	0.7245	Confirmed LTF	0.7245
GIBSON	GIBSON	0.6557	Confirmed LTF	0.6557
BLUEG	BLUEG	2.0259	Confirmed LTF	2.0259
TRIMBLE	TRIMBLE	0.6428	Confirmed LTF	0.6428
CATAWBA	CATAWBA	1.1687	Confirmed LTF	1.1687

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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
97708069	313851	6ECITYDP2	DVP	314638	6ELIZ CT	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	137.61	139.03	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314574	6EVERETS	0.2926	50/50	0.2926
314582	3KELFORD	0.4235	50/50	0.4235
314589	3MURPHYS	0.0577	50/50	0.0577
314639	6TANGLEW	1.7857	50/50	1.7857
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.5435	Adder	5.35
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.5435	Adder	5.35
315292	1DOMTR78	2.8229	50/50	2.8229
315294	1DOMTR10	21.2090	50/50	21.2090
315601	1CONETOE2SOL	1.2230	50/50	1.2230
315602	1HOLLOMANSOL	1.8880	50/50	1.8880
315605	6W1-029WIND	3.1396	50/50	3.1396
315606	3AA2-053SOLA	0.9453	50/50	0.9453
315611	6Z1-036WIND	23.6402	50/50	23.6402
315614	AA2-178 C	4.4569	50/50	4.4569
900672	V4-068 E	0.1834	50/50	0.1834
901082	W1-029 E	122.0175	50/50	122.0175
916042	Z1-036 E (Suspended)	158.3896	50/50	158.3896
917122	Z2-027 E	4.4366	50/50	4.4366
917332	Z2-043 E	1.0676	50/50	1.0676
917342	Z2-044 E	0.2871	Adder	0.34
917512	Z2-088 E OP1	3.0386	50/50	3.0386
918512	AA1-065 E OP	4.9008	50/50	4.9008
918532	AA1-067 E	0.7270	50/50	0.7270
919692	AA2-053 E OP	2.3531	50/50	2.3531
919702	AA2-057 E OP	1.7587	Adder	2.07
920592	AA2-165 E	0.2417	Adder	0.28
920671	AA2-174 C OP	0.0433	50/50	0.0433
920672	AA2-174 E OP	0.2719	50/50	0.2719
920692	AA2-178 E	11.0734	50/50	11.0734
922922	AB1-081 C OP	4.2759	Adder	5.03
922923	AB1-081 E OP	1.8325	Adder	2.16
923262	AB1-132 C OP (Suspended)	7.1029	Adder	8.36
923263	AB1-132 E OP (Suspended)	3.0441	Adder	3.58
923831	AB2-022 C	-2.4861	Adder	-2.92
924152	AB2-059 E OP	2.5961	Adder	3.05
924501	AB2-099 C (Suspended)	0.5433	50/50	0.5433
924502	AB2-099 E (Suspended)	0.2328	50/50	0.2328
925121	AB2-169 C	1.8459	50/50	1.8459

925122	AB2-169 E	9.6037	50/50	9.6037
925591	AC1-034 C	3.2642	Adder	3.84
925592	AC1-034 E	2.4625	Adder	2.9
926071	AC1-086 C	10.4598	Adder	12.31
926072	AC1-086 E	4.7606	Adder	5.6
926201	AC1-098 C	4.4402	50/50	4.4402
926202	AC1-098 E	2.6452	50/50	2.6452
926211	AC1-099 C	1.4879	50/50	1.4879
926212	AC1-099 E	0.8739	50/50	0.8739
927021	AC1-189 C	7.3692	50/50	7.3692
927022	AC1-189 E	3.6708	50/50	3.6708
927141	AC1-208 C	5.6768	50/50	5.6768
927142	AC1-208 E	2.5208	50/50	2.5208
932631	AC2-084 C	6.3296	50/50	6.3296
932632	AC2-084 E	3.1176	50/50	3.1176
933991	AD1-023 C	25.7024	50/50	25.7024
933992	AD1-023 E	13.9924	50/50	13.9924
934331	AD1-057 C O1	4.9380	Adder	5.81
934332	AD1-057 E O1	2.6341	Adder	3.1
934521	AD1-076 C	120.4549	50/50	120.4549
934522	AD1-076 E	61.3355	50/50	61.3355
936401	AD2-051 C O1	10.5492	50/50	10.5492
936402	AD2-051 E O1	4.5297	50/50	4.5297
938171	AE1-026 C O1	57.9195	50/50	57.9195
938172	AE1-026 E O1	15.2805	50/50	15.2805
938221	AE1-035 C	2.7363	50/50	2.7363
938222	AE1-035 E	1.3477	50/50	1.3477
940491	AE2-034 C	19.3784	50/50	19.3784
940492	AE2-034 E	8.3050	50/50	8.3050
940571	AE2-044 C	2.1380	Adder	2.52
940572	AE2-044 E	0.9163	Adder	1.08
941501	AE2-147 C	60.6717	50/50	60.6717
941502	AE2-147 E	40.4478	50/50	40.4478
941541	AE2-151 C	1.1192	50/50	1.1192
941542	AE2-151 E	0.6026	50/50	0.6026
942851	AE2-304 C	2.3249	50/50	2.3249
942852	AE2-304 E	0.9041	50/50	0.9041
943171	AE2-346 C	1.3038	50/50	1.3038
943172	AE2-346 E	0.5588	50/50	0.5588
944141	AF1-082	1.3744	Adder	1.62
944871	AF1-152 C	20.2239	50/50	20.2239
944872	AF1-152 E	13.4826	50/50	13.4826
945711	AF1-236 C O1	212.1471	50/50	212.1471
945712	AF1-236 E O1	346.1348	50/50	346.1348
957521	AF2-046 C	11.3093	50/50	11.3093
957522	AF2-046 E	5.6887	50/50	5.6887
957531	AF2-047 C	46.0467	50/50	46.0467
957532	AF2-047 E	23.1618	50/50	23.1618
957861	AF2-080 C	6.6930	50/50	6.6930
957862	AF2-080 E	2.9670	50/50	2.9670
959231	AF2-214 C	2.4483	Adder	5.43
959232	AF2-214 E	3.6705	Adder	8.15
959511	AF2-242	11.1811	50/50	11.1811

959731	AF2-264 C	1.8168	50/50	1.8168
959732	AF2-264 E	0.8948	50/50	0.8948
960122	AF2-303 E O1	3.1139	Adder	6.91
960331	AF2-324 C O1	2.0261	Adder	4.5
960332	AF2-324 E O1	1.0878	Adder	2.41
960351	AF2-326 C	0.6454	Adder	1.43
960352	AF2-326 E	0.1614	Adder	0.36
960831	AF2-374 C	1.1376	50/50	1.1376
960832	AF2-374 E	1.8560	50/50	1.8560
WEC	WEC	0.1944	Confirmed LTF	0.1944
LGEE	LGEE	0.3634	Confirmed LTF	0.3634
CPL	CPL	2.2696	Confirmed LTF	2.2696
CBM-W2	CBM-W2	7.5839	Confirmed LTF	7.5839
NY	NY	0.1841	Confirmed LTF	0.1841
CBM-W1	CBM-W1	7.3183	Confirmed LTF	7.3183
TVA	TVA	1.5736	Confirmed LTF	1.5736
O-066	O-066	2.7082	Confirmed LTF	2.7082
CBM-S2	CBM-S2	13.7333	Confirmed LTF	13.7333
CBM-S1	CBM-S1	8.8012	Confirmed LTF	8.8012
G-007	G-007	0.4233	Confirmed LTF	0.4233
MADISON	MADISON	0.4234	Confirmed LTF	0.4234
MEC	MEC	1.1600	Confirmed LTF	1.1600
AA2-074	AA2-074	1.5467	LTF	1.5467

11.6.12 Index 12

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97889882	314203	6MACKEYS	DVP	314637	6EDENTON	DVP	1	DVP_P1-2: LN 246	single	731.32	122.5	124.27	DC	12.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0325	80/20	0.0325
314574	6EVERETS	0.3446	80/20	0.3446
314582	3KELFORD	0.4969	80/20	0.4969
314589	3MURPHYS	0.0660	80/20	0.0660
314623	3WITAKRS	0.1596	80/20	0.1596
314704	3LAWRENC	0.1176	80/20	0.1176
315126	1ROARAP2	0.9082	80/20	0.9082
315128	1ROARAP4	0.8667	80/20	0.8667
315131	1EDGECEMA (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315132	1EDGECEMB (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315136	1ROSEMG1	1.5269	80/20	1.5269
315137	1ROSEMS1	0.9468	80/20	0.9468
315138	1ROSEMG2	0.7156	80/20	0.7156
315139	1GASTONA	2.2149	80/20	2.2149
315141	1GASTONB	2.2149	80/20	2.2149
315161	1KERR 4	0.3901	80/20	0.3901
315162	1KERR 5	0.3901	80/20	0.3901
315163	1KERR 6	0.3901	80/20	0.3901
315164	1KERR 7	0.3901	80/20	0.3901
315292	1DOMTR78	3.3298	80/20	3.3298
315294	1DOMTR10	25.0180	80/20	25.0180
315601	1CONETOE2SOL	1.4398	80/20	1.4398
315602	1HOLLOMANSOL	2.2223	80/20	2.2223
315606	3AA2-053SOLA	1.1036	80/20	1.1036
315607	3AA1-063SOLA	0.8357	80/20	0.8357
315608	3AA2-088SOLA	0.4899	80/20	0.4899
315611	6Z1-036WIND	-9.4219	Adder	-11.08
315612	3AA2-057SOLA	0.8869	80/20	0.8869
315614	AA2-178 C	5.2604	80/20	5.2604
920591	AA2-165 C	0.1052	80/20	0.1052
920671	AA2-174 C OP	0.0505	80/20	0.0505
922922	AB1-081 C OP	5.9136	80/20	5.9136
923262	AB1-132 C OP (Suspended)	9.8053	80/20	9.8053
923572	AB1-173 C OP	1.1594	80/20	1.1594
923582	AB1-173AC OP	1.1594	80/20	1.1594
923831	AB2-022 C	-1.6400	Adder	-1.93
923911	AB2-031 C O1	1.1508	80/20	1.1508
923991	AB2-040 C O1	3.7787	80/20	3.7787
924151	AB2-059 C OP	1.2022	80/20	1.2022

924501	AB2-099 C (Suspended)	0.6347	80/20	0.6347
924511	AB2-100 C	0.8106	80/20	0.8106
925121	AB2-169 C	2.1767	80/20	2.1767
925171	AB2-174 C O1	0.5928	80/20	0.5928
925591	AC1-034 C	4.5144	80/20	4.5144
925781	AC1-054 C O1	2.9637	80/20	2.9637
926071	AC1-086 C	14.4395	80/20	14.4395
926201	AC1-098 C	5.2053	80/20	5.2053
926211	AC1-099 C	1.7443	80/20	1.7443
927021	AC1-189 C	8.6764	80/20	8.6764
927141	AC1-208 C	6.6480	80/20	6.6480
932631	AC2-084 C	7.4204	80/20	7.4204
933991	AD1-023 C	30.3123	80/20	30.3123
934331	AD1-057 C O1	6.8258	80/20	6.8258
934521	AD1-076 C	142.1118	80/20	142.1118
936401	AD2-051 C O1	12.4167	80/20	12.4167
938171	AE1-026 C O1	68.2899	80/20	68.2899
938221	AE1-035 C	3.2208	80/20	3.2208
940491	AE2-034 C	22.8724	80/20	22.8724
940571	AE2-044 C	2.9568	80/20	2.9568
941541	AE2-151 C	1.3133	80/20	1.3133
942471	AE2-260 C O1	5.3193	80/20	5.3193
942851	AE2-304 C	-0.7263	Adder	-0.85
943171	AE2-346 C	1.5233	80/20	1.5233
943911	AF1-059	5.3880	80/20	5.3880
944141	AF1-082	1.9008	80/20	1.9008
945711	AF1-236 C O1	250.3979	80/20	250.3979
946281	AF1-292 C	0.6331	80/20	0.6331
957521	AF2-046 C	12.9920	80/20	12.9920
957531	AF2-047 C	54.3491	80/20	54.3491
957861	AF2-080 C	7.8803	80/20	7.8803
959231	AF2-214 C	6.3888	80/20	6.3888
959511	AF2-242	13.1813	80/20	13.1813
959731	AF2-264 C	2.1088	80/20	2.1088
960081	AF2-299 C	1.0671	80/20	1.0671
960331	AF2-324 C O1	5.2899	80/20	5.2899
960351	AF2-326 C	1.6838	80/20	1.6838
960831	AF2-374 C	1.3333	80/20	1.3333
WEC	WEC	0.2337	Confirmed LTF	0.2337
LGEE	LGEE	0.4364	Confirmed LTF	0.4364
CPL	CPL	2.6804	Confirmed LTF	2.6804
CBM-W2	CBM-W2	9.0499	Confirmed LTF	9.0499
NY	NY	0.2068	Confirmed LTF	0.2068
CBM-W1	CBM-W1	8.8070	Confirmed LTF	8.8070
TVA	TVA	1.8732	Confirmed LTF	1.8732
CBM-S2	CBM-S2	16.2476	Confirmed LTF	16.2476
CBM-S1	CBM-S1	10.4966	Confirmed LTF	10.4966
MADISON	MADISON	0.5000	Confirmed LTF	0.5000
MEC	MEC	1.3920	Confirmed LTF	1.3920
AA2-074	AA2-074	1.8270	LTF	1.8270

11.6.13 Index 13

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97889852	314209	6SKIIF CREEK	DVP	314386	6KINGS M	DVP	1	DVP_P1-2: LN 567	single	441.8	145.31	145.89	DC	5.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314295	6BIRDNECK	0.0216	80/20	0.0216
314421	6WINCHST	0.1174	80/20	0.1174
314491	3PENDLTN	0.1610	80/20	0.1610
314507	3THOMPSN	0.1616	80/20	0.1616
315092	1YORKTN3	21.6871	80/20	21.6871
315098	1CHESPKA	0.2137	80/20	0.2137
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3850	80/20	1.3850
315108	1ELIZAR1	1.5744	80/20	1.5744
315109	1ELIZAR2	1.5470	80/20	1.5470
315110	1ELIZAR3	1.5945	80/20	1.5945
315233	1SURRY 2	15.7051	80/20	15.7051
315260	1GOSPORTA	0.1706	80/20	0.1706
315261	1GOSPORTB	0.2179	80/20	0.2179
315262	1GOSPORTC	0.1849	80/20	0.1849
315294	1DOMTR10	3.3373	Adder	3.93
315603	6AA1-139SOLA	1.1905	80/20	1.1905
315611	6Z1-036WIND	2.4670	Adder	2.9
923801	AB2-015 C OP	2.7115	Adder	3.19
923831	AB2-022 C	0.8832	Adder	1.04
924501	AB2-099 C (Suspended)	0.1652	Adder	0.19
925061	AB2-161 C O1 (Suspended)	0.8266	Adder	0.97
925861	AC1-065 C	-2.2607	Adder	-2.66
926661	AC1-147 C	1.0474	80/20	1.0474
926751	AC1-161 C O1	15.6813	80/20	15.6813
926781	AC1-164 C	-14.4570	Adder	-17.01
932041	AC2-012 C	4.7384	80/20	4.7384
932501	AC2-070 C	-0.4125	Adder	-0.49
932591	AC2-079 C O1	1.6890	Adder	1.99
932831	AC2-110 C	-0.9043	Adder	-1.06
933261	AC2-137 C	-0.6062	Adder	-0.71
933271	AC2-138 C	-0.5379	Adder	-0.63
933291	AC2-141 C	15.6813	80/20	15.6813
933731	AC2-196 C	0.8356	80/20	0.8356
933991	AD1-023 C	4.1258	Adder	4.85
934061	AD1-033 C	3.5087	80/20	3.5087
934191	AD1-046 C	-2.7204	Adder	-3.2
934521	AD1-076 C	17.4570	Adder	20.54
934571	AD1-082 C	1.8837	Adder	2.22
935111	AD1-144 C	0.8444	80/20	0.8444
936151	AD2-021	-0.0691	Adder	-0.08

936301	AD2-039 C	-0.9043	Adder	-1.06
936341	AD2-044 C	-0.1681	Adder	-0.2
936401	AD2-051 C O1	2.5659	Adder	3.02
936661	AD2-085 C	1.0055	Adder	1.18
937221	AD2-160 C O1	2.7080	80/20	2.7080
937251	AD2-164 (Withdrawn : 06/30/2020)	3.8843	80/20	3.8843
937541	AD2-215 C	0.8531	80/20	0.8531
938031	AE1-004 C	-0.9043	Adder	-1.06
938171	AE1-026 C O1	9.9367	Adder	11.69
938221	AE1-035 C	0.6610	Adder	0.78
938531	AE1-072 C O1	8.0586	80/20	8.0586
938771	AE1-103 C O1	1.1652	Adder	1.37
938961	AE1-124 C	-1.1785	Adder	-1.39
939311	AE1-162 C	0.7760	Adder	0.91
939411	AE1-173 C	26.8994	Adder	31.65
939421	AE1-174 C (Withdrawn : 06/16/2020)	0.1971	80/20	0.1971
939431	AE1-175 C	1.3107	80/20	1.3107
940061	AE2-000BC O1	3.9153	Adder	4.61
940251	AE2-007 O1	80.6978	80/20	80.6978
940491	AE2-034 C	2.4240	Adder	2.85
940641	AE2-051 C O1	4.5686	Adder	5.37
940891	AE2-078 C	1.1039	80/20	1.1039
940901	AE2-079 C	1.1039	80/20	1.1039
941031	AE2-094 C	8.8183	Adder	10.37
941101	AE2-104 C O1	1.2070	Adder	1.42
941281	AE2-122 C O1	13.2491	80/20	13.2491
941291	AE2-123 C O1	13.6160	80/20	13.6160
941301	AE2-124 C O1	12.3849	80/20	12.3849
941501	AE2-147 C	5.9708	Adder	7.02
941541	AE2-151 C	0.3058	Adder	0.36
941591	AE2-156 O1	8.3250	80/20	8.3250
942131	AE2-225 C	0.9862	80/20	0.9862
942171	AE2-229 C	0.9862	80/20	0.9862
942341	AE2-247 C	0.4344	Adder	0.51
942401	AE2-253 C	2.8483	80/20	2.8483
942851	AE2-304 C	0.2332	Adder	0.27
943171	AE2-346 C	0.3965	Adder	0.47
943461	AF1-017 C	0.3930	Adder	0.46
943611	AF1-032 C	0.8054	80/20	0.8054
943621	AF1-033 C	1.1039	80/20	1.1039
944011	AF1-069 C	2.8813	Adder	3.39
944501	AF1-115 C O1	3.3619	80/20	3.3619
944581	AF1-123 C O1	22.7964	80/20	22.7964
944591	AF1-124 C O1	22.7964	80/20	22.7964
944601	AF1-125 C O1	22.7964	80/20	22.7964
944871	AF1-152 C	1.9903	Adder	2.34
945361	AF1-201 C O1	5.6136	Adder	6.6
945711	AF1-236 C O1	26.5374	Adder	31.22
957491	AF2-043 C	0.9862	80/20	0.9862
957521	AF2-046 C	2.5169	Adder	5.59
957531	AF2-047 C	3.0528	Adder	6.78
957631	AF2-057	1.6626	80/20	1.6626

957791	AF2-073 C (Withdrawn : 07/02/2020)	1.8633	Adder	4.14
957801	AF2-074 C (Withdrawn : 07/02/2020)	0.8282	Adder	1.84
957821	AF2-076 C O1	1.0901	Adder	2.42
957871	AF2-081 C O1	4.6010	80/20	4.6010
958161	AF2-110 C	0.2637	Adder	0.59
959511	AF2-242	1.1642	Adder	2.58
959731	AF2-264 C	0.3365	Adder	0.75
960101	AF2-301 C	1.5672	80/20	1.5672
960831	AF2-374 C	0.1789	Adder	0.4
961091	AF2-400 C	0.0776	Adder	0.17
961111	AF2-402 C O1	0.1519	Adder	0.34
WEC	WEC	0.1269	Confirmed LTF	0.1269
LGEE	LGEE	0.2436	Confirmed LTF	0.2436
CPL	CPL	1.8952	Confirmed LTF	1.8952
CBM-W2	CBM-W2	6.0197	Confirmed LTF	6.0197
NY	NY	0.3661	Confirmed LTF	0.3661
CBM-W1	CBM-W1	4.6037	Confirmed LTF	4.6037
TVA	TVA	1.3314	Confirmed LTF	1.3314
CBM-S2	CBM-S2	12.4848	Confirmed LTF	12.4848
CBM-S1	CBM-S1	7.2676	Confirmed LTF	7.2676
MADISON	MADISON	0.4536	Confirmed LTF	0.4536
MEC	MEC	0.8342	Confirmed LTF	0.8342

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
97708030	314282	6CARSON	DVP	314285	6CHRL249	DVP	1	DVP_P4-2: 562T563	breaker	684.0	169.42	170.13	DC	10.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.4961	50/50	0.4961
314572	3EMPORIA	0.0563	50/50	0.0563
314704	3LAWRENC	0.2225	50/50	0.2225
314947	8GREENSVILLE	28.5101	50/50	28.5101
315073	1STONECA	-2.3873	Adder	-2.81
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.9509	Adder	4.65
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.9509	Adder	4.65
315136	1ROSEMG1	1.4393	50/50	1.4393
315137	1ROSEMS1	0.8925	50/50	0.8925
315138	1ROSEMG2	0.6746	50/50	0.6746
315139	1GASTONA	2.1424	50/50	2.1424
315141	1GASTONB	2.1424	50/50	2.1424
315294	1DOMTR10	3.2051	Adder	3.77
900672	V4-068 E	0.1060	Adder	0.12
917332	Z2-043 E	0.4484	Adder	0.53
917342	Z2-044 E	0.2477	Adder	0.29
917512	Z2-088 E OP1	1.5190	Adder	1.79
918492	AA1-063AE OP	1.7603	Adder	2.07
918512	AA1-065 E OP	1.3711	Adder	1.61
918532	AA1-067 E	0.2627	Adder	0.31
919692	AA2-053 E OP	1.7687	Adder	2.08
919702	AA2-057 E OP	1.4762	Adder	1.74
920042	AA2-088 E OP	3.5841	Adder	4.22
920592	AA2-165 E	0.2029	Adder	0.24
920672	AA2-174 E OP	0.2044	Adder	0.24
922922	AB1-081 C OP	3.7942	Adder	4.46
922923	AB1-081 E OP	1.6261	Adder	1.91
923262	AB1-132 C OP (Suspended)	9.4844	50/50	9.4844
923263	AB1-132 E OP (Suspended)	4.0648	50/50	4.0648
923572	AB1-173 C OP	1.5987	50/50	1.5987
923573	AB1-173 E OP	0.7460	50/50	0.7460
923582	AB1-173AC OP	1.5987	50/50	1.5987
923583	AB1-173AE OP	0.7460	50/50	0.7460
923852	AB2-025 E	1.2920	50/50	1.2920
923911	AB2-031 C O1	1.5868	50/50	1.5868
923912	AB2-031 E O1	0.7816	50/50	0.7816
923991	AB2-040 C O1	5.2105	50/50	5.2105
923992	AB2-040 E O1	4.2631	50/50	4.2631

924022	AB2-043 E O1	1.0637	Adder	1.25
924152	AB2-059 E OP	2.3036	Adder	2.71
924162	AB2-060 E OP	1.5970	Adder	1.88
924301	AB2-077 C O1 (Suspended)	0.7548	Adder	0.89
924302	AB2-077 E O1 (Suspended)	0.5032	Adder	0.59
924311	AB2-078 C O1 (Suspended)	0.7548	Adder	0.89
924312	AB2-078 E O1 (Suspended)	0.5032	Adder	0.59
924321	AB2-079 C O1 (Suspended)	0.7548	Adder	0.89
924322	AB2-079 E O1 (Suspended)	0.5032	Adder	0.59
924501	AB2-099 C (Suspended)	0.2125	Adder	0.25
924502	AB2-099 E (Suspended)	0.0911	Adder	0.11
924511	AB2-100 C	1.8239	50/50	1.8239
924512	AB2-100 E	5.2081	50/50	5.2081
925122	AB2-169 E	1.8308	Adder	2.15
925171	AB2-174 C O1	0.8914	50/50	0.8914
925172	AB2-174 E O1	4.6755	50/50	4.6755
925591	AC1-034 C	2.8965	Adder	3.41
925592	AC1-034 E	2.1851	Adder	2.57
925611	AC1-036 C	0.3066	Adder	0.36
925612	AC1-036 E	0.5003	Adder	0.59
925781	AC1-054 C O1	3.1054	Adder	3.65
925782	AC1-054 E O1	1.4306	Adder	1.68
926071	AC1-086 C	13.9670	50/50	13.9670
926072	AC1-086 E	6.3568	50/50	6.3568
926201	AC1-098 C	2.6095	Adder	3.07
926202	AC1-098 E	1.5546	Adder	1.83
926211	AC1-099 C	0.8745	Adder	1.03
926212	AC1-099 E	0.5136	Adder	0.6
926271	AC1-105 C O1 (Suspended)	1.9829	Adder	2.33
926272	AC1-105 E O1 (Suspended)	0.9871	Adder	1.16
927021	AC1-189 C	3.2944	Adder	3.88
927022	AC1-189 E	1.6410	Adder	1.93
927141	AC1-208 C	4.0314	Adder	4.74
927142	AC1-208 E	1.7901	Adder	2.11
927251	AC1-221 C	0.7780	Adder	0.92
927252	AC1-221 E	0.7780	Adder	0.92
927261	AC1-222 C	1.2345	Adder	1.45
927262	AC1-222 E	1.1752	Adder	1.38
932631	AC2-084 C	3.7200	Adder	4.38
932632	AC2-084 E	1.8322	Adder	2.16
932761	AC2-100 C	1.7904	Adder	2.11
932762	AC2-100 E	0.8739	Adder	1.03
933991	AD1-023 C	3.8491	Adder	4.53
933992	AD1-023 E	2.0955	Adder	2.47
934311	AD1-055 C	0.8571	Adder	1.01
934312	AD1-055 E	0.2210	Adder	0.26

934331	AD1-057 C O1	4.9302	Adder	5.8
934332	AD1-057 E O1	2.6300	Adder	3.09
934341	AD1-058 C	1.9503	Adder	2.29
934342	AD1-058 E	0.4956	Adder	0.58
934611	AD1-087 C O1	3.0816	Adder	3.63
934612	AD1-087 E O1	1.4483	Adder	1.7
934991	AD1-131 C	0.6394	Adder	0.75
934992	AD1-131 E	0.4263	Adder	0.5
935171	AD1-152 C O1	3.0624	Adder	3.6
935172	AD1-152 E O1	2.0416	Adder	2.4
936261	AD2-033 C	4.3247	Adder	5.09
936262	AD2-033 E	2.8832	Adder	3.39
936361	AD2-046 C O1	3.5694	Adder	4.2
936362	AD2-046 E O1	1.6414	Adder	1.93
936401	AD2-051 C O1	3.0488	Adder	3.59
936402	AD2-051 E O1	1.3091	Adder	1.54
936481	AD2-063 C O1	5.3473	Adder	6.29
936482	AD2-063 E O1	3.5352	Adder	4.16
936762	AD2-097 E	-3.4441	Adder	-4.05
937481	AD2-202 C O1	0.8167	Adder	0.96
937482	AD2-202 E O1	0.4594	Adder	0.54
938171	AE1-026 C O1	9.7010	Adder	11.41
938172	AE1-026 E O1	2.5594	Adder	3.01
938221	AE1-035 C	0.7655	Adder	0.9
938222	AE1-035 E	0.3770	Adder	0.44
938491	AE1-068 C O1	33.0088	50/50	33.0088
938492	AE1-068 E O1	18.2312	50/50	18.2312
938501	AE1-069 C O1	25.8063	50/50	25.8063
938502	AE1-069 E O1	14.7537	50/50	14.7537
939181	AE1-148 C O1	3.5109	Adder	4.13
939182	AE1-148 E O1	2.3406	Adder	2.75
939411	AE1-173 C	31.3874	Adder	36.93
939412	AE1-173 E	20.9250	Adder	24.62
940241	AE2-006	0.1560	Adder	0.18
940471	AE2-031 C	17.9777	50/50	17.9777
940472	AE2-031 E	11.9851	50/50	11.9851
940481	AE2-033 C	17.9557	50/50	17.9557
940482	AE2-033 E	12.1050	50/50	12.1050
940542	AE2-040 BAT	4.1423	50/50	4.1423
940571	AE2-044 C	1.8971	Adder	2.23
940572	AE2-044 E	0.8130	Adder	0.96
940661	AE2-053 O1	1.3003	Adder	1.53
941031	AE2-094 C	21.6524	50/50	21.6524
941032	AE2-094 E	9.6976	50/50	9.6976
941541	AE2-151 C	0.3965	Adder	0.47
941542	AE2-151 E	0.2135	Adder	0.25
942451	AE2-258	0.8875	Adder	1.04
942471	AE2-260 C O1	13.5157	50/50	13.5157
942472	AE2-260 E O1	19.1703	50/50	19.1703
942931	AE2-313 C	19.4655	50/50	19.4655
942932	AE2-313 E	12.9770	50/50	12.9770
943171	AE2-346 C	0.5101	Adder	0.6
943172	AE2-346 E	0.2186	Adder	0.26

943901	AF1-058 C	0.6841	Adder	0.8
943902	AF1-058 E	0.4561	Adder	0.54
943911	AF1-059	10.1430	50/50	10.1430
944011	AF1-069 C	7.0746	50/50	7.0746
944012	AF1-069 E	2.7483	50/50	2.7483
944141	AF1-082	1.2196	Adder	1.43
945811	AF1-246 C O1	3.0955	Adder	3.64
945812	AF1-246 E O1	4.2748	Adder	5.03
946011	AF1-266	15.0304	50/50	15.0304
946281	AF1-292 C	1.2035	50/50	1.2035
946282	AF1-292 E	0.8114	50/50	0.8114
957481	AF2-042 C O1	11.6445	Adder	25.85
957482	AF2-042 E O1	7.7630	Adder	17.23
957521	AF2-046 C	3.1764	Adder	7.05
957522	AF2-046 E	1.5978	Adder	3.55
957861	AF2-080 C	1.5858	Adder	3.52
957862	AF2-080 E	0.7030	Adder	1.56
958142	AF2-108 BAT	2.9355	50/50	2.9355
959231	AF2-214 C	2.1725	Adder	4.82
959232	AF2-214 E	3.2570	Adder	7.23
959311	AF2-222 C	2.7922	Adder	6.2
959312	AF2-222 E	1.8708	Adder	4.15
959511	AF2-242	1.3876	Adder	3.08
959731	AF2-264 C	0.4290	Adder	0.95
959732	AF2-264 E	0.2113	Adder	0.47
959751	AF2-266 O1	1.7973	Adder	3.99
960061	AF2-297 C O1	1.4503	Adder	3.22
960062	AF2-297 E O1	0.9669	Adder	2.15
960081	AF2-299 C	2.0285	50/50	2.0285
960082	AF2-299 E	1.3523	50/50	1.3523
960122	AF2-303 E O1	2.7077	Adder	6.01
960331	AF2-324 C O1	1.7618	Adder	3.91
960332	AF2-324 E O1	0.9459	Adder	2.1
960351	AF2-326 C	0.5735	Adder	1.27
960352	AF2-326 E	0.1434	Adder	0.32
960811	AF2-372 C	0.2527	Adder	0.56
960812	AF2-372 E	0.4124	Adder	0.92
960821	AF2-373 C	0.1796	Adder	0.4
960822	AF2-373 E	0.2695	Adder	0.6
960831	AF2-374 C	0.2693	Adder	0.6
960832	AF2-374 E	0.4394	Adder	0.98
WEC	WEC	0.3667	Confirmed LTF	0.3667
LGEE	LGEE	0.6920	Confirmed LTF	0.6920
CPL	CPL	3.8076	Confirmed LTF	3.8076
CBM-W2	CBM-W2	14.7420	Confirmed LTF	14.7420
NY	NY	0.5176	Confirmed LTF	0.5176
CBM-W1	CBM-W1	13.6859	Confirmed LTF	13.6859
TVA	TVA	3.0996	Confirmed LTF	3.0996
O-066	O-066	7.3450	Confirmed LTF	7.3450
CBM-S2	CBM-S2	25.9522	Confirmed LTF	25.9522
CBM-S1	CBM-S1	17.2786	Confirmed LTF	17.2786
G-007	G-007	1.1461	Confirmed LTF	1.1461
MADISON	MADISON	0.8669	Confirmed LTF	0.8669

MEC	MEC	2.2214	Confirmed LTF	2.2214
AA2-074	AA2-074	2.5952	LTF	2.5952

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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
97708040	314285	6CHRL249	DVP	314316	6LOCKS	DVP	1	DVP_P4-2: 562T563	breaker	684.0	166.34	167.04	DC	10.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.4961	50/50	0.4961
314572	3EMPORIA	0.0563	50/50	0.0563
314704	3LAWRENC	0.2225	50/50	0.2225
314947	8GREENSVILLE	28.5101	50/50	28.5101
315073	1STONECA	-2.3873	Adder	-2.81
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.9509	Adder	4.65
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.9509	Adder	4.65
315136	1ROSEMG1	1.4393	50/50	1.4393
315137	1ROSEMS1	0.8925	50/50	0.8925
315138	1ROSEMG2	0.6746	50/50	0.6746
315139	1GASTONA	2.1424	50/50	2.1424
315141	1GASTONB	2.1424	50/50	2.1424
315294	1DOMTR10	3.2051	Adder	3.77
900672	V4-068 E	0.1060	Adder	0.12
917332	Z2-043 E	0.4484	Adder	0.53
917342	Z2-044 E	0.2477	Adder	0.29
917512	Z2-088 E OP1	1.5190	Adder	1.79
918492	AA1-063AE OP	1.7603	Adder	2.07
918512	AA1-065 E OP	1.3711	Adder	1.61
918532	AA1-067 E	0.2627	Adder	0.31
919692	AA2-053 E OP	1.7687	Adder	2.08
919702	AA2-057 E OP	1.4762	Adder	1.74
920042	AA2-088 E OP	3.5841	Adder	4.22
920592	AA2-165 E	0.2029	Adder	0.24
920672	AA2-174 E OP	0.2044	Adder	0.24
922922	AB1-081 C OP	3.7942	Adder	4.46
922923	AB1-081 E OP	1.6261	Adder	1.91
923262	AB1-132 C OP (Suspended)	9.4844	50/50	9.4844
923263	AB1-132 E OP (Suspended)	4.0648	50/50	4.0648
923572	AB1-173 C OP	1.5987	50/50	1.5987
923573	AB1-173 E OP	0.7460	50/50	0.7460
923582	AB1-173AC OP	1.5987	50/50	1.5987
923583	AB1-173AE OP	0.7460	50/50	0.7460
923852	AB2-025 E	1.2920	50/50	1.2920
923911	AB2-031 C O1	1.5868	50/50	1.5868
923912	AB2-031 E O1	0.7816	50/50	0.7816
923991	AB2-040 C O1	5.2105	50/50	5.2105
923992	AB2-040 E O1	4.2631	50/50	4.2631

924022	AB2-043 E O1	1.0637	Adder	1.25
924152	AB2-059 E OP	2.3036	Adder	2.71
924162	AB2-060 E OP	1.5970	Adder	1.88
924301	AB2-077 C O1 (Suspended)	0.7548	Adder	0.89
924302	AB2-077 E O1 (Suspended)	0.5032	Adder	0.59
924311	AB2-078 C O1 (Suspended)	0.7548	Adder	0.89
924312	AB2-078 E O1 (Suspended)	0.5032	Adder	0.59
924321	AB2-079 C O1 (Suspended)	0.7548	Adder	0.89
924322	AB2-079 E O1 (Suspended)	0.5032	Adder	0.59
924501	AB2-099 C (Suspended)	0.2125	Adder	0.25
924502	AB2-099 E (Suspended)	0.0911	Adder	0.11
924511	AB2-100 C	1.8239	50/50	1.8239
924512	AB2-100 E	5.2081	50/50	5.2081
925122	AB2-169 E	1.8308	Adder	2.15
925171	AB2-174 C O1	0.8914	50/50	0.8914
925172	AB2-174 E O1	4.6755	50/50	4.6755
925591	AC1-034 C	2.8965	Adder	3.41
925592	AC1-034 E	2.1851	Adder	2.57
925611	AC1-036 C	0.3066	Adder	0.36
925612	AC1-036 E	0.5003	Adder	0.59
925781	AC1-054 C O1	3.1054	Adder	3.65
925782	AC1-054 E O1	1.4306	Adder	1.68
926071	AC1-086 C	13.9670	50/50	13.9670
926072	AC1-086 E	6.3568	50/50	6.3568
926201	AC1-098 C	2.6095	Adder	3.07
926202	AC1-098 E	1.5546	Adder	1.83
926211	AC1-099 C	0.8745	Adder	1.03
926212	AC1-099 E	0.5136	Adder	0.6
926271	AC1-105 C O1 (Suspended)	1.9829	Adder	2.33
926272	AC1-105 E O1 (Suspended)	0.9871	Adder	1.16
927021	AC1-189 C	3.2944	Adder	3.88
927022	AC1-189 E	1.6410	Adder	1.93
927141	AC1-208 C	4.0314	Adder	4.74
927142	AC1-208 E	1.7901	Adder	2.11
927251	AC1-221 C	0.7780	Adder	0.92
927252	AC1-221 E	0.7780	Adder	0.92
927261	AC1-222 C	1.2345	Adder	1.45
927262	AC1-222 E	1.1752	Adder	1.38
932631	AC2-084 C	3.7200	Adder	4.38
932632	AC2-084 E	1.8322	Adder	2.16
932761	AC2-100 C	1.7904	Adder	2.11
932762	AC2-100 E	0.8739	Adder	1.03
933991	AD1-023 C	3.8491	Adder	4.53
933992	AD1-023 E	2.0955	Adder	2.47
934311	AD1-055 C	0.8571	Adder	1.01
934312	AD1-055 E	0.2210	Adder	0.26

934331	AD1-057 C O1	4.9302	Adder	5.8
934332	AD1-057 E O1	2.6300	Adder	3.09
934341	AD1-058 C	1.9503	Adder	2.29
934342	AD1-058 E	0.4956	Adder	0.58
934611	AD1-087 C O1	3.0816	Adder	3.63
934612	AD1-087 E O1	1.4483	Adder	1.7
934991	AD1-131 C	0.6394	Adder	0.75
934992	AD1-131 E	0.4263	Adder	0.5
935171	AD1-152 C O1	3.0624	Adder	3.6
935172	AD1-152 E O1	2.0416	Adder	2.4
936261	AD2-033 C	4.3247	Adder	5.09
936262	AD2-033 E	2.8832	Adder	3.39
936361	AD2-046 C O1	3.5694	Adder	4.2
936362	AD2-046 E O1	1.6414	Adder	1.93
936401	AD2-051 C O1	3.0488	Adder	3.59
936402	AD2-051 E O1	1.3091	Adder	1.54
936481	AD2-063 C O1	5.3473	Adder	6.29
936482	AD2-063 E O1	3.5352	Adder	4.16
936762	AD2-097 E	-3.4441	Adder	-4.05
937481	AD2-202 C O1	0.8167	Adder	0.96
937482	AD2-202 E O1	0.4594	Adder	0.54
938171	AE1-026 C O1	9.7010	Adder	11.41
938172	AE1-026 E O1	2.5594	Adder	3.01
938221	AE1-035 C	0.7655	Adder	0.9
938222	AE1-035 E	0.3770	Adder	0.44
938491	AE1-068 C O1	33.0088	50/50	33.0088
938492	AE1-068 E O1	18.2312	50/50	18.2312
938501	AE1-069 C O1	25.8063	50/50	25.8063
938502	AE1-069 E O1	14.7537	50/50	14.7537
939181	AE1-148 C O1	3.5109	Adder	4.13
939182	AE1-148 E O1	2.3406	Adder	2.75
939411	AE1-173 C	31.3874	Adder	36.93
939412	AE1-173 E	20.9250	Adder	24.62
940241	AE2-006	0.1560	Adder	0.18
940471	AE2-031 C	17.9777	50/50	17.9777
940472	AE2-031 E	11.9851	50/50	11.9851
940481	AE2-033 C	17.9557	50/50	17.9557
940482	AE2-033 E	12.1050	50/50	12.1050
940542	AE2-040 BAT	4.1423	50/50	4.1423
940571	AE2-044 C	1.8971	Adder	2.23
940572	AE2-044 E	0.8130	Adder	0.96
940661	AE2-053 O1	1.3003	Adder	1.53
941031	AE2-094 C	21.6524	50/50	21.6524
941032	AE2-094 E	9.6976	50/50	9.6976
941541	AE2-151 C	0.3965	Adder	0.47
941542	AE2-151 E	0.2135	Adder	0.25
942451	AE2-258	0.8875	Adder	1.04
942471	AE2-260 C O1	13.5157	50/50	13.5157
942472	AE2-260 E O1	19.1703	50/50	19.1703
942931	AE2-313 C	19.4655	50/50	19.4655
942932	AE2-313 E	12.9770	50/50	12.9770
943171	AE2-346 C	0.5101	Adder	0.6
943172	AE2-346 E	0.2186	Adder	0.26

943901	AF1-058 C	0.6841	Adder	0.8
943902	AF1-058 E	0.4561	Adder	0.54
943911	AF1-059	10.1430	50/50	10.1430
944011	AF1-069 C	7.0746	50/50	7.0746
944012	AF1-069 E	2.7483	50/50	2.7483
944141	AF1-082	1.2196	Adder	1.43
945811	AF1-246 C O1	3.0955	Adder	3.64
945812	AF1-246 E O1	4.2748	Adder	5.03
946011	AF1-266	15.0304	50/50	15.0304
946281	AF1-292 C	1.2035	50/50	1.2035
946282	AF1-292 E	0.8114	50/50	0.8114
957481	AF2-042 C O1	11.6445	Adder	25.85
957482	AF2-042 E O1	7.7630	Adder	17.23
957521	AF2-046 C	3.1764	Adder	7.05
957522	AF2-046 E	1.5978	Adder	3.55
957861	AF2-080 C	1.5858	Adder	3.52
957862	AF2-080 E	0.7030	Adder	1.56
958142	AF2-108 BAT	2.9355	50/50	2.9355
959231	AF2-214 C	2.1725	Adder	4.82
959232	AF2-214 E	3.2570	Adder	7.23
959311	AF2-222 C	2.7922	Adder	6.2
959312	AF2-222 E	1.8708	Adder	4.15
959511	AF2-242	1.3876	Adder	3.08
959731	AF2-264 C	0.4290	Adder	0.95
959732	AF2-264 E	0.2113	Adder	0.47
959751	AF2-266 O1	1.7973	Adder	3.99
960061	AF2-297 C O1	1.4503	Adder	3.22
960062	AF2-297 E O1	0.9669	Adder	2.15
960081	AF2-299 C	2.0285	50/50	2.0285
960082	AF2-299 E	1.3523	50/50	1.3523
960122	AF2-303 E O1	2.7077	Adder	6.01
960331	AF2-324 C O1	1.7618	Adder	3.91
960332	AF2-324 E O1	0.9459	Adder	2.1
960351	AF2-326 C	0.5735	Adder	1.27
960352	AF2-326 E	0.1434	Adder	0.32
960811	AF2-372 C	0.2527	Adder	0.56
960812	AF2-372 E	0.4124	Adder	0.92
960821	AF2-373 C	0.1796	Adder	0.4
960822	AF2-373 E	0.2695	Adder	0.6
960831	AF2-374 C	0.2693	Adder	0.6
960832	AF2-374 E	0.4394	Adder	0.98
WEC	WEC	0.3667	Confirmed LTF	0.3667
LGEE	LGEE	0.6920	Confirmed LTF	0.6920
CPL	CPL	3.8076	Confirmed LTF	3.8076
CBM-W2	CBM-W2	14.7420	Confirmed LTF	14.7420
NY	NY	0.5176	Confirmed LTF	0.5176
CBM-W1	CBM-W1	13.6859	Confirmed LTF	13.6859
TVA	TVA	3.0996	Confirmed LTF	3.0996
O-066	O-066	7.3450	Confirmed LTF	7.3450
CBM-S2	CBM-S2	25.9522	Confirmed LTF	25.9522
CBM-S1	CBM-S1	17.2786	Confirmed LTF	17.2786
G-007	G-007	1.1461	Confirmed LTF	1.1461
MADISON	MADISON	0.8669	Confirmed LTF	0.8669

MEC	MEC	2.2214	Confirmed LTF	2.2214
AA2-074	AA2-074	2.5952	LTF	2.5952

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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
97890022	314287	6CHESTF B	DVP	314276	6BASIN	DVP	1	DVP_P1-2: LN 563	single	663.64	144.61	145.07	DC	6.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314314	3LOCKS	0.1996	80/20	0.1996
314435	6SAPONY	0.2851	80/20	0.2851
314572	3EMPORIA	0.0358	80/20	0.0358
314704	3LAWRENC	0.1386	80/20	0.1386
315065	1CHESTF6 (Deactivation : 31/05/2023)	172.3323	80/20	172.3323
315074	1HOPCGN1 (Deactivation : 25/06/2019)	6.0570	80/20	6.0570
315075	1HOPCGN2 (Deactivation : 25/06/2019)	5.9785	80/20	5.9785
315076	1HOPPOLC	1.1982	80/20	1.1982
315077	1HOPHCF1	1.8729	80/20	1.8729
315078	1HOPHCF2	1.8729	80/20	1.8729
315079	1HOPHCF3	1.8729	80/20	1.8729
315080	1HOPHCF4	2.8433	80/20	2.8433
315116	1SURRY 1	11.5720	80/20	11.5720
315117	1GRAVELC	0.4056	80/20	0.4056
315119	1GRAVEL3	1.1756	80/20	1.1756
315120	1GRAVEL4	1.1906	80/20	1.1906
315121	1GRAVEL5	1.1756	80/20	1.1756
315122	1GRAVEL6	1.1893	80/20	1.1893
315131	1EDGECEMA (Deactivation : 22/04/2019)	2.8338	Adder	3.33
315132	1EDGECEMB (Deactivation : 22/04/2019)	2.8338	Adder	3.33
315136	1ROSEMG1	0.9895	80/20	0.9895
315137	1ROSEMS1	0.6136	80/20	0.6136
315138	1ROSEMG2	0.4638	80/20	0.4638
315139	1GASTONA	1.4669	80/20	1.4669
315141	1GASTONB	1.4669	80/20	1.4669
315294	1DOMTR10	3.3467	Adder	3.94
315611	6Z1-036WIND	2.0089	Adder	2.36
922922	AB1-081 C OP	2.7246	Adder	3.21
923262	AB1-132 C OP (Suspended)	6.4940	80/20	6.4940
923572	AB1-173 C OP	1.0571	80/20	1.0571
923582	AB1-173AC OP	1.0571	80/20	1.0571
923801	AB2-015 C OP	2.8955	Adder	3.41
923831	AB2-022 C	0.6590	Adder	0.78
923911	AB2-031 C O1	1.0492	80/20	1.0492
923991	AB2-040 C O1	3.4452	80/20	3.4452
924501	AB2-099 C (Suspended)	0.1944	Adder	0.23

924511	AB2-100 C	1.1199	80/20	1.1199
924811	AB2-134 C OP	1.2696	80/20	1.2696
925051	AB2-160 C O1 (Suspended)	3.5182	80/20	3.5182
925061	AB2-161 C O1 (Suspended)	1.9112	80/20	1.9112
925171	AB2-174 C O1	0.5804	80/20	0.5804
925331	AB2-190 C	11.7746	80/20	11.7746
925591	AC1-034 C	2.0800	Adder	2.45
926071	AC1-086 C	9.5632	80/20	9.5632
926201	AC1-098 C	2.0227	Adder	2.38
926211	AC1-099 C	0.6778	Adder	0.8
926661	AC1-147 C	0.6442	Adder	0.76
927021	AC1-189 C	2.6158	Adder	3.08
927141	AC1-208 C	2.9977	Adder	3.53
927221	AC1-216 C O1	0.9693	80/20	0.9693
932041	AC2-012 C	2.9143	Adder	3.43
932581	AC2-078 C O1	3.0062	80/20	3.0062
932591	AC2-079 C O1	2.7949	80/20	2.7949
932631	AC2-084 C	2.8835	Adder	3.39
933731	AC2-196 C	0.4989	Adder	0.59
933991	AD1-023 C	4.1106	Adder	4.84
934011	AD1-025 C	9.6564	80/20	9.6564
934061	AD1-033 C	2.0984	Adder	2.47
934331	AD1-057 C O1	3.4483	Adder	4.06
934521	AD1-076 C	16.8055	Adder	19.77
934571	AD1-082 C	4.3555	80/20	4.3555
935111	AD1-144 C	0.5087	Adder	0.6
935161	AD1-151 C O1	9.4617	80/20	9.4617
936041	AD2-007 C	0.4613	80/20	0.4613
936051	AD2-008 C	1.6812	80/20	1.6812
936401	AD2-051 C O1	2.8621	Adder	3.37
936661	AD2-085 C	1.6895	80/20	1.6895
937221	AD2-160 C O1	1.6435	Adder	1.93
937541	AD2-215 C	0.5140	Adder	0.6
938171	AE1-026 C O1	10.1013	Adder	11.88
938221	AE1-035 C	0.7278	Adder	0.86
938491	AE1-068 C O1	17.2211	Adder	20.26
938501	AE1-069 C O1	13.4662	Adder	15.84
938531	AE1-072 C O1	4.9590	Adder	5.83
938561	AE1-075 C	-0.6270	Adder	-0.74
938631	AE1-085 C O1	6.3665	80/20	6.3665
938771	AE1-103 C O1	1.2161	Adder	1.43
939191	AE1-149 C O1	8.2500	80/20	8.2500
939311	AE1-162 C	0.8644	80/20	0.8644
939411	AE1-173 C	25.4102	Adder	29.89
940061	AE2-000BC O1	9.0531	80/20	9.0531
940251	AE2-007 O1	49.1584	Adder	57.83
940431	AE2-027 C O1	3.4915	Adder	4.11
940471	AE2-031 C	9.3547	Adder	11.01
940481	AE2-033 C	10.3934	80/20	10.3934
940491	AE2-034 C	2.1870	Adder	2.57
940541	AE2-040 O1	1.8170	80/20	1.8170
940571	AE2-044 C	1.3623	Adder	1.6

940641	AE2-051 C O1	4.8715	Adder	5.73
940651	AE2-052	2.7500	80/20	2.7500
940891	AE2-078 C	0.9794	80/20	0.9794
940901	AE2-079 C	0.9794	80/20	0.9794
941031	AE2-094 C	11.2928	Adder	13.29
941101	AE2-104 C O1	1.0955	Adder	1.29
941281	AE2-122 C O1	8.0148	Adder	9.43
941291	AE2-123 C O1	8.2367	Adder	9.69
941301	AE2-124 C O1	7.4801	Adder	8.8
941501	AE2-147 C	4.6160	Adder	5.43
941541	AE2-151 C	0.3580	Adder	0.42
941591	AE2-156 O1	5.0991	Adder	6.0
942001	AE2-212 C	2.5328	80/20	2.5328
942131	AE2-225 C	0.6193	Adder	0.73
942161	AE2-228 C	2.9165	80/20	2.9165
942171	AE2-229 C	0.6193	Adder	0.73
942341	AE2-247 C	0.7346	80/20	0.7346
942371	AE2-250 C O1	6.2494	80/20	6.2494
942401	AE2-253 C	1.7287	Adder	2.03
942471	AE2-260 C O1	8.2162	80/20	8.2162
942551	AE2-270	15.3405	80/20	15.3405
942851	AE2-304 C	0.1849	Adder	0.22
942931	AE2-313 C	10.1289	Adder	11.92
943171	AE2-346 C	0.4667	Adder	0.55
943461	AF1-017 C	0.6646	80/20	0.6646
943611	AF1-032 C	0.5058	Adder	0.6
943621	AF1-033 C	0.9794	80/20	0.9794
943911	AF1-059	5.3269	Adder	6.27
944011	AF1-069 C	3.6898	Adder	4.34
944141	AF1-082	0.8758	Adder	1.03
944501	AF1-115 C O1	2.9828	80/20	2.9828
944581	AF1-123 C O1	12.9513	Adder	15.24
944591	AF1-124 C O1	12.9513	Adder	15.24
944601	AF1-125 C O1	12.9513	Adder	15.24
944871	AF1-152 C	1.5387	Adder	1.81
945711	AF1-236 C O1	23.9422	Adder	28.17
946011	AF1-266	8.7001	80/20	8.7001
946261	AF1-291 C	2.9432	80/20	2.9432
946281	AF1-292 C	0.7554	80/20	0.7554
957491	AF2-043 C	0.3283	Adder	0.73
957521	AF2-046 C	3.0020	Adder	6.66
957531	AF2-047 C	2.7542	Adder	6.11
957631	AF2-057	0.5420	Adder	1.2
957711	AF2-065 C	7.8237	80/20	7.8237
957791	AF2-073 C (Withdrawn : 07/02/2020)	1.5240	Adder	3.38
957801	AF2-074 C (Withdrawn : 07/02/2020)	0.6773	Adder	1.5
957821	AF2-076 C O1	0.8233	Adder	1.83
957861	AF2-080 C	1.2592	Adder	2.8
957871	AF2-081 C O1	1.4900	Adder	3.31
958141	AF2-108	3.0601	80/20	3.0601
958161	AF2-110 C	0.2394	Adder	0.53
959231	AF2-214 C	1.5601	Adder	3.46

959511	AF2-242	1.2762	Adder	2.83
959651	AF2-256 C	0.7291	80/20	0.7291
959661	AF2-257 C	0.7358	80/20	0.7358
959671	AF2-258 C	0.6332	80/20	0.6332
959681	AF2-259 C	2.6229	80/20	2.6229
959731	AF2-264 C	0.3985	Adder	0.88
960081	AF2-299 C	1.2732	80/20	1.2732
960101	AF2-301 C	0.4400	Adder	0.98
960331	AF2-324 C O1	1.2637	Adder	2.81
960351	AF2-326 C	0.4122	Adder	0.91
960361	AF2-327 C	1.7446	80/20	1.7446
960831	AF2-374 C	0.2266	Adder	0.5
961091	AF2-400 C	0.0829	Adder	0.18
961111	AF2-402 C O1	0.6137	80/20	0.6137
WEC	WEC	0.1962	Confirmed LTF	0.1962
LGEE	LGEE	0.3742	Confirmed LTF	0.3742
CPL	CPL	2.5011	Confirmed LTF	2.5011
CBM-W2	CBM-W2	8.6241	Confirmed LTF	8.6241
NY	NY	0.4352	Confirmed LTF	0.4352
CBM-W1	CBM-W1	7.2058	Confirmed LTF	7.2058
TVA	TVA	1.8648	Confirmed LTF	1.8648
CBM-S2	CBM-S2	16.6637	Confirmed LTF	16.6637
CBM-S1	CBM-S1	10.2836	Confirmed LTF	10.2836
MADISON	MADISON	0.5867	Confirmed LTF	0.5867
MEC	MEC	1.2410	Confirmed LTF	1.2410
AA2-074	AA2-074	1.7042	LTF	1.7042

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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
97889893	314296	6PENNIMAN	DVP	314415	6WALR209	DVP	1	DVP_P1-2: LN 567	single	441.8	133.9	134.48	DC	5.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314295	6BIRDNECK	0.0216	80/20	0.0216
314421	6WINCHST	0.1174	80/20	0.1174
314491	3PENDLTN	0.1610	80/20	0.1610
314507	3THOMPSN	0.1616	80/20	0.1616
315092	1YORKTN3	21.6871	80/20	21.6871
315098	1CHESPKA	0.2137	80/20	0.2137
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3850	80/20	1.3850
315108	1ELIZAR1	1.5744	80/20	1.5744
315109	1ELIZAR2	1.5470	80/20	1.5470
315110	1ELIZAR3	1.5945	80/20	1.5945
315233	1SURRY 2	15.7051	80/20	15.7051
315260	1GOSPORTA	0.1706	80/20	0.1706
315261	1GOSPORTB	0.2179	80/20	0.2179
315262	1GOSPORTC	0.1849	80/20	0.1849
315294	1DOMTR10	3.3373	Adder	3.93
315603	6AA1-139SOLA	1.1905	80/20	1.1905
315611	6Z1-036WIND	2.4670	Adder	2.9
923801	AB2-015 C OP	2.7115	Adder	3.19
923831	AB2-022 C	0.8832	Adder	1.04
924501	AB2-099 C (Suspended)	0.1652	Adder	0.19
925061	AB2-161 C O1 (Suspended)	0.8266	Adder	0.97
925861	AC1-065 C	-2.2607	Adder	-2.66
926661	AC1-147 C	1.0474	80/20	1.0474
926751	AC1-161 C O1	15.6813	80/20	15.6813
926781	AC1-164 C	-14.4570	Adder	-17.01
932041	AC2-012 C	4.7384	80/20	4.7384
932501	AC2-070 C	-0.4125	Adder	-0.49
932591	AC2-079 C O1	1.6890	Adder	1.99
932831	AC2-110 C	-0.9043	Adder	-1.06
933261	AC2-137 C	-0.6062	Adder	-0.71
933271	AC2-138 C	-0.5379	Adder	-0.63
933291	AC2-141 C	15.6813	80/20	15.6813
933731	AC2-196 C	0.8356	80/20	0.8356
933991	AD1-023 C	4.1258	Adder	4.85
934061	AD1-033 C	3.5087	80/20	3.5087
934191	AD1-046 C	-2.7204	Adder	-3.2
934521	AD1-076 C	17.4570	Adder	20.54
934571	AD1-082 C	1.8837	Adder	2.22
935111	AD1-144 C	0.8444	80/20	0.8444
936151	AD2-021	-0.0691	Adder	-0.08

936301	AD2-039 C	-0.9043	Adder	-1.06
936341	AD2-044 C	-0.1681	Adder	-0.2
936401	AD2-051 C O1	2.5659	Adder	3.02
936661	AD2-085 C	1.0055	Adder	1.18
937221	AD2-160 C O1	2.7080	80/20	2.7080
937251	AD2-164 (Withdrawn : 06/30/2020)	3.8843	80/20	3.8843
937541	AD2-215 C	0.8531	80/20	0.8531
938031	AE1-004 C	-0.9043	Adder	-1.06
938171	AE1-026 C O1	9.9367	Adder	11.69
938221	AE1-035 C	0.6610	Adder	0.78
938531	AE1-072 C O1	8.0586	80/20	8.0586
938771	AE1-103 C O1	1.1652	Adder	1.37
938961	AE1-124 C	-1.1785	Adder	-1.39
939311	AE1-162 C	0.7760	Adder	0.91
939411	AE1-173 C	26.8994	Adder	31.65
939421	AE1-174 C (Withdrawn : 06/16/2020)	0.1971	80/20	0.1971
939431	AE1-175 C	1.3107	80/20	1.3107
940061	AE2-000BC O1	3.9153	Adder	4.61
940251	AE2-007 O1	80.6978	80/20	80.6978
940491	AE2-034 C	2.4240	Adder	2.85
940641	AE2-051 C O1	4.5686	Adder	5.37
940891	AE2-078 C	1.1039	80/20	1.1039
940901	AE2-079 C	1.1039	80/20	1.1039
941031	AE2-094 C	8.8183	Adder	10.37
941101	AE2-104 C O1	1.2070	Adder	1.42
941281	AE2-122 C O1	13.2491	80/20	13.2491
941291	AE2-123 C O1	13.6160	80/20	13.6160
941301	AE2-124 C O1	12.3849	80/20	12.3849
941501	AE2-147 C	5.9708	Adder	7.02
941541	AE2-151 C	0.3058	Adder	0.36
941591	AE2-156 O1	8.3250	80/20	8.3250
942131	AE2-225 C	0.9862	80/20	0.9862
942171	AE2-229 C	0.9862	80/20	0.9862
942341	AE2-247 C	0.4344	Adder	0.51
942401	AE2-253 C	2.8483	80/20	2.8483
942851	AE2-304 C	0.2332	Adder	0.27
943171	AE2-346 C	0.3965	Adder	0.47
943461	AF1-017 C	0.3930	Adder	0.46
943611	AF1-032 C	0.8054	80/20	0.8054
943621	AF1-033 C	1.1039	80/20	1.1039
944011	AF1-069 C	2.8813	Adder	3.39
944501	AF1-115 C O1	3.3619	80/20	3.3619
944581	AF1-123 C O1	22.7964	80/20	22.7964
944591	AF1-124 C O1	22.7964	80/20	22.7964
944601	AF1-125 C O1	22.7964	80/20	22.7964
944871	AF1-152 C	1.9903	Adder	2.34
945361	AF1-201 C O1	5.6136	Adder	6.6
945711	AF1-236 C O1	26.5374	Adder	31.22
957491	AF2-043 C	0.9862	80/20	0.9862
957521	AF2-046 C	2.5169	Adder	5.59
957531	AF2-047 C	3.0528	Adder	6.78
957631	AF2-057	1.6626	80/20	1.6626

957791	AF2-073 C (Withdrawn : 07/02/2020)	1.8633	Adder	4.14
957801	AF2-074 C (Withdrawn : 07/02/2020)	0.8282	Adder	1.84
957821	AF2-076 C O1	1.0901	Adder	2.42
957871	AF2-081 C O1	4.6010	80/20	4.6010
958161	AF2-110 C	0.2637	Adder	0.59
959511	AF2-242	1.1642	Adder	2.58
959731	AF2-264 C	0.3365	Adder	0.75
960101	AF2-301 C	1.5672	80/20	1.5672
960831	AF2-374 C	0.1789	Adder	0.4
961091	AF2-400 C	0.0776	Adder	0.17
961111	AF2-402 C O1	0.1519	Adder	0.34
WEC	WEC	0.1269	Confirmed LTF	0.1269
LGEE	LGEE	0.2436	Confirmed LTF	0.2436
CPL	CPL	1.8952	Confirmed LTF	1.8952
CBM-W2	CBM-W2	6.0197	Confirmed LTF	6.0197
NY	NY	0.3661	Confirmed LTF	0.3661
CBM-W1	CBM-W1	4.6037	Confirmed LTF	4.6037
TVA	TVA	1.3314	Confirmed LTF	1.3314
CBM-S2	CBM-S2	12.4848	Confirmed LTF	12.4848
CBM-S1	CBM-S1	7.2676	Confirmed LTF	7.2676
MADISON	MADISON	0.4536	Confirmed LTF	0.4536
MEC	MEC	0.8342	Confirmed LTF	0.8342

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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
97708089	314299	6HARROWG	DVP	314263	6TYLER1	DVP	1	DVP_P4-2: 562T563	breaker	541.0	141.43	142.2	DC	9.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.3501	50/50	0.3501
314539	3UNCAMP	0.6872	Adder	0.81
314541	3WATKINS	0.2020	Adder	0.24
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.0029	Adder	3.53
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.0029	Adder	3.53
900672	V4-068 E	0.0934	Adder	0.11
907092	X1-038 E	1.7181	Adder	2.02
917332	Z2-043 E	0.3606	Adder	0.42
917342	Z2-044 E	0.1895	Adder	0.22
917512	Z2-088 E OP1	1.1777	Adder	1.39
918492	AA1-063AE OP	1.4311	Adder	1.68
918512	AA1-065 E OP	1.1298	Adder	1.33
918532	AA1-067 E	0.2085	Adder	0.25
919692	AA2-053 E OP	1.3707	Adder	1.61
919702	AA2-057 E OP	1.1342	Adder	1.33
920042	AA2-088 E OP	3.3180	Adder	3.9
920592	AA2-165 E	0.1559	Adder	0.18
920672	AA2-174 E OP	0.1584	Adder	0.19
922922	AB1-081 C OP	2.8884	Adder	3.4
922923	AB1-081 E OP	1.2379	Adder	1.46
923262	AB1-132 C OP (Suspended)	6.0126	Adder	7.07
923263	AB1-132 E OP (Suspended)	2.5768	Adder	3.03
923572	AB1-173 C OP	1.0096	Adder	1.19
923573	AB1-173 E OP	0.4711	Adder	0.55
923582	AB1-173AC OP	1.0096	Adder	1.19
923583	AB1-173AE OP	0.4711	Adder	0.55
923801	AB2-015 C OP	2.4956	Adder	2.94
923802	AB2-015 E OP	2.0464	Adder	2.41
923852	AB2-025 E	0.9118	50/50	0.9118
923911	AB2-031 C O1	1.0021	Adder	1.18
923912	AB2-031 E O1	0.4936	Adder	0.58
923991	AB2-040 C O1	3.2905	Adder	3.87
923992	AB2-040 E O1	2.6922	Adder	3.17
924022	AB2-043 E O1	0.7888	Adder	0.93
924152	AB2-059 E OP	1.7537	Adder	2.06
924162	AB2-060 E OP	1.1840	Adder	1.39
924301	AB2-077 C O1 (Suspended)	0.5601	Adder	0.66

924302	AB2-077 E O1 (Suspended)	0.3734	Adder	0.44
924311	AB2-078 C O1 (Suspended)	0.5601	Adder	0.66
924312	AB2-078 E O1 (Suspended)	0.3734	Adder	0.44
924321	AB2-079 C O1 (Suspended)	0.5601	Adder	0.66
924322	AB2-079 E O1 (Suspended)	0.3734	Adder	0.44
924501	AB2-099 C (Suspended)	0.1773	Adder	0.21
924502	AB2-099 E (Suspended)	0.0760	Adder	0.09
924511	AB2-100 C	1.3143	50/50	1.3143
924512	AB2-100 E	3.7528	50/50	3.7528
925061	AB2-161 C O1 (Suspended)	2.4158	50/50	2.4158
925062	AB2-161 E O1 (Suspended)	3.9416	50/50	3.9416
925122	AB2-169 E	1.5101	Adder	1.78
925172	AB2-174 E O1	2.9357	Adder	3.45
925591	AC1-034 C	2.2050	Adder	2.59
925592	AC1-034 E	1.6634	Adder	1.96
925781	AC1-054 C O1	2.3459	Adder	2.76
925782	AC1-054 E O1	1.0807	Adder	1.27
926071	AC1-086 C	8.8543	Adder	10.42
926072	AC1-086 E	4.0299	Adder	4.74
926201	AC1-098 C	2.0384	Adder	2.4
926202	AC1-098 E	1.2144	Adder	1.43
926211	AC1-099 C	0.6831	Adder	0.8
926212	AC1-099 E	0.4012	Adder	0.47
926271	AC1-105 C O1 (Suspended)	1.4685	Adder	1.73
926272	AC1-105 E O1 (Suspended)	0.7310	Adder	0.86
927021	AC1-189 C	2.5727	Adder	3.03
927022	AC1-189 E	1.2815	Adder	1.51
927141	AC1-208 C	3.1122	Adder	3.66
927142	AC1-208 E	1.3819	Adder	1.63
932581	AC2-078 C O1	4.5616	50/50	4.5616
932582	AC2-078 E O1	7.4426	50/50	7.4426
932591	AC2-079 C O1	2.5898	Adder	3.05
932592	AC2-079 E O1	4.2255	Adder	4.97
932631	AC2-084 C	2.9058	Adder	3.42
932632	AC2-084 E	1.4312	Adder	1.68
934331	AD1-057 C O1	3.7094	Adder	4.36
934332	AD1-057 E O1	1.9787	Adder	2.33
934571	AD1-082 C	5.5056	50/50	5.5056
934572	AD1-082 E	3.1406	50/50	3.1406
934611	AD1-087 C O1	2.2736	Adder	2.67
934612	AD1-087 E O1	1.0686	Adder	1.26
935171	AD1-152 C O1	2.2595	Adder	2.66
935172	AD1-152 E O1	1.5063	Adder	1.77
936361	AD2-046 C O1	2.6732	Adder	3.14
936362	AD2-046 E O1	1.2293	Adder	1.45

936401	AD2-051 C O1	2.5014	Adder	2.94
936402	AD2-051 E O1	1.0741	Adder	1.26
936481	AD2-063 C O1	3.9604	Adder	4.66
936482	AD2-063 E O1	2.6183	Adder	3.08
936661	AD2-085 C	1.5789	Adder	1.86
936662	AD2-085 E	2.5762	Adder	3.03
936762	AD2-097 E	-2.9410	Adder	-3.46
937481	AD2-202 C O1	0.6025	Adder	0.71
937482	AD2-202 E O1	0.3389	Adder	0.4
938171	AE1-026 C O1	8.1805	Adder	9.62
938172	AE1-026 E O1	2.1582	Adder	2.54
938221	AE1-035 C	0.6308	Adder	0.74
938222	AE1-035 E	0.3107	Adder	0.37
938491	AE1-068 C O1	20.6407	Adder	24.28
938492	AE1-068 E O1	11.4001	Adder	13.41
938501	AE1-069 C O1	16.1400	Adder	18.99
938502	AE1-069 E O1	9.2274	Adder	10.86
938631	AE1-085 C O1	9.4765	50/50	9.4765
938632	AE1-085 E O1	4.7383	50/50	4.7383
938771	AE1-103 C O1	1.0308	Adder	1.21
938772	AE1-103 E O1	1.4235	Adder	1.67
939181	AE1-148 C O1	2.6282	Adder	3.09
939182	AE1-148 E O1	1.7522	Adder	2.06
939191	AE1-149 C O1	12.7956	50/50	12.7956
939192	AE1-149 E O1	8.5304	50/50	8.5304
939411	AE1-173 C	24.2638	Adder	28.55
939412	AE1-173 E	16.1758	Adder	19.03
940061	AE2-000BC O1	11.4435	50/50	11.4435
940062	AE2-000BE O1	7.6290	50/50	7.6290
940471	AE2-031 C	11.2374	Adder	13.22
940472	AE2-031 E	7.4916	Adder	8.81
940481	AE2-033 C	12.6994	50/50	12.6994
940482	AE2-033 E	8.5614	50/50	8.5614
940571	AE2-044 C	1.4442	Adder	1.7
940572	AE2-044 E	0.6189	Adder	0.73
940651	AE2-052	4.2652	50/50	4.2652
940661	AE2-053 O1	0.9734	Adder	1.15
941031	AE2-094 C	13.5348	Adder	15.92
941032	AE2-094 E	6.0619	Adder	7.13
941101	AE2-104 C O1	0.8265	Adder	0.97
941102	AE2-104 E O1	1.3139	Adder	1.55
941541	AE2-151 C	0.3249	Adder	0.38
941542	AE2-151 E	0.1749	Adder	0.21
942341	AE2-247 C	0.6889	Adder	0.81
942342	AE2-247 E	0.9513	Adder	1.12
942451	AE2-258	0.6581	Adder	0.77
942471	AE2-260 C O1	9.7098	50/50	9.7098
942472	AE2-260 E O1	13.7722	50/50	13.7722
942931	AE2-313 C	12.1674	Adder	14.31
942932	AE2-313 E	8.1116	Adder	9.54
943171	AE2-346 C	0.4256	Adder	0.5
943172	AE2-346 E	0.1824	Adder	0.21
943461	AF1-017 C	0.6233	Adder	0.73

943462	AF1-017 E	1.0169	Adder	1.2
943911	AF1-059	6.3283	Adder	7.45
944011	AF1-069 C	4.4223	Adder	5.2
944012	AF1-069 E	1.7180	Adder	2.02
944141	AF1-082	0.9284	Adder	1.09
945811	AF1-246 C O1	2.2784	Adder	2.68
945812	AF1-246 E O1	3.1463	Adder	3.7
946011	AF1-266	10.6304	50/50	10.6304
946281	AF1-292 C	0.7457	Adder	0.88
946282	AF1-292 E	0.5027	Adder	0.59
957481	AF2-042 C O1	8.5699	Adder	19.02
957482	AF2-042 E O1	5.7132	Adder	12.68
957521	AF2-046 C	2.7695	Adder	6.15
957522	AF2-046 E	1.3931	Adder	3.09
957861	AF2-080 C	1.2384	Adder	2.75
957862	AF2-080 E	0.5490	Adder	1.22
958161	AF2-110 C	0.1806	Adder	0.4
958162	AF2-110 E	0.2824	Adder	0.63
959231	AF2-214 C	1.6538	Adder	3.67
959232	AF2-214 E	2.4794	Adder	5.5
959511	AF2-242	1.1275	Adder	2.5
959731	AF2-264 C	0.3655	Adder	0.81
959732	AF2-264 E	0.1800	Adder	0.4
959751	AF2-266 O1	1.3233	Adder	2.94
960081	AF2-299 C	0.6661	Adder	1.48
960082	AF2-299 E	0.4441	Adder	0.99
960122	AF2-303 E O1	2.0580	Adder	4.57
960331	AF2-324 C O1	1.3391	Adder	2.97
960332	AF2-324 E O1	0.7189	Adder	1.6
960351	AF2-326 C	0.4368	Adder	0.97
960352	AF2-326 E	0.1092	Adder	0.24
960361	AF2-327 C	2.3496	50/50	2.3496
960362	AF2-327 E	0.5874	50/50	0.5874
960811	AF2-372 C	0.1875	Adder	0.42
960812	AF2-372 E	0.3060	Adder	0.68
960821	AF2-373 C	0.1331	Adder	0.3
960822	AF2-373 E	0.1996	Adder	0.44
960831	AF2-374 C	0.2160	Adder	0.48
960832	AF2-374 E	0.3524	Adder	0.78
961091	AF2-400 C	0.0714	Adder	0.16
961092	AF2-400 E	0.1172	Adder	0.26
961111	AF2-402 C O1	0.7542	50/50	0.7542
961112	AF2-402 E O1	1.2330	50/50	1.2330
WEC	WEC	0.2693	Confirmed LTF	0.2693
LGEE	LGEE	0.5089	Confirmed LTF	0.5089
CPL	CPL	2.8524	Confirmed LTF	2.8524
CBM-W2	CBM-W2	10.9173	Confirmed LTF	10.9173
NY	NY	0.3971	Confirmed LTF	0.3971
CBM-W1	CBM-W1	10.0455	Confirmed LTF	10.0455
TVA	TVA	2.3002	Confirmed LTF	2.3002
O-066	O-066	5.6112	Confirmed LTF	5.6112
CBM-S2	CBM-S2	19.3746	Confirmed LTF	19.3746
CBM-S1	CBM-S1	12.8056	Confirmed LTF	12.8056

G-007	G-007	0.8757	Confirmed LTF	0.8757
MADISON	MADISON	0.6492	Confirmed LTF	0.6492
MEC	MEC	1.6383	Confirmed LTF	1.6383
AA2-074	AA2-074	1.9440	LTF	1.9440

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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
97708099	314316	6LOCKS	DVP	314301	6HARR205	DVP	1	DVP_P4-2: 562T563	breaker	541.0	138.15	138.88	DC	8.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314314	3LOCKS	0.4484	50/50	0.4484
314435	6SAPONY	0.3847	50/50	0.3847
314572	3EMPORIA	0.0441	50/50	0.0441
315073	1STONECA	-2.0407	Adder	-2.4
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.1256	Adder	3.68
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.1256	Adder	3.68
900672	V4-068 E	0.0874	Adder	0.1
917332	Z2-043 E	0.3603	Adder	0.42
917342	Z2-044 E	0.1963	Adder	0.23
917512	Z2-088 E OP1	1.2083	Adder	1.42
918492	AA1-063AE OP	1.4180	Adder	1.67
918512	AA1-065 E OP	1.1096	Adder	1.31
918532	AA1-067 E	0.2104	Adder	0.25
919692	AA2-053 E OP	1.4063	Adder	1.65
919702	AA2-057 E OP	1.1712	Adder	1.38
920042	AA2-088 E OP	2.9997	Adder	3.53
920592	AA2-165 E	0.1610	Adder	0.19
920672	AA2-174 E OP	0.1625	Adder	0.19
922922	AB1-081 C OP	3.0031	Adder	3.53
922923	AB1-081 E OP	1.2870	Adder	1.51
923262	AB1-132 C OP (Suspended)	6.3446	Adder	7.46
923263	AB1-132 E OP (Suspended)	2.7191	Adder	3.2
923572	AB1-173 C OP	1.0681	Adder	1.26
923573	AB1-173 E OP	0.4984	Adder	0.59
923582	AB1-173AC OP	1.0681	Adder	1.26
923583	AB1-173AE OP	0.4984	Adder	0.59
923852	AB2-025 E	1.0021	50/50	1.0021
923911	AB2-031 C O1	1.0602	Adder	1.25
923912	AB2-031 E O1	0.5222	Adder	0.61
923991	AB2-040 C O1	3.4812	Adder	4.1
923992	AB2-040 E O1	2.8482	Adder	3.35
924022	AB2-043 E O1	0.8350	Adder	0.98
924152	AB2-059 E OP	1.8233	Adder	2.15
924162	AB2-060 E OP	1.2536	Adder	1.47
924301	AB2-077 C O1 (Suspended)	0.5927	Adder	0.7
924302	AB2-077 E O1 (Suspended)	0.3951	Adder	0.46

924311	AB2-078 C O1 (Suspended)	0.5927	Adder	0.7
924312	AB2-078 E O1 (Suspended)	0.3951	Adder	0.46
924321	AB2-079 C O1 (Suspended)	0.5927	Adder	0.7
924322	AB2-079 E O1 (Suspended)	0.3951	Adder	0.46
924501	AB2-099 C (Suspended)	0.1725	Adder	0.2
924502	AB2-099 E (Suspended)	0.0739	Adder	0.09
924511	AB2-100 C	1.4223	50/50	1.4223
924512	AB2-100 E	4.0613	50/50	4.0613
925051	AB2-160 C O1 (Suspended)	7.9019	50/50	7.9019
925052	AB2-160 E O1 (Suspended)	12.8925	50/50	12.8925
925172	AB2-174 E O1	3.1192	Adder	3.67
925591	AC1-034 C	2.2925	Adder	2.7
925592	AC1-034 E	1.7295	Adder	2.03
925781	AC1-054 C O1	2.4514	Adder	2.88
925782	AC1-054 E O1	1.1293	Adder	1.33
926071	AC1-086 C	9.3432	Adder	10.99
926072	AC1-086 E	4.2524	Adder	5.0
926201	AC1-098 C	2.0796	Adder	2.45
926202	AC1-098 E	1.2389	Adder	1.46
926211	AC1-099 C	0.6969	Adder	0.82
926212	AC1-099 E	0.4093	Adder	0.48
927021	AC1-189 C	2.6258	Adder	3.09
927022	AC1-189 E	1.3080	Adder	1.54
927141	AC1-208 C	3.2021	Adder	3.77
927142	AC1-208 E	1.4219	Adder	1.67
932581	AC2-078 C O1	1.1238	Adder	1.32
932582	AC2-078 E O1	1.8336	Adder	2.16
932631	AC2-084 C	2.9646	Adder	3.49
932632	AC2-084 E	1.4602	Adder	1.72
934331	AD1-057 C O1	3.8896	Adder	4.58
934332	AD1-057 E O1	2.0749	Adder	2.44
934611	AD1-087 C O1	2.4186	Adder	2.85
934612	AD1-087 E O1	1.1367	Adder	1.34
935171	AD1-152 C O1	2.4035	Adder	2.83
935172	AD1-152 E O1	1.6024	Adder	1.89
936361	AD2-046 C O1	2.8106	Adder	3.31
936362	AD2-046 E O1	1.2925	Adder	1.52
936401	AD2-051 C O1	2.4640	Adder	2.9
936402	AD2-051 E O1	1.0580	Adder	1.24
936481	AD2-063 C O1	4.1960	Adder	4.94
936482	AD2-063 E O1	2.7740	Adder	3.26
936762	AD2-097 E	-3.0883	Adder	-3.63
937481	AD2-202 C O1	0.6409	Adder	0.75
937482	AD2-202 E O1	0.3605	Adder	0.42
938221	AE1-035 C	0.6195	Adder	0.73
938222	AE1-035 E	0.3051	Adder	0.36
938491	AE1-068 C O1	22.0260	Adder	25.91
938492	AE1-068 E O1	12.1652	Adder	14.31

938501	AE1-069 C O1	17.2195	Adder	20.26
938502	AE1-069 E O1	9.8445	Adder	11.58
938631	AE1-085 C O1	2.3847	Adder	2.81
938632	AE1-085 E O1	1.1923	Adder	1.4
939181	AE1-148 C O1	2.7641	Adder	3.25
939182	AE1-148 E O1	1.8427	Adder	2.17
939191	AE1-149 C O1	3.0779	Adder	3.62
939192	AE1-149 E O1	2.0519	Adder	2.41
939411	AE1-173 C	25.0186	Adder	29.43
939412	AE1-173 E	16.6790	Adder	19.62
940431	AE2-027 C O1	11.7209	50/50	11.7209
940432	AE2-027 E O1	7.8139	50/50	7.8139
940471	AE2-031 C	11.9947	Adder	14.11
940472	AE2-031 E	7.9965	Adder	9.41
940481	AE2-033 C	13.9347	50/50	13.9347
940482	AE2-033 E	9.3942	50/50	9.3942
940541	AE2-040 O1	4.0809	50/50	4.0809
940571	AE2-044 C	1.5015	Adder	1.77
940572	AE2-044 E	0.6435	Adder	0.76
940651	AE2-052	1.0260	Adder	1.21
940661	AE2-053 O1	1.0237	Adder	1.2
941031	AE2-094 C	14.4471	Adder	17.0
941032	AE2-094 E	6.4705	Adder	7.61
941541	AE2-151 C	0.3203	Adder	0.38
941542	AE2-151 E	0.1725	Adder	0.2
942371	AE2-250 C O1	14.0362	50/50	14.0362
942372	AE2-250 E O1	7.4080	50/50	7.4080
942451	AE2-258	0.6967	Adder	0.82
942471	AE2-260 C O1	10.5310	50/50	10.5310
942472	AE2-260 E O1	14.9370	50/50	14.9370
942931	AE2-313 C	12.9874	Adder	15.28
942932	AE2-313 E	8.6582	Adder	10.19
943171	AE2-346 C	0.4141	Adder	0.49
943172	AE2-346 E	0.1775	Adder	0.21
943911	AF1-059	6.7532	Adder	7.94
944011	AF1-069 C	4.7204	Adder	5.55
944012	AF1-069 E	1.8338	Adder	2.16
944141	AF1-082	0.9653	Adder	1.14
945811	AF1-246 C O1	2.4290	Adder	2.86
945812	AF1-246 E O1	3.3544	Adder	3.95
946011	AF1-266	11.6645	50/50	11.6645
946281	AF1-292 C	0.9413	50/50	0.9413
946282	AF1-292 E	0.6346	50/50	0.6346
957481	AF2-042 C O1	9.1361	Adder	20.28
957482	AF2-042 E O1	6.0908	Adder	13.52
957521	AF2-046 C	2.6117	Adder	5.8
957522	AF2-046 E	1.3137	Adder	2.92
957861	AF2-080 C	1.2640	Adder	2.81
957862	AF2-080 E	0.5603	Adder	1.24
958141	AF2-108	7.8655	50/50	7.8655
959231	AF2-214 C	1.7195	Adder	3.82
959232	AF2-214 E	2.5779	Adder	5.72
959681	AF2-259 C	6.7419	50/50	6.7419

959682	AF2-259 E	4.4946	50/50	4.4946
959731	AF2-264 C	0.3504	Adder	0.78
959732	AF2-264 E	0.1726	Adder	0.38
959751	AF2-266 O1	1.4101	Adder	3.13
960081	AF2-299 C	1.5864	50/50	1.5864
960082	AF2-299 E	1.0576	50/50	1.0576
960122	AF2-303 E O1	2.1421	Adder	4.75
960331	AF2-324 C O1	1.3938	Adder	3.09
960332	AF2-324 E O1	0.7483	Adder	1.66
960351	AF2-326 C	0.4540	Adder	1.01
960352	AF2-326 E	0.1135	Adder	0.25
960811	AF2-372 C	0.1984	Adder	0.44
960812	AF2-372 E	0.3238	Adder	0.72
960821	AF2-373 C	0.1411	Adder	0.31
960822	AF2-373 E	0.2116	Adder	0.47
960831	AF2-374 C	0.2162	Adder	0.48
960832	AF2-374 E	0.3528	Adder	0.78
WEC	WEC	0.2867	Confirmed LTF	0.2867
LGEE	LGEE	0.5408	Confirmed LTF	0.5408
CPL	CPL	3.0006	Confirmed LTF	3.0006
CBM-W2	CBM-W2	11.5643	Confirmed LTF	11.5643
NY	NY	0.4120	Confirmed LTF	0.4120
CBM-W1	CBM-W1	10.6961	Confirmed LTF	10.6961
TVA	TVA	2.4332	Confirmed LTF	2.4332
O-066	O-066	5.8330	Confirmed LTF	5.8330
CBM-S2	CBM-S2	20.4265	Confirmed LTF	20.4265
CBM-S1	CBM-S1	13.5553	Confirmed LTF	13.5553
G-007	G-007	0.9110	Confirmed LTF	0.9110
MADISON	MADISON	0.6834	Confirmed LTF	0.6834
MEC	MEC	1.7400	Confirmed LTF	1.7400
AA2-074	AA2-074	2.0452	LTF	2.0452

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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
97708084	314331	6POE	DVP	314299	6HARROWG	DVP	1	DVP_P4-2: 562T563	breaker	541.0	141.45	142.22	DC	9.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.3501	50/50	0.3501
314539	3UNCAMP	0.6872	Adder	0.81
314541	3WATKINS	0.2020	Adder	0.24
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.0029	Adder	3.53
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.0029	Adder	3.53
900672	V4-068 E	0.0934	Adder	0.11
907092	X1-038 E	1.7181	Adder	2.02
917332	Z2-043 E	0.3606	Adder	0.42
917342	Z2-044 E	0.1895	Adder	0.22
917512	Z2-088 E OP1	1.1777	Adder	1.39
918492	AA1-063AE OP	1.4311	Adder	1.68
918512	AA1-065 E OP	1.1298	Adder	1.33
918532	AA1-067 E	0.2085	Adder	0.25
919692	AA2-053 E OP	1.3707	Adder	1.61
919702	AA2-057 E OP	1.1342	Adder	1.33
920042	AA2-088 E OP	3.3180	Adder	3.9
920592	AA2-165 E	0.1559	Adder	0.18
920672	AA2-174 E OP	0.1584	Adder	0.19
922922	AB1-081 C OP	2.8884	Adder	3.4
922923	AB1-081 E OP	1.2379	Adder	1.46
923262	AB1-132 C OP (Suspended)	6.0126	Adder	7.07
923263	AB1-132 E OP (Suspended)	2.5768	Adder	3.03
923572	AB1-173 C OP	1.0096	Adder	1.19
923573	AB1-173 E OP	0.4711	Adder	0.55
923582	AB1-173AC OP	1.0096	Adder	1.19
923583	AB1-173AE OP	0.4711	Adder	0.55
923801	AB2-015 C OP	2.4956	Adder	2.94
923802	AB2-015 E OP	2.0464	Adder	2.41
923852	AB2-025 E	0.9118	50/50	0.9118
923911	AB2-031 C O1	1.0021	Adder	1.18
923912	AB2-031 E O1	0.4936	Adder	0.58
923991	AB2-040 C O1	3.2905	Adder	3.87
923992	AB2-040 E O1	2.6922	Adder	3.17
924022	AB2-043 E O1	0.7888	Adder	0.93
924152	AB2-059 E OP	1.7537	Adder	2.06
924162	AB2-060 E OP	1.1840	Adder	1.39
924301	AB2-077 C O1 (Suspended)	0.5601	Adder	0.66

924302	AB2-077 E O1 (Suspended)	0.3734	Adder	0.44
924311	AB2-078 C O1 (Suspended)	0.5601	Adder	0.66
924312	AB2-078 E O1 (Suspended)	0.3734	Adder	0.44
924321	AB2-079 C O1 (Suspended)	0.5601	Adder	0.66
924322	AB2-079 E O1 (Suspended)	0.3734	Adder	0.44
924501	AB2-099 C (Suspended)	0.1773	Adder	0.21
924502	AB2-099 E (Suspended)	0.0760	Adder	0.09
924511	AB2-100 C	1.3143	50/50	1.3143
924512	AB2-100 E	3.7528	50/50	3.7528
925061	AB2-161 C O1 (Suspended)	2.4158	50/50	2.4158
925062	AB2-161 E O1 (Suspended)	3.9416	50/50	3.9416
925122	AB2-169 E	1.5101	Adder	1.78
925172	AB2-174 E O1	2.9357	Adder	3.45
925591	AC1-034 C	2.2050	Adder	2.59
925592	AC1-034 E	1.6634	Adder	1.96
925781	AC1-054 C O1	2.3459	Adder	2.76
925782	AC1-054 E O1	1.0807	Adder	1.27
926071	AC1-086 C	8.8543	Adder	10.42
926072	AC1-086 E	4.0299	Adder	4.74
926201	AC1-098 C	2.0384	Adder	2.4
926202	AC1-098 E	1.2144	Adder	1.43
926211	AC1-099 C	0.6831	Adder	0.8
926212	AC1-099 E	0.4012	Adder	0.47
926271	AC1-105 C O1 (Suspended)	1.4685	Adder	1.73
926272	AC1-105 E O1 (Suspended)	0.7310	Adder	0.86
927021	AC1-189 C	2.5727	Adder	3.03
927022	AC1-189 E	1.2815	Adder	1.51
927141	AC1-208 C	3.1122	Adder	3.66
927142	AC1-208 E	1.3819	Adder	1.63
932581	AC2-078 C O1	4.5616	50/50	4.5616
932582	AC2-078 E O1	7.4426	50/50	7.4426
932591	AC2-079 C O1	2.5898	Adder	3.05
932592	AC2-079 E O1	4.2255	Adder	4.97
932631	AC2-084 C	2.9058	Adder	3.42
932632	AC2-084 E	1.4312	Adder	1.68
934331	AD1-057 C O1	3.7094	Adder	4.36
934332	AD1-057 E O1	1.9787	Adder	2.33
934571	AD1-082 C	5.5056	50/50	5.5056
934572	AD1-082 E	3.1406	50/50	3.1406
934611	AD1-087 C O1	2.2736	Adder	2.67
934612	AD1-087 E O1	1.0686	Adder	1.26
935171	AD1-152 C O1	2.2595	Adder	2.66
935172	AD1-152 E O1	1.5063	Adder	1.77
936361	AD2-046 C O1	2.6732	Adder	3.14
936362	AD2-046 E O1	1.2293	Adder	1.45

936401	AD2-051 C O1	2.5014	Adder	2.94
936402	AD2-051 E O1	1.0741	Adder	1.26
936481	AD2-063 C O1	3.9604	Adder	4.66
936482	AD2-063 E O1	2.6183	Adder	3.08
936661	AD2-085 C	1.5789	Adder	1.86
936662	AD2-085 E	2.5762	Adder	3.03
936762	AD2-097 E	-2.9410	Adder	-3.46
937481	AD2-202 C O1	0.6025	Adder	0.71
937482	AD2-202 E O1	0.3389	Adder	0.4
938171	AE1-026 C O1	8.1805	Adder	9.62
938172	AE1-026 E O1	2.1582	Adder	2.54
938221	AE1-035 C	0.6308	Adder	0.74
938222	AE1-035 E	0.3107	Adder	0.37
938491	AE1-068 C O1	20.6407	Adder	24.28
938492	AE1-068 E O1	11.4001	Adder	13.41
938501	AE1-069 C O1	16.1400	Adder	18.99
938502	AE1-069 E O1	9.2274	Adder	10.86
938631	AE1-085 C O1	9.4765	50/50	9.4765
938632	AE1-085 E O1	4.7383	50/50	4.7383
938771	AE1-103 C O1	1.0308	Adder	1.21
938772	AE1-103 E O1	1.4235	Adder	1.67
939181	AE1-148 C O1	2.6282	Adder	3.09
939182	AE1-148 E O1	1.7522	Adder	2.06
939191	AE1-149 C O1	12.7956	50/50	12.7956
939192	AE1-149 E O1	8.5304	50/50	8.5304
939411	AE1-173 C	24.2638	Adder	28.55
939412	AE1-173 E	16.1758	Adder	19.03
940061	AE2-000BC O1	11.4435	50/50	11.4435
940062	AE2-000BE O1	7.6290	50/50	7.6290
940471	AE2-031 C	11.2374	Adder	13.22
940472	AE2-031 E	7.4916	Adder	8.81
940481	AE2-033 C	12.6994	50/50	12.6994
940482	AE2-033 E	8.5614	50/50	8.5614
940571	AE2-044 C	1.4442	Adder	1.7
940572	AE2-044 E	0.6189	Adder	0.73
940651	AE2-052	4.2652	50/50	4.2652
940661	AE2-053 O1	0.9734	Adder	1.15
941031	AE2-094 C	13.5348	Adder	15.92
941032	AE2-094 E	6.0619	Adder	7.13
941101	AE2-104 C O1	0.8265	Adder	0.97
941102	AE2-104 E O1	1.3139	Adder	1.55
941541	AE2-151 C	0.3249	Adder	0.38
941542	AE2-151 E	0.1749	Adder	0.21
942341	AE2-247 C	0.6889	Adder	0.81
942342	AE2-247 E	0.9513	Adder	1.12
942451	AE2-258	0.6581	Adder	0.77
942471	AE2-260 C O1	9.7098	50/50	9.7098
942472	AE2-260 E O1	13.7722	50/50	13.7722
942931	AE2-313 C	12.1674	Adder	14.31
942932	AE2-313 E	8.1116	Adder	9.54
943171	AE2-346 C	0.4256	Adder	0.5
943172	AE2-346 E	0.1824	Adder	0.21
943461	AF1-017 C	0.6233	Adder	0.73

943462	AF1-017 E	1.0169	Adder	1.2
943911	AF1-059	6.3283	Adder	7.45
944011	AF1-069 C	4.4223	Adder	5.2
944012	AF1-069 E	1.7180	Adder	2.02
944141	AF1-082	0.9284	Adder	1.09
945811	AF1-246 C O1	2.2784	Adder	2.68
945812	AF1-246 E O1	3.1463	Adder	3.7
946011	AF1-266	10.6304	50/50	10.6304
946281	AF1-292 C	0.7457	Adder	0.88
946282	AF1-292 E	0.5027	Adder	0.59
957481	AF2-042 C O1	8.5699	Adder	19.02
957482	AF2-042 E O1	5.7132	Adder	12.68
957521	AF2-046 C	2.7695	Adder	6.15
957522	AF2-046 E	1.3931	Adder	3.09
957861	AF2-080 C	1.2384	Adder	2.75
957862	AF2-080 E	0.5490	Adder	1.22
958161	AF2-110 C	0.1806	Adder	0.4
958162	AF2-110 E	0.2824	Adder	0.63
959231	AF2-214 C	1.6538	Adder	3.67
959232	AF2-214 E	2.4794	Adder	5.5
959511	AF2-242	1.1275	Adder	2.5
959731	AF2-264 C	0.3655	Adder	0.81
959732	AF2-264 E	0.1800	Adder	0.4
959751	AF2-266 O1	1.3233	Adder	2.94
960081	AF2-299 C	0.6661	Adder	1.48
960082	AF2-299 E	0.4441	Adder	0.99
960122	AF2-303 E O1	2.0580	Adder	4.57
960331	AF2-324 C O1	1.3391	Adder	2.97
960332	AF2-324 E O1	0.7189	Adder	1.6
960351	AF2-326 C	0.4368	Adder	0.97
960352	AF2-326 E	0.1092	Adder	0.24
960361	AF2-327 C	2.3496	50/50	2.3496
960362	AF2-327 E	0.5874	50/50	0.5874
960811	AF2-372 C	0.1875	Adder	0.42
960812	AF2-372 E	0.3060	Adder	0.68
960821	AF2-373 C	0.1331	Adder	0.3
960822	AF2-373 E	0.1996	Adder	0.44
960831	AF2-374 C	0.2160	Adder	0.48
960832	AF2-374 E	0.3524	Adder	0.78
961091	AF2-400 C	0.0714	Adder	0.16
961092	AF2-400 E	0.1172	Adder	0.26
961111	AF2-402 C O1	0.7542	50/50	0.7542
961112	AF2-402 E O1	1.2330	50/50	1.2330
WEC	WEC	0.2693	Confirmed LTF	0.2693
LGEE	LGEE	0.5089	Confirmed LTF	0.5089
CPL	CPL	2.8524	Confirmed LTF	2.8524
CBM-W2	CBM-W2	10.9173	Confirmed LTF	10.9173
NY	NY	0.3971	Confirmed LTF	0.3971
CBM-W1	CBM-W1	10.0455	Confirmed LTF	10.0455
TVA	TVA	2.3002	Confirmed LTF	2.3002
O-066	O-066	5.6112	Confirmed LTF	5.6112
CBM-S2	CBM-S2	19.3746	Confirmed LTF	19.3746
CBM-S1	CBM-S1	12.8056	Confirmed LTF	12.8056

G-007	G-007	0.8757	Confirmed LTF	0.8757
MADISON	MADISON	0.6492	Confirmed LTF	0.6492
MEC	MEC	1.6383	Confirmed LTF	1.6383
AA2-074	AA2-074	1.9440	LTF	1.9440

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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
97889873	314386	6KINGS M	DVP	314296	6PENNINGMAN	DVP	1	DVP_P1-2: LN 567	single	441.8	137.55	138.12	DC	5.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314295	6BIRDNECK	0.0216	80/20	0.0216
314421	6WINCHST	0.1174	80/20	0.1174
314491	3PENDLTN	0.1610	80/20	0.1610
314507	3THOMPSN	0.1616	80/20	0.1616
315092	1YORKTN3	21.6871	80/20	21.6871
315098	1CHESPKA	0.2137	80/20	0.2137
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3850	80/20	1.3850
315108	1ELIZAR1	1.5744	80/20	1.5744
315109	1ELIZAR2	1.5470	80/20	1.5470
315110	1ELIZAR3	1.5945	80/20	1.5945
315233	1SURRY 2	15.7051	80/20	15.7051
315260	1GOSPORTA	0.1706	80/20	0.1706
315261	1GOSPORTB	0.2179	80/20	0.2179
315262	1GOSPORTC	0.1849	80/20	0.1849
315294	1DOMTR10	3.3373	Adder	3.93
315603	6AA1-139SOLA	1.1905	80/20	1.1905
315611	6Z1-036WIND	2.4670	Adder	2.9
923801	AB2-015 C OP	2.7115	Adder	3.19
923831	AB2-022 C	0.8832	Adder	1.04
924501	AB2-099 C (Suspended)	0.1652	Adder	0.19
925061	AB2-161 C O1 (Suspended)	0.8266	Adder	0.97
925861	AC1-065 C	-2.2607	Adder	-2.66
926661	AC1-147 C	1.0474	80/20	1.0474
926751	AC1-161 C O1	15.6813	80/20	15.6813
926781	AC1-164 C	-14.4570	Adder	-17.01
932041	AC2-012 C	4.7384	80/20	4.7384
932501	AC2-070 C	-0.4125	Adder	-0.49
932591	AC2-079 C O1	1.6890	Adder	1.99
932831	AC2-110 C	-0.9043	Adder	-1.06
933261	AC2-137 C	-0.6062	Adder	-0.71
933271	AC2-138 C	-0.5379	Adder	-0.63
933291	AC2-141 C	15.6813	80/20	15.6813
933731	AC2-196 C	0.8356	80/20	0.8356
933991	AD1-023 C	4.1258	Adder	4.85
934061	AD1-033 C	3.5087	80/20	3.5087
934191	AD1-046 C	-2.7204	Adder	-3.2
934521	AD1-076 C	17.4570	Adder	20.54
934571	AD1-082 C	1.8837	Adder	2.22
935111	AD1-144 C	0.8444	80/20	0.8444
936151	AD2-021	-0.0691	Adder	-0.08

936301	AD2-039 C	-0.9043	Adder	-1.06
936341	AD2-044 C	-0.1681	Adder	-0.2
936401	AD2-051 C O1	2.5659	Adder	3.02
936661	AD2-085 C	1.0055	Adder	1.18
937221	AD2-160 C O1	2.7080	80/20	2.7080
937251	AD2-164 (Withdrawn : 06/30/2020)	3.8843	80/20	3.8843
937541	AD2-215 C	0.8531	80/20	0.8531
938031	AE1-004 C	-0.9043	Adder	-1.06
938171	AE1-026 C O1	9.9367	Adder	11.69
938221	AE1-035 C	0.6610	Adder	0.78
938531	AE1-072 C O1	8.0586	80/20	8.0586
938771	AE1-103 C O1	1.1652	Adder	1.37
938961	AE1-124 C	-1.1785	Adder	-1.39
939311	AE1-162 C	0.7760	Adder	0.91
939411	AE1-173 C	26.8994	Adder	31.65
939421	AE1-174 C (Withdrawn : 06/16/2020)	0.1971	80/20	0.1971
939431	AE1-175 C	1.3107	80/20	1.3107
940061	AE2-000BC O1	3.9153	Adder	4.61
940251	AE2-007 O1	80.6978	80/20	80.6978
940491	AE2-034 C	2.4240	Adder	2.85
940641	AE2-051 C O1	4.5686	Adder	5.37
940891	AE2-078 C	1.1039	80/20	1.1039
940901	AE2-079 C	1.1039	80/20	1.1039
941031	AE2-094 C	8.8183	Adder	10.37
941101	AE2-104 C O1	1.2070	Adder	1.42
941281	AE2-122 C O1	13.2491	80/20	13.2491
941291	AE2-123 C O1	13.6160	80/20	13.6160
941301	AE2-124 C O1	12.3849	80/20	12.3849
941501	AE2-147 C	5.9708	Adder	7.02
941541	AE2-151 C	0.3058	Adder	0.36
941591	AE2-156 O1	8.3250	80/20	8.3250
942131	AE2-225 C	0.9862	80/20	0.9862
942171	AE2-229 C	0.9862	80/20	0.9862
942341	AE2-247 C	0.4344	Adder	0.51
942401	AE2-253 C	2.8483	80/20	2.8483
942851	AE2-304 C	0.2332	Adder	0.27
943171	AE2-346 C	0.3965	Adder	0.47
943461	AF1-017 C	0.3930	Adder	0.46
943611	AF1-032 C	0.8054	80/20	0.8054
943621	AF1-033 C	1.1039	80/20	1.1039
944011	AF1-069 C	2.8813	Adder	3.39
944501	AF1-115 C O1	3.3619	80/20	3.3619
944581	AF1-123 C O1	22.7964	80/20	22.7964
944591	AF1-124 C O1	22.7964	80/20	22.7964
944601	AF1-125 C O1	22.7964	80/20	22.7964
944871	AF1-152 C	1.9903	Adder	2.34
945361	AF1-201 C O1	5.6136	Adder	6.6
945711	AF1-236 C O1	26.5374	Adder	31.22
957491	AF2-043 C	0.9862	80/20	0.9862
957521	AF2-046 C	2.5169	Adder	5.59
957531	AF2-047 C	3.0528	Adder	6.78
957631	AF2-057	1.6626	80/20	1.6626

957791	AF2-073 C (Withdrawn : 07/02/2020)	1.8633	Adder	4.14
957801	AF2-074 C (Withdrawn : 07/02/2020)	0.8282	Adder	1.84
957821	AF2-076 C O1	1.0901	Adder	2.42
957871	AF2-081 C O1	4.6010	80/20	4.6010
958161	AF2-110 C	0.2637	Adder	0.59
959511	AF2-242	1.1642	Adder	2.58
959731	AF2-264 C	0.3365	Adder	0.75
960101	AF2-301 C	1.5672	80/20	1.5672
960831	AF2-374 C	0.1789	Adder	0.4
961091	AF2-400 C	0.0776	Adder	0.17
961111	AF2-402 C O1	0.1519	Adder	0.34
WEC	WEC	0.1269	Confirmed LTF	0.1269
LGEE	LGEE	0.2436	Confirmed LTF	0.2436
CPL	CPL	1.8952	Confirmed LTF	1.8952
CBM-W2	CBM-W2	6.0197	Confirmed LTF	6.0197
NY	NY	0.3661	Confirmed LTF	0.3661
CBM-W1	CBM-W1	4.6037	Confirmed LTF	4.6037
TVA	TVA	1.3314	Confirmed LTF	1.3314
CBM-S2	CBM-S2	12.4848	Confirmed LTF	12.4848
CBM-S1	CBM-S1	7.2676	Confirmed LTF	7.2676
MADISON	MADISON	0.4536	Confirmed LTF	0.4536
MEC	MEC	0.8342	Confirmed LTF	0.8342

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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
97889961	314415	6WALR209	DVP	314391	6LIGH209	DVP	1	DVP_P1-2: LN 567	single	441.8	118.78	119.36	DC	5.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314295	6BIRDNECK	0.0216	80/20	0.0216
314421	6WINCHST	0.1174	80/20	0.1174
314491	3PENDLTN	0.1610	80/20	0.1610
314507	3THOMPSN	0.1616	80/20	0.1616
315092	1YORKTN3	21.6871	80/20	21.6871
315098	1CHESPKA	0.2137	80/20	0.2137
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3850	80/20	1.3850
315108	1ELIZAR1	1.5744	80/20	1.5744
315109	1ELIZAR2	1.5470	80/20	1.5470
315110	1ELIZAR3	1.5945	80/20	1.5945
315233	1SURRY 2	15.7051	80/20	15.7051
315260	1GOSPORTA	0.1706	80/20	0.1706
315261	1GOSPORTB	0.2179	80/20	0.2179
315262	1GOSPORTC	0.1849	80/20	0.1849
315294	1DOMTR10	3.3373	Adder	3.93
315603	6AA1-139SOLA	1.1905	80/20	1.1905
315611	6Z1-036WIND	2.4670	Adder	2.9
923801	AB2-015 C OP	2.7115	Adder	3.19
923831	AB2-022 C	0.8832	Adder	1.04
924501	AB2-099 C (Suspended)	0.1652	Adder	0.19
925061	AB2-161 C O1 (Suspended)	0.8266	Adder	0.97
925861	AC1-065 C	-2.2607	Adder	-2.66
926661	AC1-147 C	1.0474	80/20	1.0474
926751	AC1-161 C O1	15.6813	80/20	15.6813
926781	AC1-164 C	-14.4570	Adder	-17.01
932041	AC2-012 C	4.7384	80/20	4.7384
932501	AC2-070 C	-0.4125	Adder	-0.49
932591	AC2-079 C O1	1.6890	Adder	1.99
932831	AC2-110 C	-0.9043	Adder	-1.06
933261	AC2-137 C	-0.6062	Adder	-0.71
933271	AC2-138 C	-0.5379	Adder	-0.63
933291	AC2-141 C	15.6813	80/20	15.6813
933731	AC2-196 C	0.8356	80/20	0.8356
933991	AD1-023 C	4.1258	Adder	4.85
934061	AD1-033 C	3.5087	80/20	3.5087
934191	AD1-046 C	-2.7204	Adder	-3.2
934521	AD1-076 C	17.4570	Adder	20.54
934571	AD1-082 C	1.8837	Adder	2.22
935111	AD1-144 C	0.8444	80/20	0.8444
936151	AD2-021	-0.0691	Adder	-0.08

936301	AD2-039 C	-0.9043	Adder	-1.06
936341	AD2-044 C	-0.1681	Adder	-0.2
936401	AD2-051 C O1	2.5659	Adder	3.02
936661	AD2-085 C	1.0055	Adder	1.18
937221	AD2-160 C O1	2.7080	80/20	2.7080
937251	AD2-164 (Withdrawn : 06/30/2020)	3.8843	80/20	3.8843
937541	AD2-215 C	0.8531	80/20	0.8531
938031	AE1-004 C	-0.9043	Adder	-1.06
938171	AE1-026 C O1	9.9367	Adder	11.69
938221	AE1-035 C	0.6610	Adder	0.78
938531	AE1-072 C O1	8.0586	80/20	8.0586
938771	AE1-103 C O1	1.1652	Adder	1.37
938961	AE1-124 C	-1.1785	Adder	-1.39
939311	AE1-162 C	0.7760	Adder	0.91
939411	AE1-173 C	26.8994	Adder	31.65
939421	AE1-174 C (Withdrawn : 06/16/2020)	0.1971	80/20	0.1971
939431	AE1-175 C	1.3107	80/20	1.3107
940061	AE2-000BC O1	3.9153	Adder	4.61
940251	AE2-007 O1	80.6978	80/20	80.6978
940491	AE2-034 C	2.4240	Adder	2.85
940641	AE2-051 C O1	4.5686	Adder	5.37
940891	AE2-078 C	1.1039	80/20	1.1039
940901	AE2-079 C	1.1039	80/20	1.1039
941031	AE2-094 C	8.8183	Adder	10.37
941101	AE2-104 C O1	1.2070	Adder	1.42
941281	AE2-122 C O1	13.2491	80/20	13.2491
941291	AE2-123 C O1	13.6160	80/20	13.6160
941301	AE2-124 C O1	12.3849	80/20	12.3849
941501	AE2-147 C	5.9708	Adder	7.02
941541	AE2-151 C	0.3058	Adder	0.36
941591	AE2-156 O1	8.3250	80/20	8.3250
942131	AE2-225 C	0.9862	80/20	0.9862
942171	AE2-229 C	0.9862	80/20	0.9862
942341	AE2-247 C	0.4344	Adder	0.51
942401	AE2-253 C	2.8483	80/20	2.8483
942851	AE2-304 C	0.2332	Adder	0.27
943171	AE2-346 C	0.3965	Adder	0.47
943461	AF1-017 C	0.3930	Adder	0.46
943611	AF1-032 C	0.8054	80/20	0.8054
943621	AF1-033 C	1.1039	80/20	1.1039
944011	AF1-069 C	2.8813	Adder	3.39
944501	AF1-115 C O1	3.3619	80/20	3.3619
944581	AF1-123 C O1	22.7964	80/20	22.7964
944591	AF1-124 C O1	22.7964	80/20	22.7964
944601	AF1-125 C O1	22.7964	80/20	22.7964
944871	AF1-152 C	1.9903	Adder	2.34
945361	AF1-201 C O1	5.6136	Adder	6.6
945711	AF1-236 C O1	26.5374	Adder	31.22
957491	AF2-043 C	0.9862	80/20	0.9862
957521	AF2-046 C	2.5169	Adder	5.59
957531	AF2-047 C	3.0528	Adder	6.78
957631	AF2-057	1.6626	80/20	1.6626

957791	AF2-073 C (Withdrawn : 07/02/2020)	1.8633	Adder	4.14
957801	AF2-074 C (Withdrawn : 07/02/2020)	0.8282	Adder	1.84
957821	AF2-076 C O1	1.0901	Adder	2.42
957871	AF2-081 C O1	4.6010	80/20	4.6010
958161	AF2-110 C	0.2637	Adder	0.59
959511	AF2-242	1.1642	Adder	2.58
959731	AF2-264 C	0.3365	Adder	0.75
960101	AF2-301 C	1.5672	80/20	1.5672
960831	AF2-374 C	0.1789	Adder	0.4
961091	AF2-400 C	0.0776	Adder	0.17
961111	AF2-402 C O1	0.1519	Adder	0.34
WEC	WEC	0.1269	Confirmed LTF	0.1269
LGEE	LGEE	0.2436	Confirmed LTF	0.2436
CPL	CPL	1.8952	Confirmed LTF	1.8952
CBM-W2	CBM-W2	6.0197	Confirmed LTF	6.0197
NY	NY	0.3661	Confirmed LTF	0.3661
CBM-W1	CBM-W1	4.6037	Confirmed LTF	4.6037
TVA	TVA	1.3314	Confirmed LTF	1.3314
CBM-S2	CBM-S2	12.4848	Confirmed LTF	12.4848
CBM-S1	CBM-S1	7.2676	Confirmed LTF	7.2676
MADISON	MADISON	0.4536	Confirmed LTF	0.4536
MEC	MEC	0.8342	Confirmed LTF	0.8342

11.6.23 Index 23

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
96828559	314554	3BTLEBRO	DVP	304223	3ROCKYMT115T	CPL	1	DVP_P7-1: LN 2058-2181	tower	93.0	438.09	444.16	DC	12.53

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314541	3WATKINS	0.2106	Adder	0.25
314582	3KELFORD	0.3883	50/50	0.3883
314623	3WITAKRS	0.5537	50/50	0.5537
315131	1EDGECEMA (Deactivation : 22/04/2019)	12.1487	50/50	12.1487
315132	1EDGECEMB (Deactivation : 22/04/2019)	12.1487	50/50	12.1487
315136	1ROSEMG1	1.5941	50/50	1.5941
315137	1ROSEMS1	0.9885	50/50	0.9885
315138	1ROSEMG2	0.7471	50/50	0.7471
315139	1GASTONA	2.0488	50/50	2.0488
315141	1GASTONB	2.0488	50/50	2.0488
315601	1CONETOESOL	1.3283	50/50	1.3283
315612	3AA2-057SOLA	2.5571	50/50	2.5571
900672	V4-068 E	0.1239	Adder	0.15
917332	Z2-043 E	0.9788	50/50	0.9788
917342	Z2-044 E	1.3758	50/50	1.3758
917512	Z2-088 E OP1	3.3002	50/50	3.3002
918492	AA1-063AE OP	1.9451	Adder	2.29
918512	AA1-065 E OP	1.4319	Adder	1.68
918532	AA1-067 E	0.2468	Adder	0.29
919692	AA2-053 E OP	1.9800	Adder	2.33
919702	AA2-057 E OP	6.9976	50/50	6.9976
920042	AA2-088 E OP	4.0200	Adder	4.73
920591	AA2-165 C	0.3032	50/50	0.3032
920592	AA2-165 E	0.9618	50/50	0.9618
920672	AA2-174 E OP	0.2288	Adder	0.27
922922	AB1-081 C OP	22.9723	50/50	22.9723
922923	AB1-081 E OP	9.8453	50/50	9.8453
923262	AB1-132 C OP (Suspended)	9.0703	50/50	9.0703
923263	AB1-132 E OP (Suspended)	3.8873	50/50	3.8873
923572	AB1-173 C OP	1.0085	Adder	1.19
923573	AB1-173 E OP	0.4707	Adder	0.55
923582	AB1-173AC OP	1.0085	Adder	1.19
923583	AB1-173AE OP	0.4707	Adder	0.55
923911	AB2-031 C O1	1.0011	Adder	1.18
923912	AB2-031 E O1	0.4931	Adder	0.58
923991	AB2-040 C O1	3.2871	Adder	3.87
923992	AB2-040 E O1	2.6894	Adder	3.16

924151	AB2-059 C OP	4.6702	50/50	4.6702
924152	AB2-059 E OP	13.9475	50/50	13.9475
924501	AB2-099 C (Suspended)	0.2638	Adder	0.31
924502	AB2-099 E (Suspended)	0.1131	Adder	0.13
924512	AB2-100 E	2.0948	Adder	2.46
925172	AB2-174 E O1	2.7106	Adder	3.19
925591	AC1-034 C	17.5369	50/50	17.5369
925592	AC1-034 E	13.2296	50/50	13.2296
926071	AC1-086 C	13.3571	50/50	13.3571
926072	AC1-086 E	6.0793	50/50	6.0793
926201	AC1-098 C	8.4859	50/50	8.4859
926202	AC1-098 E	5.0555	50/50	5.0555
926211	AC1-099 C	2.8437	50/50	2.8437
926212	AC1-099 E	1.6701	50/50	1.6701
927021	AC1-189 C	6.0732	50/50	6.0732
927022	AC1-189 E	3.0252	50/50	3.0252
927141	AC1-208 C	13.5254	50/50	13.5254
927142	AC1-208 E	6.0058	50/50	6.0058
932631	AC2-084 C	12.0970	50/50	12.0970
932632	AC2-084 E	5.9582	50/50	5.9582
934331	AD1-057 C O1	10.1862	50/50	10.1862
934332	AD1-057 E O1	5.4338	50/50	5.4338
936401	AD2-051 C O1	3.1726	Adder	3.73
936402	AD2-051 E O1	1.3623	Adder	1.6
938171	AE1-026 C O1	9.9093	Adder	11.66
938172	AE1-026 E O1	2.6143	Adder	3.08
938221	AE1-035 C	0.7995	Adder	0.94
938222	AE1-035 E	0.3938	Adder	0.46
940571	AE2-044 C	11.4862	50/50	11.4862
940572	AE2-044 E	4.9226	50/50	4.9226
941541	AE2-151 C	0.5014	Adder	0.59
941542	AE2-151 E	0.2700	Adder	0.32
942471	AE2-260 C O1	4.9565	Adder	5.83
942472	AE2-260 E O1	7.0302	Adder	8.27
943171	AE2-346 C	0.6332	Adder	0.74
943172	AE2-346 E	0.2714	Adder	0.32
944141	AF1-082	7.3840	50/50	7.3840
946281	AF1-292 C	0.5556	Adder	0.65
946282	AF1-292 E	0.3746	Adder	0.44
957521	AF2-046 C	3.7559	Adder	8.34
957522	AF2-046 E	1.8893	Adder	4.19
957861	AF2-080 C	5.5159	50/50	5.5159
957862	AF2-080 E	2.4452	50/50	2.4452
959231	AF2-214 C	24.8183	50/50	24.8183
959232	AF2-214 E	37.2070	50/50	37.2070
959511	AF2-242	1.3281	Adder	2.95
959731	AF2-264 C	0.5208	Adder	1.16
959732	AF2-264 E	0.2565	Adder	0.57
960081	AF2-299 C	0.4963	Adder	1.1
960082	AF2-299 E	0.3309	Adder	0.73
960122	AF2-303 E O1	15.7095	50/50	15.7095
960331	AF2-324 C O1	10.2216	50/50	10.2216
960332	AF2-324 E O1	5.4879	50/50	5.4879

960351	AF2-326 C	6.9299	50/50	6.9299
960352	AF2-326 E	1.7325	50/50	1.7325
960831	AF2-374 C	0.3253	Adder	0.72
960832	AF2-374 E	0.5307	Adder	1.18
NEWTON	NEWTON	0.8596	Confirmed LTF	0.8596
FARMERCITY	FARMERCITY	0.0493	Confirmed LTF	0.0493
G-007A	G-007A	0.5131	Confirmed LTF	0.5131
VFT	VFT	1.3610	Confirmed LTF	1.3610
CALDERWOOD	CALDERWOOD	0.6834	Confirmed LTF	0.6834
PRAIRIE	PRAIRIE	2.3221	Confirmed LTF	2.3221
CHEOAH	CHEOAH	0.7007	Confirmed LTF	0.7007
EDWARDS	EDWARDS	0.2597	Confirmed LTF	0.2597
TILTON	TILTON	0.4593	Confirmed LTF	0.4593
GIBSON	GIBSON	0.4155	Confirmed LTF	0.4155
BLUEG	BLUEG	1.2812	Confirmed LTF	1.2812
TRIMBLE	TRIMBLE	0.4068	Confirmed LTF	0.4068
CATAWBA	CATAWBA	0.7382	Confirmed LTF	0.7382

11.6.24 Index 24

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97708121	314561	6CAROLNA	DVP	314583	6LAKEVEW	DVP	1	DVP_P4-2: 246T247	breaker	459.0	118.6	126.01	DC	34.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314539	3UNCAMP	1.4053	Adder	1.65
314541	3WATKINS	0.5711	50/50	0.5711
314574	6EVERETS	0.2227	50/50	0.2227
314582	3KELFORD	0.6290	50/50	0.6290
314589	3MURPHYS	0.1233	50/50	0.1233
315115	1S HAMPT1	1.3410	50/50	1.3410
315126	1ROARAP2	2.6110	50/50	2.6110
315128	1ROARAP4	2.4916	50/50	2.4916
315292	1DOMTR78	1.4736	50/50	1.4736
315294	1DOMTR10	11.0717	50/50	11.0717
315602	1HOLLOMANSOL	2.5426	50/50	2.5426
315606	3AA2-053SOLA	2.6531	50/50	2.6531
315607	3AA1-063SOLA	2.3064	50/50	2.3064
315608	3AA2-088SOLA	1.2826	50/50	1.2826
315611	6Z1-036WIND	3.8033	Adder	4.47
315614	AA2-178 C	1.5334	50/50	1.5334
900672	V4-068 E	0.3918	50/50	0.3918
901082	W1-029 E	14.4727	Adder	17.03
907092	X1-038 E	3.5132	Adder	4.13
916042	21-036 E (Suspended)	25.4821	Adder	29.98
917122	Z2-027 E	0.3785	Adder	0.45
917332	Z2-043 E	1.5854	50/50	1.5854
918492	AA1-063AE OP	6.3046	50/50	6.3046
918512	AA1-065 E OP	6.6002	50/50	6.6002
918532	AA1-067 E	0.5533	50/50	0.5533
919692	AA2-053 E OP	6.6044	50/50	6.6044
919702	AA2-057 E OP	1.4685	Adder	1.73
920042	AA2-088 E OP	12.1315	50/50	12.1315
920592	AA2-165 E	0.2018	Adder	0.24
920671	AA2-174 C OP	0.1215	50/50	0.1215
920672	AA2-174 E OP	0.7632	50/50	0.7632
920692	AA2-178 E	3.8098	50/50	3.8098
923572	AB1-173 C OP	1.6126	50/50	1.6126
923573	AB1-173 E OP	0.7525	50/50	0.7525
923582	AB1-173AC OP	1.6126	50/50	1.6126
923583	AB1-173AE OP	0.7525	50/50	0.7525
923801	AB2-015 C OP	6.6240	50/50	6.6240
923802	AB2-015 E OP	5.4317	50/50	5.4317
923911	AB2-031 C O1	1.6006	50/50	1.6006
923912	AB2-031 E O1	0.7884	50/50	0.7884
923991	AB2-040 C O1	5.2558	50/50	5.2558

923992	AB2-040 E O1	4.3002	50/50	4.3002
924501	AB2-099 C (Suspended)	0.8753	50/50	0.8753
924502	AB2-099 E (Suspended)	0.3751	50/50	0.3751
925121	AB2-169 C	1.0466	50/50	1.0466
925122	AB2-169 E	5.4450	50/50	5.4450
925172	AB2-174 E O1	2.5943	Adder	3.05
925781	AC1-054 C O1	6.8250	50/50	6.8250
925782	AC1-054 E O1	3.1441	50/50	3.1441
926201	AC1-098 C	6.3394	50/50	6.3394
926202	AC1-098 E	3.7766	50/50	3.7766
926211	AC1-099 C	2.1244	50/50	2.1244
926212	AC1-099 E	1.2476	50/50	1.2476
927141	AC1-208 C	8.9621	50/50	8.9621
927142	AC1-208 E	3.9795	50/50	3.9795
932631	AC2-084 C	9.0370	50/50	9.0370
932632	AC2-084 E	4.4510	50/50	4.4510
933991	AD1-023 C	16.1927	50/50	16.1927
933992	AD1-023 E	8.8153	50/50	8.8153
934521	AD1-076 C	59.2718	50/50	59.2718
934522	AD1-076 E	30.1811	50/50	30.1811
936361	AD2-046 C O1	4.4782	Adder	5.27
936362	AD2-046 E O1	2.0593	Adder	2.42
936401	AD2-051 C O1	14.9094	50/50	14.9094
936402	AD2-051 E O1	6.4019	50/50	6.4019
938171	AE1-026 C O1	42.1521	50/50	42.1521
938172	AE1-026 E O1	11.1207	50/50	11.1207
938221	AE1-035 C	3.6851	50/50	3.6851
938222	AE1-035 E	1.8151	50/50	1.8151
938771	AE1-103 C O1	2.1079	Adder	2.48
938772	AE1-103 E O1	2.9109	Adder	3.42
939181	AE1-148 C O1	4.3151	Adder	5.08
939182	AE1-148 E O1	2.8767	Adder	3.38
940491	AE2-034 C	6.6671	50/50	6.6671
940492	AE2-034 E	2.8573	50/50	2.8573
940661	AE2-053 O1	1.5982	Adder	1.88
941501	AE2-147 C	7.1964	Adder	8.47
941502	AE2-147 E	4.7976	Adder	5.64
941541	AE2-151 C	1.6871	50/50	1.6871
941542	AE2-151 E	0.9085	50/50	0.9085
942851	AE2-304 C	0.3142	Adder	0.37
942852	AE2-304 E	0.1222	Adder	0.14
943171	AE2-346 C	2.1008	50/50	2.1008
943172	AE2-346 E	0.9004	50/50	0.9004
944871	AF1-152 C	2.3988	Adder	2.82
944872	AF1-152 E	1.5992	Adder	1.88
945711	AF1-236 C O1	72.9887	50/50	72.9887
945712	AF1-236 E O1	119.0867	50/50	119.0867
946012	AF1-266 BAT	7.7860	Merchant Transmission	7.7860
957521	AF2-046 C	22.6277	50/50	22.6277
957522	AF2-046 E	11.3818	50/50	11.3818
957531	AF2-047 C	15.8423	50/50	15.8423
957532	AF2-047 E	7.9687	50/50	7.9687
959511	AF2-242	6.8918	50/50	6.8918

959731	AF2-264 C	3.2046	50/50	3.2046
959732	AF2-264 E	1.5784	50/50	1.5784
960831	AF2-374 C	2.0586	50/50	2.0586
960832	AF2-374 E	3.3588	50/50	3.3588
961091	AF2-400 C	0.3577	50/50	0.3577
961092	AF2-400 E	0.5869	50/50	0.5869
WEC	WEC	0.0466	Confirmed LTF	0.0466
LGEE	LGEE	0.0873	Confirmed LTF	0.0873
CPL	CPL	0.5715	Confirmed LTF	0.5715
CBM-W2	CBM-W2	1.7772	Confirmed LTF	1.7772
NY	NY	0.0503	Confirmed LTF	0.0503
CBM-W1	CBM-W1	1.7514	Confirmed LTF	1.7514
TVA	TVA	0.3654	Confirmed LTF	0.3654
O-066	O-066	0.7325	Confirmed LTF	0.7325
CBM-S2	CBM-S2	3.2079	Confirmed LTF	3.2079
CBM-S1	CBM-S1	2.0533	Confirmed LTF	2.0533
G-007	G-007	0.1144	Confirmed LTF	0.1144
MADISON	MADISON	0.0927	Confirmed LTF	0.0927
MEC	MEC	0.2749	Confirmed LTF	0.2749

11.6.25 Index 25

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97890056	314563	6CLUBHSE	DVP	940480	AE2-033 TAP	DVP	1	DVP_P1-2: LN 246	single	678.68	106.84	109.63	DC	18.87

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.1786	80/20	0.1786
314574	6EVERETS	0.2978	80/20	0.2978
314582	3KELFORD	0.5911	80/20	0.5911
314589	3MURPHYS	0.1034	80/20	0.1034
314623	3WITAKRS	0.2748	80/20	0.2748
314704	3LAWRENC	0.6598	80/20	0.6598
315126	1ROARAP2	2.4069	80/20	2.4069
315128	1ROARAP4	2.2969	80/20	2.2969
315131	1EDGECEMA (Deactivation : 22/04/2019)	10.4870	80/20	10.4870
315132	1EDGECEMB (Deactivation : 22/04/2019)	10.4870	80/20	10.4870
315136	1ROSEMG1	4.3510	80/20	4.3510
315137	1ROSEMS1	2.6981	80/20	2.6981
315138	1ROSEMG2	2.0392	80/20	2.0392
315139	1GASTONA	6.6397	80/20	6.6397
315141	1GASTONB	6.6397	80/20	6.6397
315158	1KERR 1	0.4004	80/20	0.4004
315159	1KERR 2	1.1211	80/20	1.1211
315160	1KERR 3	1.1211	80/20	1.1211
315161	1KERR 4	1.1211	80/20	1.1211
315162	1KERR 5	1.1211	80/20	1.1211
315163	1KERR 6	1.1211	80/20	1.1211
315164	1KERR 7	1.1211	80/20	1.1211
315294	1DOMTR10	7.7360	Adder	9.1
315601	1CONETOE2SOL	1.6679	80/20	1.6679
315602	1HOLLOMANSOL	1.9050	80/20	1.9050
315606	3AA2-053SOLA	2.3998	80/20	2.3998
315607	3AA1-063SOLA	2.0776	80/20	2.0776
315608	3AA2-088SOLA	1.0877	80/20	1.0877
315612	3AA2-057SOLA	1.5532	80/20	1.5532
920591	AA2-165 C	0.1842	80/20	0.1842
920671	AA2-174 C OP	0.1099	80/20	0.1099
922922	AB1-081 C OP	9.9915	80/20	9.9915
923262	AB1-132 C OP (Suspended)	29.3941	80/20	29.3941
923572	AB1-173 C OP	4.9282	80/20	4.9282
923582	AB1-173AC OP	4.9282	80/20	4.9282
923801	AB2-015 C OP	4.4408	Adder	5.22
923911	AB2-031 C O1	4.8917	80/20	4.8917
923991	AB2-040 C O1	16.0622	80/20	16.0622
924021	AB2-043 C O1	0.4591	80/20	0.4591

924151	AB2-059 C OP	2.0312	80/20	2.0312
924301	AB2-077 C O1 (Suspended)	1.4190	Adder	1.67
924311	AB2-078 C O1 (Suspended)	1.4190	Adder	1.67
924321	AB2-079 C O1 (Suspended)	1.4190	Adder	1.67
924501	AB2-099 C (Suspended)	0.7159	80/20	0.7159
924511	AB2-100 C	6.1828	80/20	6.1828
925121	AB2-169 C	0.9963	80/20	0.9963
925171	AB2-174 C O1	2.7816	80/20	2.7816
925591	AC1-034 C	7.6275	80/20	7.6275
925611	AC1-036 C	0.5297	Adder	0.62
925781	AC1-054 C O1	8.2561	80/20	8.2561
926071	AC1-086 C	43.2863	80/20	43.2863
926201	AC1-098 C	8.1389	80/20	8.1389
926211	AC1-099 C	2.7274	80/20	2.7274
927021	AC1-189 C	9.0769	80/20	9.0769
927141	AC1-208 C	12.4295	80/20	12.4295
932631	AC2-084 C	11.6023	80/20	11.6023
933991	AD1-023 C	11.8446	80/20	11.8446
934331	AD1-057 C O1	15.6425	80/20	15.6425
934521	AD1-076 C	36.3805	Adder	42.8
936261	AD2-033 C	7.6218	Adder	8.97
936361	AD2-046 C O1	8.3608	80/20	8.3608
936401	AD2-051 C O1	10.9988	80/20	10.9988
936481	AD2-063 C O1	9.8440	Adder	11.58
938171	AE1-026 C O1	31.0221	80/20	31.0221
938221	AE1-035 C	2.7609	80/20	2.7609
939181	AE1-148 C O1	8.2053	80/20	8.2053
940241	AE2-006	0.2695	Adder	0.32
940491	AE2-034 C	3.7003	Adder	4.35
940571	AE2-044 C	4.9958	80/20	4.9958
940661	AE2-053 O1	3.0390	80/20	3.0390
941541	AE2-151 C	1.3703	80/20	1.3703
942451	AE2-258	1.9856	80/20	1.9856
942471	AE2-260 C O1	46.1557	80/20	46.1557
943171	AE2-346 C	1.7182	80/20	1.7182
943911	AF1-059	27.1930	80/20	27.1930
944141	AF1-082	3.2116	80/20	3.2116
945711	AF1-236 C O1	40.5095	Adder	47.66
946281	AF1-292 C	3.8607	80/20	3.8607
957521	AF2-046 C	18.8722	80/20	18.8722
957531	AF2-047 C	4.6601	Adder	10.34
957861	AF2-080 C	8.2440	80/20	8.2440
959231	AF2-214 C	10.7944	80/20	10.7944
959311	AF2-222 C	4.7514	Adder	10.55
959511	AF2-242	7.3963	80/20	7.3963
959731	AF2-264 C	2.6440	80/20	2.6440
960081	AF2-299 C	6.5069	80/20	6.5069
960331	AF2-324 C O1	8.8235	80/20	8.8235
960351	AF2-326 C	2.8450	80/20	2.8450
960811	AF2-372 C	0.4751	Adder	1.05
960831	AF2-374 C	1.7405	80/20	1.7405

961091	AF2-400 C	0.1271	Adder	0.28
WEC	WEC	0.3200	Confirmed LTF	0.3200
LGEE	LGEE	0.6013	Confirmed LTF	0.6013
CPL	CPL	3.6442	Confirmed LTF	3.6442
CBM-W2	CBM-W2	12.5798	Confirmed LTF	12.5798
NY	NY	0.3744	Confirmed LTF	0.3744
CBM-W1	CBM-W1	11.9971	Confirmed LTF	11.9971
TVA	TVA	2.6222	Confirmed LTF	2.6222
CBM-S2	CBM-S2	22.6576	Confirmed LTF	22.6576
CBM-S1	CBM-S1	14.6629	Confirmed LTF	14.6629
MADISON	MADISON	0.7096	Confirmed LTF	0.7096
MEC	MEC	1.9179	Confirmed LTF	1.9179
AA2-074	AA2-074	2.4836	LTF	2.4836

11.6.26 Index 26

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97889809	314575	6NUCO TP	DVP	957790	AF2-073 TAP	DVP	1	DVP_P1-2: LN 2131	single	571.52	146.78	150.33	DC	20.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0506	80/20	0.0506
314574	6EVERETS	0.4657	80/20	0.4657
314582	3KELFORD	0.7842	80/20	0.7842
314589	3MURPHYS	0.1032	80/20	0.1032
314623	3WITAKRS	0.2359	80/20	0.2359
314704	3LAWRENC	0.1825	80/20	0.1825
315126	1ROARAP2	1.4097	80/20	1.4097
315128	1ROARAP4	1.3452	80/20	1.3452
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315136	1ROSEMG1	2.3511	80/20	2.3511
315137	1ROSEMS1	1.4579	80/20	1.4579
315138	1ROSEMG2	1.1019	80/20	1.1019
315139	1GASTONA	3.4385	80/20	3.4385
315141	1GASTONB	3.4385	80/20	3.4385
315161	1KERR 4	0.5966	80/20	0.5966
315162	1KERR 5	0.5966	80/20	0.5966
315163	1KERR 6	0.5966	80/20	0.5966
315164	1KERR 7	0.5966	80/20	0.5966
315292	1DOMTR78	2.8729	80/20	2.8729
315294	1DOMTR10	21.5849	80/20	21.5849
315601	1CONETOE2SOL	1.9914	80/20	1.9914
315602	1HOLLOMANSOL	3.5568	80/20	3.5568
315606	3AA2-053SOLA	1.7258	80/20	1.7258
315607	3AA1-063SOLA	1.2920	80/20	1.2920
315608	3AA2-088SOLA	0.7480	80/20	0.7480
315611	6Z1-036WIND	-2.9421	Adder	-3.46
315612	3AA2-057SOLA	1.3289	80/20	1.3289
315614	AA2-178 C	3.4313	80/20	3.4313
920591	AA2-165 C	0.1576	80/20	0.1576
920671	AA2-174 C OP	0.0790	80/20	0.0790
922922	AB1-081 C OP	8.5938	80/20	8.5938
923262	AB1-132 C OP (Suspended)	15.2225	80/20	15.2225
923572	AB1-173 C OP	1.8023	80/20	1.8023
923582	AB1-173AC OP	1.8023	80/20	1.8023
923831	AB2-022 C	-0.8983	Adder	-1.06
923911	AB2-031 C O1	1.7889	80/20	1.7889
923991	AB2-040 C O1	5.8740	80/20	5.8740
924151	AB2-059 C OP	1.7471	80/20	1.7471

924501	AB2-099 C (Suspended)	1.0074	80/20	1.0074
924511	AB2-100 C	1.2658	80/20	1.2658
925121	AB2-169 C	2.0776	80/20	2.0776
925171	AB2-174 C O1	0.9219	80/20	0.9219
925591	AC1-034 C	6.5604	80/20	6.5604
925781	AC1-054 C O1	4.5595	80/20	4.5595
926071	AC1-086 C	22.4169	80/20	22.4169
926201	AC1-098 C	8.0374	80/20	8.0374
926211	AC1-099 C	2.6934	80/20	2.6934
927021	AC1-189 C	11.8954	80/20	11.8954
927141	AC1-208 C	10.1471	80/20	10.1471
932631	AC2-084 C	11.4575	80/20	11.4575
933991	AD1-023 C	28.2004	80/20	28.2004
934331	AD1-057 C O1	10.1856	80/20	10.1856
934521	AD1-076 C	113.9255	80/20	113.9255
935111	AD1-144 C	-0.7751	Adder	-0.91
936361	AD2-046 C O1	3.6817	Adder	4.33
936401	AD2-051 C O1	19.8648	80/20	19.8648
937541	AD2-215 C	-0.7831	Adder	-0.92
938171	AE1-026 C O1	69.7636	80/20	69.7636
938221	AE1-035 C	5.1550	80/20	5.1550
940491	AE2-034 C	14.9192	80/20	14.9192
940571	AE2-044 C	4.2969	80/20	4.2969
941541	AE2-151 C	2.0903	80/20	2.0903
942131	AE2-225 C	-1.0773	Adder	-1.27
942171	AE2-229 C	-1.0773	Adder	-1.27
942471	AE2-260 C O1	8.3171	80/20	8.3171
942851	AE2-304 C	-0.2716	Adder	-0.32
943171	AE2-346 C	2.4178	80/20	2.4178
943911	AF1-059	8.3370	80/20	8.3370
944141	AF1-082	2.7623	80/20	2.7623
945711	AF1-236 C O1	163.3302	80/20	163.3302
946281	AF1-292 C	0.9859	80/20	0.9859
957521	AF2-046 C	20.4051	80/20	20.4051
957531	AF2-047 C	35.4510	80/20	35.4510
957861	AF2-080 C	10.8039	80/20	10.8039
959231	AF2-214 C	9.2843	80/20	9.2843
959511	AF2-242	13.9123	80/20	13.9123
959731	AF2-264 C	3.3334	80/20	3.3334
960081	AF2-299 C	1.6616	80/20	1.6616
960331	AF2-324 C O1	7.6094	80/20	7.6094
960351	AF2-326 C	2.4520	80/20	2.4520
960831	AF2-374 C	2.1136	80/20	2.1136
WEC	WEC	0.3333	Confirmed LTF	0.3333
LGEE	LGEE	0.6224	Confirmed LTF	0.6224
CPL	CPL	3.7739	Confirmed LTF	3.7739
CBM-W2	CBM-W2	12.8665	Confirmed LTF	12.8665
NY	NY	0.2909	Confirmed LTF	0.2909
CBM-W1	CBM-W1	12.5600	Confirmed LTF	12.5600
TVA	TVA	2.6600	Confirmed LTF	2.6600
CBM-S2	CBM-S2	22.9639	Confirmed LTF	22.9639
CBM-S1	CBM-S1	14.9015	Confirmed LTF	14.9015
MADISON	MADISON	0.7056	Confirmed LTF	0.7056

MEC	MEC	1.9799	Confirmed LTF	1.9799
AA2-074	AA2-074	2.5717	LTF	2.5717

11.6.27 Index 27

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
97890288	314579	6HORNRTN	DVP	934330	AD1-057 TAP	DVP	1	314435 6SAPONY 230 940480 AE2-033 TAP 230 1	single	441.8	103.18	105.77	DC	11.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.1083	80/20	0.1083
314582	3KELFORD	0.2155	80/20	0.2155
314589	3MURPHYS	0.0653	80/20	0.0653
314704	3LAWRENC	0.3896	80/20	0.3896
315115	1S HAMPT1	0.8777	80/20	0.8777
315126	1ROARAP2	1.7360	80/20	1.7360
315128	1ROARAP4	1.6566	80/20	1.6566
315136	1ROSEMG1	5.4275	80/20	5.4275
315137	1ROSEMS1	3.3656	80/20	3.3656
315138	1ROSEMG2	2.5437	80/20	2.5437
315139	1GASTONA	6.7404	80/20	6.7404
315141	1GASTONB	6.7404	80/20	6.7404
315158	1KERR 1	0.2211	80/20	0.2211
315159	1KERR 2	0.6191	80/20	0.6191
315160	1KERR 3	0.6191	80/20	0.6191
315161	1KERR 4	0.6191	80/20	0.6191
315162	1KERR 5	0.6191	80/20	0.6191
315163	1KERR 6	0.6191	80/20	0.6191
315164	1KERR 7	0.6191	80/20	0.6191
315602	1HOLLOMANSOL	0.8693	80/20	0.8693
315606	3AA2-053SOLA	1.6478	80/20	1.6478
315607	3AA1-063SOLA	1.4950	80/20	1.4950
315608	3AA2-088SOLA	0.7892	80/20	0.7892
920671	AA2-174 C OP	0.0755	80/20	0.0755
922922	AB1-081 C OP	-7.0101	Adder	-8.25
923262	AB1-132 C OP (Suspended)	29.8402	80/20	29.8402
923572	AB1-173 C OP	3.1436	80/20	3.1436
923582	AB1-173AC OP	3.1436	80/20	3.1436
923801	AB2-015 C OP	4.4440	80/20	4.4440
923911	AB2-031 C O1	3.1203	80/20	3.1203
923991	AB2-040 C O1	10.2458	80/20	10.2458
924021	AB2-043 C O1	0.2522	80/20	0.2522
924161	AB2-060 C OP	0.7165	80/20	0.7165
924301	AB2-077 C O1 (Suspended)	0.9126	80/20	0.9126
924311	AB2-078 C O1 (Suspended)	0.9126	80/20	0.9126

924321	AB2-079 C O1 (Suspended)	0.9126	80/20	0.9126
924501	AB2-099 C (Suspended)	0.3668	80/20	0.3668
924511	AB2-100 C	3.7454	80/20	3.7454
925171	AB2-174 C O1	1.7382	80/20	1.7382
925611	AC1-036 C	0.3509	80/20	0.3509
925781	AC1-054 C O1	5.0828	80/20	5.0828
926071	AC1-086 C	43.9432	80/20	43.9432
933991	AD1-023 C	5.0932	80/20	5.0932
934521	AD1-076 C	17.7924	80/20	17.7924
936261	AD2-033 C	5.0216	80/20	5.0216
936361	AD2-046 C O1	4.6131	80/20	4.6131
936401	AD2-051 C O1	5.2924	80/20	5.2924
936481	AD2-063 C O1	6.4152	80/20	6.4152
938171	AE1-026 C O1	13.5494	80/20	13.5494
938221	AE1-035 C	1.2599	80/20	1.2599
938771	AE1-103 C O1	1.7157	80/20	1.7157
939181	AE1-148 C O1	4.5263	80/20	4.5263
940241	AE2-006	0.1785	80/20	0.1785
940481	AE2-033 C	28.4978	80/20	28.4978
940661	AE2-053 O1	1.6764	80/20	1.6764
941541	AE2-151 C	0.6548	80/20	0.6548
942451	AE2-258	1.0909	80/20	1.0909
942471	AE2-260 C O1	26.4797	80/20	26.4797
943171	AE2-346 C	0.8804	80/20	0.8804
943911	AF1-059	15.8460	80/20	15.8460
946011	AF1-266	23.8549	80/20	23.8549
946281	AF1-292 C	2.3013	80/20	2.3013
957521	AF2-046 C	11.4630	80/20	11.4630
959311	AF2-222 C	5.9630	80/20	5.9630
959731	AF2-264 C	1.4676	80/20	1.4676
960081	AF2-299 C	3.8786	80/20	3.8786
960811	AF2-372 C	0.5765	80/20	0.5765
960831	AF2-374 C	0.9720	80/20	0.9720
961091	AF2-400 C	0.2400	80/20	0.2400
NEWTON	NEWTON	0.8360	Confirmed LTF	0.8360
FARMERCITY	FARMERCITY	0.0479	Confirmed LTF	0.0479
G-007A	G-007A	0.2973	Confirmed LTF	0.2973
VFT	VFT	0.7869	Confirmed LTF	0.7869
CALDERWOOD	CALDERWOOD	0.6550	Confirmed LTF	0.6550
PRAIRIE	PRAIRIE	2.2524	Confirmed LTF	2.2524
CHEOAH	CHEOAH	0.6717	Confirmed LTF	0.6717
EDWARDS	EDWARDS	0.2534	Confirmed LTF	0.2534
TILTON	TILTON	0.4479	Confirmed LTF	0.4479
GIBSON	GIBSON	0.4040	Confirmed LTF	0.4040
BLUEG	BLUEG	1.2464	Confirmed LTF	1.2464
TRIMBLE	TRIMBLE	0.3957	Confirmed LTF	0.3957
CATAWBA	CATAWBA	0.7028	Confirmed LTF	0.7028

11.6.28 Index 28

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97889968	314583	6LAKEVEW	DVP	924510	AB2-100 TAP	DVP	1	DVP_P1-2: LN 246	single	375.06	132.38	136.23	DC	14.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314574	6EVERETS	0.2845	80/20	0.2845
314582	3KELFORD	0.4976	80/20	0.4976
314589	3MURPHYS	0.0771	80/20	0.0771
314623	3WITAKRS	0.2391	80/20	0.2391
315115	1S HAMPT1	0.7350	80/20	0.7350
315126	1ROARAP2	1.4379	80/20	1.4379
315128	1ROARAP4	1.3722	80/20	1.3722
315131	1EDGECEMA (Deactivation : 22/04/2019)	10.1604	80/20	10.1604
315132	1EDGECEMB (Deactivation : 22/04/2019)	10.1604	80/20	10.1604
315136	1ROSEMG1	4.5383	80/20	4.5383
315137	1ROSEMS1	2.8142	80/20	2.8142
315138	1ROSEMG2	2.1269	80/20	2.1269
315139	1GASTONA	6.9609	80/20	6.9609
315141	1GASTONB	6.9609	80/20	6.9609
315161	1KERR 4	0.3967	80/20	0.3967
315162	1KERR 5	0.3967	80/20	0.3967
315163	1KERR 6	0.3967	80/20	0.3967
315164	1KERR 7	0.3967	80/20	0.3967
315292	1DOMTR78	1.1664	80/20	1.1664
315294	1DOMTR10	8.7636	80/20	8.7636
315601	1CONETOE2SOL	1.6052	80/20	1.6052
315602	1HOLLOMANSOL	1.8182	80/20	1.8182
315606	3AA2-053SOLA	1.5271	80/20	1.5271
315607	3AA1-063SOLA	1.2895	80/20	1.2895
315608	3AA2-088SOLA	0.7371	80/20	0.7371
315612	3AA2-057SOLA	1.2816	80/20	1.2816
315614	AA2-178 C	0.9769	80/20	0.9769
920591	AA2-165 C	0.1520	80/20	0.1520
920671	AA2-174 C OP	0.0699	80/20	0.0699
922922	AB1-081 C OP	9.2949	80/20	9.2949
923262	AB1-132 C OP (Suspended)	30.8162	80/20	30.8162
923801	AB2-015 C OP	3.5565	80/20	3.5565
924151	AB2-059 C OP	1.8896	80/20	1.8896
924501	AB2-099 C (Suspended)	0.6038	80/20	0.6038
925121	AB2-169 C	0.9567	80/20	0.9567
925591	AC1-034 C	7.0956	80/20	7.0956
925781	AC1-054 C O1	3.6761	80/20	3.6761
926071	AC1-086 C	45.3806	80/20	45.3806
926201	AC1-098 C	6.4364	80/20	6.4364

926211	AC1-099 C	2.1569	80/20	2.1569
927021	AC1-189 C	8.7154	80/20	8.7154
927141	AC1-208 C	9.2895	80/20	9.2895
932631	AC2-084 C	9.1752	80/20	9.1752
933991	AD1-023 C	11.3908	80/20	11.3908
934331	AD1-057 C O1	15.9055	80/20	15.9055
934521	AD1-076 C	41.3318	80/20	41.3318
936401	AD2-051 C O1	10.5361	80/20	10.5361
938171	AE1-026 C O1	29.7744	80/20	29.7744
938221	AE1-035 C	2.6351	80/20	2.6351
938771	AE1-103 C O1	1.2961	80/20	1.2961
940491	AE2-034 C	4.2475	80/20	4.2475
940571	AE2-044 C	4.6474	80/20	4.6474
941541	AE2-151 C	1.1943	80/20	1.1943
943171	AE2-346 C	1.4492	80/20	1.4492
944141	AF1-082	2.9876	80/20	2.9876
945711	AF1-236 C O1	46.4996	80/20	46.4996
957521	AF2-046 C	14.4520	80/20	14.4520
957531	AF2-047 C	10.0928	80/20	10.0928
957861	AF2-080 C	7.9157	80/20	7.9157
959231	AF2-214 C	10.0418	80/20	10.0418
959511	AF2-242	7.0877	80/20	7.0877
959731	AF2-264 C	2.1377	80/20	2.1377
960331	AF2-324 C O1	8.5488	80/20	8.5488
960351	AF2-326 C	2.6203	80/20	2.6203
960831	AF2-374 C	1.3590	80/20	1.3590
961091	AF2-400 C	0.1921	80/20	0.1921
WEC	WEC	0.2703	Confirmed LTF	0.2703
LGEE	LGEE	0.5055	Confirmed LTF	0.5055
CPL	CPL	3.1706	Confirmed LTF	3.1706
CBM-W2	CBM-W2	10.6470	Confirmed LTF	10.6470
NY	NY	0.2754	Confirmed LTF	0.2754
CBM-W1	CBM-W1	10.1581	Confirmed LTF	10.1581
TVA	TVA	2.2176	Confirmed LTF	2.2176
CBM-S2	CBM-S2	19.4208	Confirmed LTF	19.4208
CBM-S1	CBM-S1	12.3881	Confirmed LTF	12.3881
MADISON	MADISON	0.6088	Confirmed LTF	0.6088
MEC	MEC	1.6208	Confirmed LTF	1.6208
AA2-074	AA2-074	2.1604	LTF	2.1604

11.6.29 Index 29

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
97707945	314638	6ELIZ CT	DVP	314647	6SHAWBRO	DVP	1	DVP_P4-2: 246T247	breaker	699.0	229.4	231.83	DC	16.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314574	6EVERETS	0.2925	50/50	0.2925
314582	3KELFORD	0.4234	50/50	0.4234
314589	3MURPHYS	0.0577	50/50	0.0577
314638	6ELIZ CT	1.0159	50/50	1.0159
314639	6TANGLEW	1.7856	50/50	1.7856
315292	1DOMTR78	2.8225	50/50	2.8225
315294	1DOMTR10	21.2064	50/50	21.2064
315601	1CONETOE2SOL	1.2226	50/50	1.2226
315602	1HOLLOMANSOL	1.8876	50/50	1.8876
315605	6W1-029WIND	3.1395	50/50	3.1395
315606	3AA2-053SOLA	0.9449	50/50	0.9449
315611	6Z1-036WIND	23.6387	50/50	23.6387
315614	AA2-178 C	4.4565	50/50	4.4565
900672	V4-068 E	0.1834	50/50	0.1834
901082	W1-029 E	122.0103	50/50	122.0103
913392	Y1-086 E	9.6096	50/50	9.6096
916042	Z1-036 E (Suspended)	158.3791	50/50	158.3791
917122	Z2-027 E	4.4364	50/50	4.4364
917332	Z2-043 E	1.0673	50/50	1.0673
917512	Z2-088 E OP1	3.0377	50/50	3.0377
918512	AA1-065 E OP	4.8998	50/50	4.8998
918532	AA1-067 E	0.7268	50/50	0.7268
919692	AA2-053 E OP	2.3521	50/50	2.3521
919702	AA2-057 E OP	1.7580	Adder	2.07
920592	AA2-165 E	0.2416	Adder	0.28
920671	AA2-174 C OP	0.0433	50/50	0.0433
920672	AA2-174 E OP	0.2718	50/50	0.2718
920692	AA2-178 E	11.0724	50/50	11.0724
923262	AB1-132 C OP (Suspended)	7.1000	Adder	8.35
923263	AB1-132 E OP (Suspended)	3.0429	Adder	3.58
923831	AB2-022 C	10.0746	50/50	10.0746
923832	AB2-022 E	5.4248	50/50	5.4248
924501	AB2-099 C (Suspended)	0.5431	50/50	0.5431
924502	AB2-099 E (Suspended)	0.2328	50/50	0.2328
925121	AB2-169 C	1.8456	50/50	1.8456
925122	AB2-169 E	9.6022	50/50	9.6022
926071	AC1-086 C	10.4556	Adder	12.3
926072	AC1-086 E	4.7587	Adder	5.6
926201	AC1-098 C	4.4387	50/50	4.4387
926202	AC1-098 E	2.6443	50/50	2.6443

926211	AC1-099 C	1.4874	50/50	1.4874
926212	AC1-099 E	0.8736	50/50	0.8736
927021	AC1-189 C	7.3671	50/50	7.3671
927022	AC1-189 E	3.6697	50/50	3.6697
927141	AC1-208 C	5.6746	50/50	5.6746
927142	AC1-208 E	2.5198	50/50	2.5198
932631	AC2-084 C	6.3275	50/50	6.3275
932632	AC2-084 E	3.1165	50/50	3.1165
933991	AD1-023 C	25.6993	50/50	25.6993
933992	AD1-023 E	13.9907	50/50	13.9907
934521	AD1-076 C	120.4421	50/50	120.4421
934522	AD1-076 E	61.3289	50/50	61.3289
936401	AD2-051 C O1	10.5471	50/50	10.5471
936402	AD2-051 E O1	4.5288	50/50	4.5288
938171	AE1-026 C O1	57.9119	50/50	57.9119
938172	AE1-026 E O1	15.2785	50/50	15.2785
938221	AE1-035 C	2.7357	50/50	2.7357
938222	AE1-035 E	1.3475	50/50	1.3475
940491	AE2-034 C	19.3767	50/50	19.3767
940492	AE2-034 E	8.3043	50/50	8.3043
941501	AE2-147 C	60.6681	50/50	60.6681
941502	AE2-147 E	40.4454	50/50	40.4454
941541	AE2-151 C	1.1190	50/50	1.1190
941542	AE2-151 E	0.6025	50/50	0.6025
942851	AE2-304 C	2.3247	50/50	2.3247
942852	AE2-304 E	0.9041	50/50	0.9041
943171	AE2-346 C	1.3035	50/50	1.3035
943172	AE2-346 E	0.5586	50/50	0.5586
944871	AF1-152 C	20.2227	50/50	20.2227
944872	AF1-152 E	13.4818	50/50	13.4818
945711	AF1-236 C O1	212.1287	50/50	212.1287
945712	AF1-236 E O1	346.1048	50/50	346.1048
957521	AF2-046 C	11.3053	50/50	11.3053
957522	AF2-046 E	5.6867	50/50	5.6867
957531	AF2-047 C	46.0427	50/50	46.0427
957532	AF2-047 E	23.1598	50/50	23.1598
957861	AF2-080 C	6.6911	50/50	6.6911
957862	AF2-080 E	2.9661	50/50	2.9661
959511	AF2-242	11.1792	50/50	11.1792
959731	AF2-264 C	1.8162	50/50	1.8162
959732	AF2-264 E	0.8946	50/50	0.8946
960831	AF2-374 C	1.1373	50/50	1.1373
960832	AF2-374 E	1.8555	50/50	1.8555
WEC	WEC	0.1931	Confirmed LTF	0.1931
LGEE	LGEE	0.3611	Confirmed LTF	0.3611
CPL	CPL	2.2670	Confirmed LTF	2.2670
CBM-W2	CBM-W2	7.5512	Confirmed LTF	7.5512
NY	NY	0.1864	Confirmed LTF	0.1864
CBM-W1	CBM-W1	7.2683	Confirmed LTF	7.2683
TVA	TVA	1.5680	Confirmed LTF	1.5680
O-066	O-066	2.7350	Confirmed LTF	2.7350
CBM-S2	CBM-S2	13.7102	Confirmed LTF	13.7102
CBM-S1	CBM-S1	8.7671	Confirmed LTF	8.7671

G-007	G-007	0.4274	Confirmed LTF	0.4274
MADISON	MADISON	0.4234	Confirmed LTF	0.4234
MEC	MEC	1.1536	Confirmed LTF	1.1536
AA2-074	AA2-074	1.5448	LTF	1.5448

11.6.30 Index 30

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
97708064	314639	6TANGLEW	DVP	313851	6ECITYDP2	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	139.59	141.0	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314574	6EVERETS	0.2926	50/50	0.2926
314582	3KELFORD	0.4235	50/50	0.4235
314589	3MURPHYS	0.0577	50/50	0.0577
314639	6TANGLEW	1.7857	50/50	1.7857
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.5435	Adder	5.35
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.5435	Adder	5.35
315292	1DOMTR78	2.8229	50/50	2.8229
315294	1DOMTR10	21.2090	50/50	21.2090
315601	1CONETOE2SOL	1.2230	50/50	1.2230
315602	1HOLLOMANSOL	1.8880	50/50	1.8880
315605	6W1-029WIND	3.1396	50/50	3.1396
315606	3AA2-053SOLA	0.9453	50/50	0.9453
315611	6Z1-036WIND	23.6402	50/50	23.6402
315614	AA2-178 C	4.4569	50/50	4.4569
900672	V4-068 E	0.1834	50/50	0.1834
901082	W1-029 E	122.0175	50/50	122.0175
916042	Z1-036 E (Suspended)	158.3896	50/50	158.3896
917122	Z2-027 E	4.4366	50/50	4.4366
917332	Z2-043 E	1.0676	50/50	1.0676
917342	Z2-044 E	0.2871	Adder	0.34
917512	Z2-088 E OP1	3.0386	50/50	3.0386
918512	AA1-065 E OP	4.9008	50/50	4.9008
918532	AA1-067 E	0.7270	50/50	0.7270
919692	AA2-053 E OP	2.3531	50/50	2.3531
919702	AA2-057 E OP	1.7587	Adder	2.07
920592	AA2-165 E	0.2417	Adder	0.28
920671	AA2-174 C OP	0.0433	50/50	0.0433
920672	AA2-174 E OP	0.2719	50/50	0.2719
920692	AA2-178 E	11.0734	50/50	11.0734
922922	AB1-081 C OP	4.2759	Adder	5.03
922923	AB1-081 E OP	1.8325	Adder	2.16
923262	AB1-132 C OP (Suspended)	7.1029	Adder	8.36
923263	AB1-132 E OP (Suspended)	3.0441	Adder	3.58
923831	AB2-022 C	-2.4861	Adder	-2.92
924152	AB2-059 E OP	2.5961	Adder	3.05
924501	AB2-099 C (Suspended)	0.5433	50/50	0.5433
924502	AB2-099 E (Suspended)	0.2328	50/50	0.2328
925121	AB2-169 C	1.8459	50/50	1.8459

925122	AB2-169 E	9.6037	50/50	9.6037
925591	AC1-034 C	3.2642	Adder	3.84
925592	AC1-034 E	2.4625	Adder	2.9
926071	AC1-086 C	10.4598	Adder	12.31
926072	AC1-086 E	4.7606	Adder	5.6
926201	AC1-098 C	4.4402	50/50	4.4402
926202	AC1-098 E	2.6452	50/50	2.6452
926211	AC1-099 C	1.4879	50/50	1.4879
926212	AC1-099 E	0.8739	50/50	0.8739
927021	AC1-189 C	7.3692	50/50	7.3692
927022	AC1-189 E	3.6708	50/50	3.6708
927141	AC1-208 C	5.6768	50/50	5.6768
927142	AC1-208 E	2.5208	50/50	2.5208
932631	AC2-084 C	6.3296	50/50	6.3296
932632	AC2-084 E	3.1176	50/50	3.1176
933991	AD1-023 C	25.7024	50/50	25.7024
933992	AD1-023 E	13.9924	50/50	13.9924
934331	AD1-057 C O1	4.9380	Adder	5.81
934332	AD1-057 E O1	2.6341	Adder	3.1
934521	AD1-076 C	120.4549	50/50	120.4549
934522	AD1-076 E	61.3355	50/50	61.3355
936401	AD2-051 C O1	10.5492	50/50	10.5492
936402	AD2-051 E O1	4.5297	50/50	4.5297
938171	AE1-026 C O1	57.9195	50/50	57.9195
938172	AE1-026 E O1	15.2805	50/50	15.2805
938221	AE1-035 C	2.7363	50/50	2.7363
938222	AE1-035 E	1.3477	50/50	1.3477
940491	AE2-034 C	19.3784	50/50	19.3784
940492	AE2-034 E	8.3050	50/50	8.3050
940571	AE2-044 C	2.1380	Adder	2.52
940572	AE2-044 E	0.9163	Adder	1.08
941501	AE2-147 C	60.6717	50/50	60.6717
941502	AE2-147 E	40.4478	50/50	40.4478
941541	AE2-151 C	1.1192	50/50	1.1192
941542	AE2-151 E	0.6026	50/50	0.6026
942851	AE2-304 C	2.3249	50/50	2.3249
942852	AE2-304 E	0.9041	50/50	0.9041
943171	AE2-346 C	1.3038	50/50	1.3038
943172	AE2-346 E	0.5588	50/50	0.5588
944141	AF1-082	1.3744	Adder	1.62
944871	AF1-152 C	20.2239	50/50	20.2239
944872	AF1-152 E	13.4826	50/50	13.4826
945711	AF1-236 C O1	212.1471	50/50	212.1471
945712	AF1-236 E O1	346.1348	50/50	346.1348
957521	AF2-046 C	11.3093	50/50	11.3093
957522	AF2-046 E	5.6887	50/50	5.6887
957531	AF2-047 C	46.0467	50/50	46.0467
957532	AF2-047 E	23.1618	50/50	23.1618
957861	AF2-080 C	6.6930	50/50	6.6930
957862	AF2-080 E	2.9670	50/50	2.9670
959231	AF2-214 C	2.4483	Adder	5.43
959232	AF2-214 E	3.6705	Adder	8.15
959511	AF2-242	11.1811	50/50	11.1811

959731	AF2-264 C	1.8168	50/50	1.8168
959732	AF2-264 E	0.8948	50/50	0.8948
960122	AF2-303 E O1	3.1139	Adder	6.91
960331	AF2-324 C O1	2.0261	Adder	4.5
960332	AF2-324 E O1	1.0878	Adder	2.41
960351	AF2-326 C	0.6454	Adder	1.43
960352	AF2-326 E	0.1614	Adder	0.36
960831	AF2-374 C	1.1376	50/50	1.1376
960832	AF2-374 E	1.8560	50/50	1.8560
WEC	WEC	0.1944	Confirmed LTF	0.1944
LGEE	LGEE	0.3634	Confirmed LTF	0.3634
CPL	CPL	2.2696	Confirmed LTF	2.2696
CBM-W2	CBM-W2	7.5839	Confirmed LTF	7.5839
NY	NY	0.1841	Confirmed LTF	0.1841
CBM-W1	CBM-W1	7.3183	Confirmed LTF	7.3183
TVA	TVA	1.5736	Confirmed LTF	1.5736
O-066	O-066	2.7082	Confirmed LTF	2.7082
CBM-S2	CBM-S2	13.7333	Confirmed LTF	13.7333
CBM-S1	CBM-S1	8.8012	Confirmed LTF	8.8012
G-007	G-007	0.4233	Confirmed LTF	0.4233
MADISON	MADISON	0.4234	Confirmed LTF	0.4234
MEC	MEC	1.1600	Confirmed LTF	1.1600
AA2-074	AA2-074	1.5467	LTF	1.5467

11.6.31 Index 31

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
97708252	314645	6SLIGO L269	DVP	314466	6FENTRES	DVP	1	DVP_P4-2: 246T247	breaker	699.0	101.98	102.51	DC	8.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314638	6ELIZ CT	0.4967	50/50	0.4967
314639	6TANGLEW	0.8729	50/50	0.8729
314643	3O INLET	1.0656	50/50	1.0656
315294	1DOMTR10	8.8062	Adder	10.36
315603	6AA1-139SOLA	4.0686	50/50	4.0686
315605	6W1-029WIND	1.5347	50/50	1.5347
315611	6Z1-036WIND	11.5545	50/50	11.5545
315614	AA2-178 C	2.1779	50/50	2.1779
901082	W1-029 E	59.6431	50/50	59.6431
913392	Y1-086 E	4.6979	50/50	4.6979
916042	Z1-036 E (Suspended)	77.4154	50/50	77.4154
917122	Z2-027 E	2.1688	50/50	2.1688
917332	Z2-043 E	0.4426	Adder	0.52
917512	Z2-088 E OP1	1.2591	Adder	1.48
918512	AA1-065 E OP	2.0333	Adder	2.39
918532	AA1-067 E	0.3014	Adder	0.35
919152	AA1-139 E	10.1088	50/50	10.1088
920692	AA2-178 E	5.4110	50/50	5.4110
923831	AB2-022 C	4.9252	50/50	4.9252
923832	AB2-022 E	2.6520	50/50	2.6520
924501	AB2-099 C (Suspended)	0.2252	Adder	0.26
924502	AB2-099 E (Suspended)	0.0965	Adder	0.11
925122	AB2-169 E	3.9865	Adder	4.69
926201	AC1-098 C	1.8393	Adder	2.16
926202	AC1-098 E	1.0958	Adder	1.29
926211	AC1-099 C	0.6164	Adder	0.73
926212	AC1-099 E	0.3620	Adder	0.43
927021	AC1-189 C	3.0543	Adder	3.59
927022	AC1-189 E	1.5214	Adder	1.79
932631	AC2-084 C	2.6220	Adder	3.08
932632	AC2-084 E	1.2914	Adder	1.52
933991	AD1-023 C	12.5555	50/50	12.5555
933992	AD1-023 E	6.8353	50/50	6.8353
934521	AD1-076 C	58.8485	50/50	58.8485
934522	AD1-076 E	29.9656	50/50	29.9656
936401	AD2-051 C O1	4.3765	Adder	5.15
936402	AD2-051 E O1	1.8792	Adder	2.21
937221	AD2-160 C O1	6.2104	50/50	6.2104
937222	AD2-160 E O1	3.2566	50/50	3.2566
938171	AE1-026 C O1	24.0460	Adder	28.29
938172	AE1-026 E O1	6.3439	Adder	7.46

938221	AE1-035 C	1.1352	Adder	1.34
938222	AE1-035 E	0.5591	Adder	0.66
938531	AE1-072 C O1	44.8847	50/50	44.8847
938532	AE1-072 E O1	23.3983	50/50	23.3983
940491	AE2-034 C	9.4693	50/50	9.4693
940492	AE2-034 E	4.0583	50/50	4.0583
941501	AE2-147 C	29.6568	50/50	29.6568
941502	AE2-147 E	19.7712	50/50	19.7712
941541	AE2-151 C	0.4642	Adder	0.55
941542	AE2-151 E	0.2499	Adder	0.29
942401	AE2-253 C	6.5322	50/50	6.5322
942402	AE2-253 E	2.9348	50/50	2.9348
942851	AE2-304 C	1.1364	50/50	1.1364
942852	AE2-304 E	0.4419	50/50	0.4419
943171	AE2-346 C	0.5406	Adder	0.64
943172	AE2-346 E	0.2317	Adder	0.27
944871	AF1-152 C	9.8856	50/50	9.8856
944872	AF1-152 E	6.5904	50/50	6.5904
945711	AF1-236 C O1	103.6665	50/50	103.6665
945712	AF1-236 E O1	169.1401	50/50	169.1401
957521	AF2-046 C	2.4827	Adder	5.51
957522	AF2-046 E	1.2488	Adder	2.77
957531	AF2-047 C	22.5009	50/50	22.5009
957532	AF2-047 E	11.3181	50/50	11.3181
957861	AF2-080 C	1.4702	Adder	3.26
957862	AF2-080 E	0.6518	Adder	1.45
957871	AF2-081 C O1	15.7248	50/50	15.7248
957872	AF2-081 E O1	6.7392	50/50	6.7392
959511	AF2-242	2.4593	Adder	5.46
959731	AF2-264 C	0.3991	Adder	0.89
959732	AF2-264 E	0.1966	Adder	0.44
960831	AF2-374 C	0.2499	Adder	0.55
960832	AF2-374 E	0.4078	Adder	0.91
WEC	WEC	0.0885	Confirmed LTF	0.0885
LGEE	LGEE	0.1660	Confirmed LTF	0.1660
CPL	CPL	1.0961	Confirmed LTF	1.0961
CBM-W2	CBM-W2	3.5381	Confirmed LTF	3.5381
NY	NY	0.1012	Confirmed LTF	0.1012
CBM-W1	CBM-W1	3.3151	Confirmed LTF	3.3151
TVA	TVA	0.7406	Confirmed LTF	0.7406
O-066	O-066	1.4650	Confirmed LTF	1.4650
CBM-S2	CBM-S2	6.5950	Confirmed LTF	6.5950
CBM-S1	CBM-S1	4.1322	Confirmed LTF	4.1322
G-007	G-007	0.2288	Confirmed LTF	0.2288
MADISON	MADISON	0.2076	Confirmed LTF	0.2076
MEC	MEC	0.5355	Confirmed LTF	0.5355

11.6.32 Index 32

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
97708059	314651	6WINFALL	DVP	314639	6TANGLEW	DVP	1	DVP_P4-2: 246T247	breaker	1163.0	147.0	148.46	DC	17.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314574	6EVERETS	0.2927	50/50	0.2927
314582	3KELFORD	0.4237	50/50	0.4237
314589	3MURPHYS	0.0578	50/50	0.0578
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.5469	Adder	5.35
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.5469	Adder	5.35
315292	1DOMTR78	2.8235	50/50	2.8235
315294	1DOMTR10	21.2142	50/50	21.2142
315601	1CONETOE2SOL	1.2237	50/50	1.2237
315602	1HOLLOMANSOL	1.8886	50/50	1.8886
315605	6W1-029WIND	3.1400	50/50	3.1400
315606	3AA2-053SOLA	0.9459	50/50	0.9459
315611	6Z1-036WIND	23.6430	50/50	23.6430
315614	AA2-178 C	4.4575	50/50	4.4575
900672	V4-068 E	0.1836	50/50	0.1836
901082	W1-029 E	122.0302	50/50	122.0302
916042	Z1-036 E (Suspended)	158.4079	50/50	158.4079
917332	Z2-043 E	1.0681	50/50	1.0681
917342	Z2-044 E	0.2873	Adder	0.34
917512	Z2-088 E OP1	3.0403	50/50	3.0403
918492	AA1-063AE OP	1.6965	Adder	2.0
918512	AA1-065 E OP	4.9025	50/50	4.9025
918532	AA1-067 E	0.7273	50/50	0.7273
919692	AA2-053 E OP	2.3546	50/50	2.3546
919702	AA2-057 E OP	1.7600	Adder	2.07
920592	AA2-165 E	0.2419	Adder	0.28
920671	AA2-174 C OP	0.0433	50/50	0.0433
920672	AA2-174 E OP	0.2721	50/50	0.2721
920692	AA2-178 E	11.0750	50/50	11.0750
922922	AB1-081 C OP	4.2792	Adder	5.03
922923	AB1-081 E OP	1.8340	Adder	2.16
923262	AB1-132 C OP (Suspended)	7.1079	Adder	8.36
923263	AB1-132 E OP (Suspended)	3.0462	Adder	3.58
923831	AB2-022 C	-2.4854	Adder	-2.92
924152	AB2-059 E OP	2.5981	Adder	3.06
924501	AB2-099 C (Suspended)	0.5435	50/50	0.5435
924502	AB2-099 E (Suspended)	0.2329	50/50	0.2329
925121	AB2-169 C	1.8464	50/50	1.8464
925122	AB2-169 E	9.6061	50/50	9.6061

925591	AC1-034 C	3.2667	Adder	3.84
925592	AC1-034 E	2.4644	Adder	2.9
926071	AC1-086 C	10.4672	Adder	12.31
926072	AC1-086 E	4.7640	Adder	5.6
926201	AC1-098 C	4.4428	50/50	4.4428
926202	AC1-098 E	2.6468	50/50	2.6468
926211	AC1-099 C	1.4888	50/50	1.4888
926212	AC1-099 E	0.8744	50/50	0.8744
927021	AC1-189 C	7.3729	50/50	7.3729
927022	AC1-189 E	3.6727	50/50	3.6727
927141	AC1-208 C	5.6807	50/50	5.6807
927142	AC1-208 E	2.5225	50/50	2.5225
932631	AC2-084 C	6.3334	50/50	6.3334
932632	AC2-084 E	3.1194	50/50	3.1194
933991	AD1-023 C	25.7086	50/50	25.7086
933992	AD1-023 E	13.9958	50/50	13.9958
934331	AD1-057 C O1	4.9422	Adder	5.81
934332	AD1-057 E O1	2.6364	Adder	3.1
934521	AD1-076 C	120.4774	50/50	120.4774
934522	AD1-076 E	61.3469	50/50	61.3469
936401	AD2-051 C O1	10.5528	50/50	10.5528
936402	AD2-051 E O1	4.5313	50/50	4.5313
938171	AE1-026 C O1	57.9347	50/50	57.9347
938172	AE1-026 E O1	15.2845	50/50	15.2845
938221	AE1-035 C	2.7372	50/50	2.7372
938222	AE1-035 E	1.3482	50/50	1.3482
940491	AE2-034 C	19.3813	50/50	19.3813
940492	AE2-034 E	8.3063	50/50	8.3063
940571	AE2-044 C	2.1396	Adder	2.52
940572	AE2-044 E	0.9170	Adder	1.08
941501	AE2-147 C	60.6780	50/50	60.6780
941502	AE2-147 E	40.4520	50/50	40.4520
941541	AE2-151 C	1.1197	50/50	1.1197
941542	AE2-151 E	0.6029	50/50	0.6029
942851	AE2-304 C	2.3251	50/50	2.3251
942852	AE2-304 E	0.9042	50/50	0.9042
943171	AE2-346 C	1.3044	50/50	1.3044
943172	AE2-346 E	0.5590	50/50	0.5590
944141	AF1-082	1.3755	Adder	1.62
944871	AF1-152 C	20.2260	50/50	20.2260
944872	AF1-152 E	13.4840	50/50	13.4840
945711	AF1-236 C O1	212.1793	50/50	212.1793
945712	AF1-236 E O1	346.1873	50/50	346.1873
957521	AF2-046 C	11.3163	50/50	11.3163
957522	AF2-046 E	5.6922	50/50	5.6922
957531	AF2-047 C	46.0537	50/50	46.0537
957532	AF2-047 E	23.1653	50/50	23.1653
957861	AF2-080 C	6.6964	50/50	6.6964
957862	AF2-080 E	2.9685	50/50	2.9685
959231	AF2-214 C	2.4502	Adder	5.44
959232	AF2-214 E	3.6733	Adder	8.15
959511	AF2-242	11.1845	50/50	11.1845
959731	AF2-264 C	1.8178	50/50	1.8178

959732	AF2-264 E	0.8954	50/50	0.8954
960122	AF2-303 E O1	3.1162	Adder	6.92
960331	AF2-324 C O1	2.0276	Adder	4.5
960332	AF2-324 E O1	1.0886	Adder	2.42
960351	AF2-326 C	0.6459	Adder	1.43
960352	AF2-326 E	0.1615	Adder	0.36
960831	AF2-374 C	1.1381	50/50	1.1381
960832	AF2-374 E	1.8569	50/50	1.8569
WEC	WEC	0.1969	Confirmed LTF	0.1969
LGEE	LGEE	0.3680	Confirmed LTF	0.3680
CPL	CPL	2.2749	Confirmed LTF	2.2749
CBM-W2	CBM-W2	7.6495	Confirmed LTF	7.6495
NY	NY	0.1797	Confirmed LTF	0.1797
CBM-W1	CBM-W1	7.4184	Confirmed LTF	7.4184
TVA	TVA	1.5848	Confirmed LTF	1.5848
O-066	O-066	2.6544	Confirmed LTF	2.6544
CBM-S2	CBM-S2	13.7795	Confirmed LTF	13.7795
CBM-S1	CBM-S1	8.8693	Confirmed LTF	8.8693
G-007	G-007	0.4150	Confirmed LTF	0.4150
MADISON	MADISON	0.4234	Confirmed LTF	0.4234
MEC	MEC	1.1727	Confirmed LTF	1.1727
AA2-074	AA2-074	1.5502	LTF	1.5502

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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
97889833	314662	6S HERTFORD	DVP	314651	6WINFALL	DVP	1	DVP_P1-2: LN 246	single	733.2	121.67	123.43	DC	12.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0325	80/20	0.0325
314574	6EVERETS	0.3446	80/20	0.3446
314582	3KELFORD	0.4969	80/20	0.4969
314589	3MURPHYS	0.0660	80/20	0.0660
314623	3WITAKRS	0.1596	80/20	0.1596
314704	3LAWRENC	0.1176	80/20	0.1176
315126	1ROARAP2	0.9082	80/20	0.9082
315128	1ROARAP4	0.8667	80/20	0.8667
315131	1EDGECEMA (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315132	1EDGECEMB (Deactivation : 22/04/2019)	6.2872	80/20	6.2872
315136	1ROSEMG1	1.5269	80/20	1.5269
315137	1ROSEMS1	0.9468	80/20	0.9468
315138	1ROSEMG2	0.7156	80/20	0.7156
315139	1GASTONA	2.2149	80/20	2.2149
315141	1GASTONB	2.2149	80/20	2.2149
315161	1KERR 4	0.3901	80/20	0.3901
315162	1KERR 5	0.3901	80/20	0.3901
315163	1KERR 6	0.3901	80/20	0.3901
315164	1KERR 7	0.3901	80/20	0.3901
315292	1DOMTR78	3.3298	80/20	3.3298
315294	1DOMTR10	25.0180	80/20	25.0180
315601	1CONETOE2SOL	1.4398	80/20	1.4398
315602	1HOLLOMANSOL	2.2223	80/20	2.2223
315606	3AA2-053SOLA	1.1036	80/20	1.1036
315607	3AA1-063SOLA	0.8357	80/20	0.8357
315608	3AA2-088SOLA	0.4899	80/20	0.4899
315611	6Z1-036WIND	27.9154	80/20	27.9154
315612	3AA2-057SOLA	0.8869	80/20	0.8869
315614	AA2-178 C	5.2604	80/20	5.2604
920591	AA2-165 C	0.1052	80/20	0.1052
920671	AA2-174 C OP	0.0505	80/20	0.0505
922922	AB1-081 C OP	5.9136	80/20	5.9136
923262	AB1-132 C OP (Suspended)	9.8053	80/20	9.8053
923572	AB1-173 C OP	1.1594	80/20	1.1594
923582	AB1-173AC OP	1.1594	80/20	1.1594
923831	AB2-022 C	-1.6400	Adder	-1.93
923911	AB2-031 C O1	1.1508	80/20	1.1508
923991	AB2-040 C O1	3.7787	80/20	3.7787
924151	AB2-059 C OP	1.2022	80/20	1.2022

924501	AB2-099 C (Suspended)	0.6347	80/20	0.6347
924511	AB2-100 C	0.8106	80/20	0.8106
925121	AB2-169 C	2.1767	80/20	2.1767
925171	AB2-174 C O1	0.5928	80/20	0.5928
925591	AC1-034 C	4.5144	80/20	4.5144
925781	AC1-054 C O1	2.9637	80/20	2.9637
926071	AC1-086 C	14.4395	80/20	14.4395
926201	AC1-098 C	5.2053	80/20	5.2053
926211	AC1-099 C	1.7443	80/20	1.7443
927021	AC1-189 C	8.6764	80/20	8.6764
927141	AC1-208 C	6.6480	80/20	6.6480
932631	AC2-084 C	7.4204	80/20	7.4204
933991	AD1-023 C	30.3123	80/20	30.3123
934331	AD1-057 C O1	6.8258	80/20	6.8258
934521	AD1-076 C	142.1118	80/20	142.1118
936401	AD2-051 C O1	12.4167	80/20	12.4167
938171	AE1-026 C O1	68.2899	80/20	68.2899
938221	AE1-035 C	3.2208	80/20	3.2208
940491	AE2-034 C	22.8724	80/20	22.8724
940571	AE2-044 C	2.9568	80/20	2.9568
941541	AE2-151 C	1.3133	80/20	1.3133
942471	AE2-260 C O1	5.3193	80/20	5.3193
942851	AE2-304 C	2.7456	80/20	2.7456
943171	AE2-346 C	1.5233	80/20	1.5233
943911	AF1-059	5.3880	80/20	5.3880
944141	AF1-082	1.9008	80/20	1.9008
945711	AF1-236 C O1	250.3979	80/20	250.3979
946281	AF1-292 C	0.6331	80/20	0.6331
957521	AF2-046 C	12.9920	80/20	12.9920
957531	AF2-047 C	54.3491	80/20	54.3491
957861	AF2-080 C	7.8803	80/20	7.8803
959231	AF2-214 C	6.3888	80/20	6.3888
959511	AF2-242	13.1813	80/20	13.1813
959731	AF2-264 C	2.1088	80/20	2.1088
960081	AF2-299 C	1.0671	80/20	1.0671
960331	AF2-324 C O1	5.2899	80/20	5.2899
960351	AF2-326 C	1.6838	80/20	1.6838
960831	AF2-374 C	1.3333	80/20	1.3333
WEC	WEC	0.2337	Confirmed LTF	0.2337
LGEE	LGEE	0.4364	Confirmed LTF	0.4364
CPL	CPL	2.6804	Confirmed LTF	2.6804
CBM-W2	CBM-W2	9.0499	Confirmed LTF	9.0499
NY	NY	0.2068	Confirmed LTF	0.2068
CBM-W1	CBM-W1	8.8070	Confirmed LTF	8.8070
TVA	TVA	1.8732	Confirmed LTF	1.8732
CBM-S2	CBM-S2	16.2476	Confirmed LTF	16.2476
CBM-S1	CBM-S1	10.4966	Confirmed LTF	10.4966
MADISON	MADISON	0.5000	Confirmed LTF	0.5000
MEC	MEC	1.3920	Confirmed LTF	1.3920
AA2-074	AA2-074	1.8270	LTF	1.8270

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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
96828178	314914	8MDLTHAN	DVP	314918	8NO ANNA	DVP	1	DVP_P1-2: LN 574	single	2442.12	149.88	149.95	DC	25.47

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314295	6BIRDNECK	0.0726	80/20	0.0726
314491	3PENDLTN	0.5418	80/20	0.5418
314507	3THOMPSN	0.5451	80/20	0.5451
314947	8GREENSVILLE	87.0542	80/20	87.0542
315060	1CHESTF5 (Deactivation : 31/05/2023)	69.3084	Adder	81.54
315065	1CHESTF6 (Deactivation : 31/05/2023)	146.9609	Adder	172.9
315074	1HOPCGN1 (Deactivation : 25/06/2019)	9.9733	Adder	11.73
315075	1HOPCGN2 (Deactivation : 25/06/2019)	9.8441	Adder	11.58
315083	1SPRUNCA (Deactivation : 12/01/2021)	13.2114	Adder	15.54
315084	1SPRUNCB (Deactivation : 12/01/2021)	13.2114	Adder	15.54
315098	1CHESPKA	0.7204	80/20	0.7204
315099	1CHESPKB (Deactivation : 31/05/2019)	4.6698	80/20	4.6698
315102	1BRUNSWICKG1	14.2990	80/20	14.2990
315103	1BRUNSWICKG2	14.2990	80/20	14.2990
315104	1BRUNSWICKG3	14.2990	80/20	14.2990
315105	1BRUNSWICKS1	29.7062	80/20	29.7062
315108	1ELIZAR1	5.2967	80/20	5.2967
315109	1ELIZAR2	5.2047	80/20	5.2047
315110	1ELIZAR3	5.3644	80/20	5.3644
315260	1GOSPORTA	0.5752	80/20	0.5752
315261	1GOSPORTB	0.7348	80/20	0.7348
315262	1GOSPORTC	0.6236	80/20	0.6236
315294	1DOMTR10	13.9892	Adder	16.46
315603	6AA1-139SOLA	4.0434	80/20	4.0434
315611	6Z1-036WIND	8.9548	Adder	10.54
923262	AB1-132 C OP (Suspended)	17.9107	Adder	21.07
923572	AB1-173 C OP	2.8821	Adder	3.39
923582	AB1-173AC OP	2.8821	Adder	3.39
923801	AB2-015 C OP	11.2353	Adder	13.22
923831	AB2-022 C	3.0540	Adder	3.59
923911	AB2-031 C O1	2.8607	Adder	3.37
923991	AB2-040 C O1	9.3934	Adder	11.05
924501	AB2-099 C (Suspended)	0.7533	Adder	0.89

925051	AB2-160 C O1 (Suspended)	6.7647	Adder	7.96
925061	AB2-161 C O1 (Suspended)	4.4017	Adder	5.18
925331	AB2-190 C	24.7625	Adder	29.13
926071	AC1-086 C	26.3756	Adder	31.03
926201	AC1-098 C	7.7123	Adder	9.07
926211	AC1-099 C	2.5844	Adder	3.04
926661	AC1-147 C	3.5317	80/20	3.5317
926751	AC1-161 C O1	47.9555	80/20	47.9555
926781	AC1-164 C	42.3513	Adder	49.83
927021	AC1-189 C	10.6067	Adder	12.48
927141	AC1-208 C	11.2696	Adder	13.26
932041	AC2-012 C	15.9765	80/20	15.9765
932581	AC2-078 C O1	5.2283	Adder	6.15
932591	AC2-079 C O1	7.5172	Adder	8.84
932631	AC2-084 C	10.9941	Adder	12.93
933261	AC2-137 C	2.2372	Adder	2.63
933291	AC2-141 C	47.9555	80/20	47.9555
933501	AC2-165 C	12.0834	Adder	14.22
933731	AC2-196 C	2.8076	80/20	2.8076
933991	AD1-023 C	17.0211	Adder	20.02
934011	AD1-025 C	20.8815	Adder	24.57
934061	AD1-033 C	11.7902	80/20	11.7902
934331	AD1-057 C O1	12.3833	Adder	14.57
934521	AD1-076 C	70.5939	Adder	83.05
934571	AD1-082 C	10.0312	Adder	11.8
934611	AD1-087 C O1	10.1365	Adder	11.93
935111	AD1-144 C	2.2639	Adder	2.66
935161	AD1-151 C O1	19.8984	Adder	23.41
935171	AD1-152 C O1	10.0735	Adder	11.85
936041	AD2-007 C	0.9975	Adder	1.17
936051	AD2-008 C	3.6354	Adder	4.28
936151	AD2-021	0.2551	Adder	0.3
936401	AD2-051 C O1	11.3172	Adder	13.31
936661	AD2-085 C	4.5093	Adder	5.31
937221	AD2-160 C O1	9.1692	80/20	9.1692
937251	AD2-164 (Withdrawn : 06/30/2020)	5.9277	Adder	6.97
937481	AD2-202 C O1	2.6863	Adder	3.16
937541	AD2-215 C	2.2873	Adder	2.69
938171	AE1-026 C O1	41.4837	Adder	48.8
938221	AE1-035 C	2.8952	Adder	3.41
938491	AE1-068 C O1	100.6401	80/20	100.6401
938501	AE1-069 C O1	78.7983	80/20	78.7983
938531	AE1-072 C O1	27.4650	80/20	27.4650
938551	AE1-074 C	3.8930	80/20	3.8930
938561	AE1-075 C	2.7423	Adder	3.23
938631	AE1-085 C O1	11.4826	Adder	13.51
938771	AE1-103 C O1	4.7449	Adder	5.58
939191	AE1-149 C O1	13.7333	Adder	16.16
939311	AE1-162 C	2.7747	Adder	3.26
939411	AE1-173 C	149.3664	80/20	149.3664

939421	AE1-174 C (Withdrawn : 06/16/2020)	0.4234	Adder	0.5
939431	AE1-175 C	2.8157	Adder	3.31
940061	AE2-000BC O1	20.8501	Adder	24.53
940251	AE2-007 O1	271.5376	80/20	271.5376
940431	AE2-027 C O1	15.5613	Adder	18.31
940471	AE2-031 C	54.8831	80/20	54.8831
940481	AE2-033 C	20.8408	Adder	24.52
940491	AE2-034 C	9.3934	Adder	11.05
940541	AE2-040 O1	3.4936	Adder	4.11
940641	AE2-051 C O1	28.9125	80/20	28.9125
940651	AE2-052	4.5778	Adder	5.39
940891	AE2-078 C	2.9818	Adder	3.51
940901	AE2-079 C	2.9818	Adder	3.51
941031	AE2-094 C	65.8378	80/20	65.8378
941101	AE2-104 C O1	4.4295	Adder	5.21
941281	AE2-122 C O1	44.5730	80/20	44.5730
941291	AE2-123 C O1	45.8073	80/20	45.8073
941301	AE2-124 C O1	41.6587	80/20	41.6587
941501	AE2-147 C	20.9564	Adder	24.65
941541	AE2-151 C	1.3946	Adder	1.64
941591	AE2-156 O1	28.0450	80/20	28.0450
942001	AE2-212 C	2.6820	Adder	3.16
942131	AE2-225 C	2.8329	Adder	3.33
942151	AE2-227 C	2.4906	Adder	2.93
942161	AE2-228 C	2.6217	Adder	3.08
942171	AE2-229 C	2.8329	Adder	3.33
942341	AE2-247 C	1.9544	Adder	2.3
942371	AE2-250 C O1	12.0162	Adder	14.14
942401	AE2-253 C	9.6445	80/20	9.6445
942471	AE2-260 C O1	18.5888	Adder	21.87
942551	AE2-270	33.2584	Adder	39.13
942851	AE2-304 C	0.8325	Adder	0.98
942931	AE2-313 C	59.4251	80/20	59.4251
943171	AE2-346 C	1.8079	Adder	2.13
943461	AF1-017 C	1.7682	Adder	2.08
943611	AF1-032 C	2.3136	Adder	2.72
943621	AF1-033 C	2.9818	Adder	3.51
943911	AF1-059	20.1459	Adder	23.7
944011	AF1-069 C	21.5117	80/20	21.5117
944501	AF1-115 C O1	9.0810	Adder	10.68
944581	AF1-123 C O1	75.6758	80/20	75.6758
944591	AF1-124 C O1	75.6758	80/20	75.6758
944601	AF1-125 C O1	75.6758	80/20	75.6758
944631	AF1-128 O1	53.9362	Adder	63.45
944871	AF1-152 C	6.9855	Adder	8.22
945361	AF1-201 C O1	18.7020	Adder	22.0
945711	AF1-236 C O1	102.8352	Adder	120.98
945811	AF1-246 C O1	11.7046	80/20	11.7046
946011	AF1-266	17.4454	Adder	20.52
946261	AF1-291 C	2.6208	Adder	3.08
946281	AF1-292 C	1.9260	Adder	2.27
957481	AF2-042 C O1	37.5028	Adder	83.25
957491	AF2-043 C	1.5015	Adder	3.33

957521	AF2-046 C	11.4733	Adder	25.47
957531	AF2-047 C	11.8298	Adder	26.26
957631	AF2-057	5.6058	80/20	5.6058
957711	AF2-065 C	8.9897	Adder	19.95
957791	AF2-073 C (Withdrawn : 07/02/2020)	6.7042	Adder	14.88
957801	AF2-074 C (Withdrawn : 07/02/2020)	2.9797	Adder	6.61
957821	AF2-076 C O1	3.7337	Adder	8.29
957831	AF2-077 C	1.2826	Adder	2.85
957861	AF2-080 C	5.1057	Adder	11.33
957871	AF2-081 C O1	15.6274	80/20	15.6274
957911	AF2-085	6.6342	80/20	6.6342
958141	AF2-108	2.1259	Adder	4.72
958161	AF2-110 C	0.9678	Adder	2.15
958501	AF2-144 C	1.2252	Adder	2.72
959511	AF2-242	5.2814	Adder	11.72
959531	AF2-244 C	1.1291	Adder	2.51
959641	AF2-255 C	0.3300	Adder	0.73
959651	AF2-256 C	0.3474	Adder	0.77
959661	AF2-257 C	0.3473	Adder	0.77
959671	AF2-258 C	0.3554	Adder	0.79
959681	AF2-259 C	1.8222	Adder	4.04
959731	AF2-264 C	1.5342	Adder	3.41
959751	AF2-266 O1	5.9398	Adder	13.18
960081	AF2-299 C	1.7205	Adder	3.82
960101	AF2-301 C	1.7837	Adder	3.96
960361	AF2-327 C	1.9591	Adder	4.35
960831	AF2-374 C	0.8589	Adder	1.91
961091	AF2-400 C	0.3216	Adder	0.71
961111	AF2-402 C O1	0.7744	Adder	1.72
WEC	WEC	1.4084	Confirmed LTF	1.4084
LGEE	LGEE	2.7116	Confirmed LTF	2.7116
CPL	CPL	12.2708	Confirmed LTF	12.2708
CBM-W2	CBM-W2	54.2096	Confirmed LTF	54.2096
NY	NY	3.1001	Confirmed LTF	3.1001
CBM-W1	CBM-W1	52.2543	Confirmed LTF	52.2543
TVA	TVA	11.2714	Confirmed LTF	11.2714
CBM-S2	CBM-S2	86.3821	Confirmed LTF	86.3821
CBM-S1	CBM-S1	63.3718	Confirmed LTF	63.3718
MADISON	MADISON	2.7861	Confirmed LTF	2.7861
MEC	MEC	8.3693	Confirmed LTF	8.3693
AA2-074	AA2-074	8.3677	LTF	8.3677

11.6.35 Index 35

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
97889862	924510	AB2-100 TAP	DVP	314563	6CLUBHSE	DVP	1	DVP_P1-2: LN 246	single	375.06	148.77	152.61	DC	14.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314574	6EVERETS	0.2838	80/20	0.2838
314582	3KELFORD	0.4966	80/20	0.4966
314589	3MURPHYS	0.0769	80/20	0.0769
314623	3WITAKRS	0.2386	80/20	0.2386
315115	1S HAMPT1	0.7317	80/20	0.7317
315126	1ROARAP2	1.4350	80/20	1.4350
315128	1ROARAP4	1.3694	80/20	1.3694
315131	1EDGECSMA (Deactivation : 22/04/2019)	10.1401	80/20	10.1401
315132	1EDGECSMB (Deactivation : 22/04/2019)	10.1401	80/20	10.1401
315136	1ROSEMG1	4.5338	80/20	4.5338
315137	1ROSEMS1	2.8114	80/20	2.8114
315138	1ROSEMG2	2.1248	80/20	2.1248
315139	1GASTONA	6.9543	80/20	6.9543
315141	1GASTONB	6.9543	80/20	6.9543
315161	1KERR 4	0.3942	80/20	0.3942
315162	1KERR 5	0.3942	80/20	0.3942
315163	1KERR 6	0.3942	80/20	0.3942
315164	1KERR 7	0.3942	80/20	0.3942
315292	1DOMTR78	1.1634	80/20	1.1634
315294	1DOMTR10	8.7409	80/20	8.7409
315601	1CONETOE2SOL	1.6020	80/20	1.6020
315602	1HOLLOMANSOL	1.8149	80/20	1.8149
315606	3AA2-053SOLA	1.5240	80/20	1.5240
315607	3AA1-063SOLA	1.2864	80/20	1.2864
315608	3AA2-088SOLA	0.7348	80/20	0.7348
315612	3AA2-057SOLA	1.2789	80/20	1.2789
315614	AA2-178 C	0.9735	80/20	0.9735
920591	AA2-165 C	0.1516	80/20	0.1516
920671	AA2-174 C OP	0.0698	80/20	0.0698
922922	AB1-081 C OP	9.2753	80/20	9.2753
923262	AB1-132 C OP (Suspended)	30.7868	80/20	30.7868
923801	AB2-015 C OP	3.5395	80/20	3.5395
924151	AB2-059 C OP	1.8856	80/20	1.8856
924501	AB2-099 C (Suspended)	0.6026	80/20	0.6026
924511	AB2-100 C	7.3542	80/20	7.3542
925121	AB2-169 C	0.9543	80/20	0.9543
925591	AC1-034 C	7.0807	80/20	7.0807
925781	AC1-054 C O1	3.6606	80/20	3.6606
926071	AC1-086 C	45.3373	80/20	45.3373

926201	AC1-098 C	6.4236	80/20	6.4236
926211	AC1-099 C	2.1526	80/20	2.1526
927021	AC1-189 C	8.6967	80/20	8.6967
927141	AC1-208 C	9.2701	80/20	9.2701
932631	AC2-084 C	9.1570	80/20	9.1570
933991	AD1-023 C	11.3636	80/20	11.3636
934331	AD1-057 C O1	15.8841	80/20	15.8841
934521	AD1-076 C	41.2196	80/20	41.2196
936401	AD2-051 C O1	10.5183	80/20	10.5183
938171	AE1-026 C O1	29.7099	80/20	29.7099
938221	AE1-035 C	2.6304	80/20	2.6304
938771	AE1-103 C O1	1.2888	80/20	1.2888
940491	AE2-034 C	4.2328	80/20	4.2328
940571	AE2-044 C	4.6376	80/20	4.6376
941541	AE2-151 C	1.1920	80/20	1.1920
943171	AE2-346 C	1.4462	80/20	1.4462
944141	AF1-082	2.9813	80/20	2.9813
945711	AF1-236 C O1	46.3386	80/20	46.3386
957521	AF2-046 C	14.4171	80/20	14.4171
957531	AF2-047 C	10.0578	80/20	10.0578
957861	AF2-080 C	7.8987	80/20	7.8987
959231	AF2-214 C	10.0206	80/20	10.0206
959511	AF2-242	7.0709	80/20	7.0709
959731	AF2-264 C	2.1330	80/20	2.1330
960331	AF2-324 C O1	8.5317	80/20	8.5317
960351	AF2-326 C	2.6147	80/20	2.6147
960831	AF2-374 C	1.3564	80/20	1.3564
961091	AF2-400 C	0.1911	80/20	0.1911
WEC	WEC	0.2592	Confirmed LTF	0.2592
LGEE	LGEE	0.4855	Confirmed LTF	0.4855
CPL	CPL	3.1474	Confirmed LTF	3.1474
CBM-W2	CBM-W2	10.3603	Confirmed LTF	10.3603
NY	NY	0.2947	Confirmed LTF	0.2947
CBM-W1	CBM-W1	9.7203	Confirmed LTF	9.7203
TVA	TVA	2.1686	Confirmed LTF	2.1686
CBM-S2	CBM-S2	19.2185	Confirmed LTF	19.2185
CBM-S1	CBM-S1	12.0899	Confirmed LTF	12.0899
MADISON	MADISON	0.6088	Confirmed LTF	0.6088
MEC	MEC	1.5652	Confirmed LTF	1.5652
AA2-074	AA2-074	2.1447	LTF	2.1447

11.6.36 Index 36

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
97890172	934330	AD1-057 TAP	DVP	313845	6HATHAWAY	DVP	1	314435 6SAPONY 230 940480 AE2-033 TAP 230 1	single	441.8	111.58	114.17	DC	11.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.1083	80/20	0.1083
314582	3KELFORD	0.2155	80/20	0.2155
314589	3MURPHYS	0.0653	80/20	0.0653
314704	3LAWRENC	0.3896	80/20	0.3896
315115	1S HAMPT1	0.8777	80/20	0.8777
315126	1ROARAP2	1.7360	80/20	1.7360
315128	1ROARAP4	1.6566	80/20	1.6566
315136	1ROSEMG1	5.4275	80/20	5.4275
315137	1ROSEMS1	3.3656	80/20	3.3656
315138	1ROSEMG2	2.5437	80/20	2.5437
315139	1GASTONA	6.7404	80/20	6.7404
315141	1GASTONB	6.7404	80/20	6.7404
315158	1KERR 1	0.2211	80/20	0.2211
315159	1KERR 2	0.6191	80/20	0.6191
315160	1KERR 3	0.6191	80/20	0.6191
315161	1KERR 4	0.6191	80/20	0.6191
315162	1KERR 5	0.6191	80/20	0.6191
315163	1KERR 6	0.6191	80/20	0.6191
315164	1KERR 7	0.6191	80/20	0.6191
315602	1HOLLOMANSOL	0.8693	80/20	0.8693
315606	3AA2-053SOLA	1.6478	80/20	1.6478
315607	3AA1-063SOLA	1.4950	80/20	1.4950
315608	3AA2-088SOLA	0.7892	80/20	0.7892
920671	AA2-174 C OP	0.0755	80/20	0.0755
922922	AB1-081 C OP	-7.0101	Adder	-8.25
923262	AB1-132 C OP (Suspended)	29.8402	80/20	29.8402
923572	AB1-173 C OP	3.1436	80/20	3.1436
923582	AB1-173AC OP	3.1436	80/20	3.1436
923801	AB2-015 C OP	4.4440	80/20	4.4440
923911	AB2-031 C O1	3.1203	80/20	3.1203
923991	AB2-040 C O1	10.2458	80/20	10.2458
924021	AB2-043 C O1	0.2522	80/20	0.2522
924161	AB2-060 C OP	0.7165	80/20	0.7165
924301	AB2-077 C O1 (Suspended)	0.9126	80/20	0.9126
924311	AB2-078 C O1 (Suspended)	0.9126	80/20	0.9126

924321	AB2-079 C O1 (Suspended)	0.9126	80/20	0.9126
924501	AB2-099 C (Suspended)	0.3668	80/20	0.3668
924511	AB2-100 C	3.7454	80/20	3.7454
925171	AB2-174 C O1	1.7382	80/20	1.7382
925611	AC1-036 C	0.3509	80/20	0.3509
925781	AC1-054 C O1	5.0828	80/20	5.0828
926071	AC1-086 C	43.9432	80/20	43.9432
933991	AD1-023 C	5.0932	80/20	5.0932
934331	AD1-057 C O1	37.4089	80/20	37.4089
934521	AD1-076 C	17.7924	80/20	17.7924
936261	AD2-033 C	5.0216	80/20	5.0216
936361	AD2-046 C O1	4.6131	80/20	4.6131
936401	AD2-051 C O1	5.2924	80/20	5.2924
936481	AD2-063 C O1	6.4152	80/20	6.4152
938171	AE1-026 C O1	13.5494	80/20	13.5494
938221	AE1-035 C	1.2599	80/20	1.2599
938771	AE1-103 C O1	1.7157	80/20	1.7157
939181	AE1-148 C O1	4.5263	80/20	4.5263
940241	AE2-006	0.1785	80/20	0.1785
940481	AE2-033 C	28.4978	80/20	28.4978
940661	AE2-053 O1	1.6764	80/20	1.6764
941541	AE2-151 C	0.6548	80/20	0.6548
942451	AE2-258	1.0909	80/20	1.0909
942471	AE2-260 C O1	26.4797	80/20	26.4797
943171	AE2-346 C	0.8804	80/20	0.8804
943911	AF1-059	15.8460	80/20	15.8460
946011	AF1-266	23.8549	80/20	23.8549
946281	AF1-292 C	2.3013	80/20	2.3013
957521	AF2-046 C	11.4630	80/20	11.4630
959311	AF2-222 C	5.9630	80/20	5.9630
959731	AF2-264 C	1.4676	80/20	1.4676
960081	AF2-299 C	3.8786	80/20	3.8786
960811	AF2-372 C	0.5765	80/20	0.5765
960831	AF2-374 C	0.9720	80/20	0.9720
961091	AF2-400 C	0.2400	80/20	0.2400
NEWTON	NEWTON	0.8360	Confirmed LTF	0.8360
FARMERCITY	FARMERCITY	0.0479	Confirmed LTF	0.0479
G-007A	G-007A	0.2973	Confirmed LTF	0.2973
VFT	VFT	0.7869	Confirmed LTF	0.7869
CALDERWOOD	CALDERWOOD	0.6550	Confirmed LTF	0.6550
PRAIRIE	PRAIRIE	2.2524	Confirmed LTF	2.2524
CHEOAH	CHEOAH	0.6717	Confirmed LTF	0.6717
EDWARDS	EDWARDS	0.2534	Confirmed LTF	0.2534
TILTON	TILTON	0.4479	Confirmed LTF	0.4479
GIBSON	GIBSON	0.4040	Confirmed LTF	0.4040
BLUEG	BLUEG	1.2464	Confirmed LTF	1.2464
TRIMBLE	TRIMBLE	0.3957	Confirmed LTF	0.3957
CATAWBA	CATAWBA	0.7028	Confirmed LTF	0.7028

11.6.37 Index 37

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
97708241	938530	AE1-072 TAP	DVP	314645	6SLIGO L269	DVP	1	DVP_P4-2: 246T247	breaker	699.0	103.12	103.66	DC	8.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314638	6ELIZ CT	0.4967	50/50	0.4967
314639	6TANGLEW	0.8729	50/50	0.8729
314643	3O INLET	1.0656	50/50	1.0656
315294	1DOMTR10	8.8062	Adder	10.36
315603	6AA1-139SOLA	4.0686	50/50	4.0686
315605	6W1-029WIND	1.5347	50/50	1.5347
315611	6Z1-036WIND	11.5545	50/50	11.5545
315614	AA2-178 C	2.1779	50/50	2.1779
901082	W1-029 E	59.6431	50/50	59.6431
913392	Y1-086 E	4.6979	50/50	4.6979
916042	Z1-036 E (Suspended)	77.4154	50/50	77.4154
917122	Z2-027 E	2.1688	50/50	2.1688
917332	Z2-043 E	0.4426	Adder	0.52
917512	Z2-088 E OP1	1.2591	Adder	1.48
918512	AA1-065 E OP	2.0333	Adder	2.39
918532	AA1-067 E	0.3014	Adder	0.35
919152	AA1-139 E	10.1088	50/50	10.1088
920692	AA2-178 E	5.4110	50/50	5.4110
923831	AB2-022 C	4.9252	50/50	4.9252
923832	AB2-022 E	2.6520	50/50	2.6520
924501	AB2-099 C (Suspended)	0.2252	Adder	0.26
924502	AB2-099 E (Suspended)	0.0965	Adder	0.11
925122	AB2-169 E	3.9865	Adder	4.69
926201	AC1-098 C	1.8393	Adder	2.16
926202	AC1-098 E	1.0958	Adder	1.29
926211	AC1-099 C	0.6164	Adder	0.73
926212	AC1-099 E	0.3620	Adder	0.43
927021	AC1-189 C	3.0543	Adder	3.59
927022	AC1-189 E	1.5214	Adder	1.79
932631	AC2-084 C	2.6220	Adder	3.08
932632	AC2-084 E	1.2914	Adder	1.52
933991	AD1-023 C	12.5555	50/50	12.5555
933992	AD1-023 E	6.8353	50/50	6.8353
934521	AD1-076 C	58.8485	50/50	58.8485
934522	AD1-076 E	29.9656	50/50	29.9656
936401	AD2-051 C O1	4.3765	Adder	5.15
936402	AD2-051 E O1	1.8792	Adder	2.21
937221	AD2-160 C O1	6.2104	50/50	6.2104
937222	AD2-160 E O1	3.2566	50/50	3.2566
938171	AE1-026 C O1	24.0460	Adder	28.29
938172	AE1-026 E O1	6.3439	Adder	7.46

938221	AE1-035 C	1.1352	Adder	1.34
938222	AE1-035 E	0.5591	Adder	0.66
938531	AE1-072 C O1	44.8847	50/50	44.8847
938532	AE1-072 E O1	23.3983	50/50	23.3983
940491	AE2-034 C	9.4693	50/50	9.4693
940492	AE2-034 E	4.0583	50/50	4.0583
941501	AE2-147 C	29.6568	50/50	29.6568
941502	AE2-147 E	19.7712	50/50	19.7712
941541	AE2-151 C	0.4642	Adder	0.55
941542	AE2-151 E	0.2499	Adder	0.29
942401	AE2-253 C	6.5322	50/50	6.5322
942402	AE2-253 E	2.9348	50/50	2.9348
942851	AE2-304 C	1.1364	50/50	1.1364
942852	AE2-304 E	0.4419	50/50	0.4419
943171	AE2-346 C	0.5406	Adder	0.64
943172	AE2-346 E	0.2317	Adder	0.27
944871	AF1-152 C	9.8856	50/50	9.8856
944872	AF1-152 E	6.5904	50/50	6.5904
945711	AF1-236 C O1	103.6665	50/50	103.6665
945712	AF1-236 E O1	169.1401	50/50	169.1401
957521	AF2-046 C	2.4827	Adder	5.51
957522	AF2-046 E	1.2488	Adder	2.77
957531	AF2-047 C	22.5009	50/50	22.5009
957532	AF2-047 E	11.3181	50/50	11.3181
957861	AF2-080 C	1.4702	Adder	3.26
957862	AF2-080 E	0.6518	Adder	1.45
957871	AF2-081 C O1	15.7248	50/50	15.7248
957872	AF2-081 E O1	6.7392	50/50	6.7392
959511	AF2-242	2.4593	Adder	5.46
959731	AF2-264 C	0.3991	Adder	0.89
959732	AF2-264 E	0.1966	Adder	0.44
960831	AF2-374 C	0.2499	Adder	0.55
960832	AF2-374 E	0.4078	Adder	0.91
WEC	WEC	0.0885	Confirmed LTF	0.0885
LGEE	LGEE	0.1660	Confirmed LTF	0.1660
CPL	CPL	1.0961	Confirmed LTF	1.0961
CBM-W2	CBM-W2	3.5381	Confirmed LTF	3.5381
NY	NY	0.1012	Confirmed LTF	0.1012
CBM-W1	CBM-W1	3.3151	Confirmed LTF	3.3151
TVA	TVA	0.7406	Confirmed LTF	0.7406
O-066	O-066	1.4650	Confirmed LTF	1.4650
CBM-S2	CBM-S2	6.5950	Confirmed LTF	6.5950
CBM-S1	CBM-S1	4.1322	Confirmed LTF	4.1322
G-007	G-007	0.2288	Confirmed LTF	0.2288
MADISON	MADISON	0.2076	Confirmed LTF	0.2076
MEC	MEC	0.5355	Confirmed LTF	0.5355

11.6.38 Index 38

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
98537128	940480	AE2-033 TAP	DVP	314435	6SAPONY	DVP	1	DVP_P7-1: LN 2058-2181	tower	830.0	126.8	128.2	DC	25.64

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314539	3UNCAMP	1.1800	Adder	1.39
314541	3WATKINS	0.4059	Adder	0.48
314572	3EMPORIA	0.1781	50/50	0.1781
314704	3LAWRENC	0.6562	50/50	0.6562
315126	1ROARAP2	2.3517	50/50	2.3517
315131	1EDGECEMA (Deactivation : 22/04/2019)	11.4287	Adder	13.45
315132	1EDGECEMB (Deactivation : 22/04/2019)	11.4287	Adder	13.45
315136	1ROSEMG1	4.4470	50/50	4.4470
315137	1ROSEMS1	2.7576	50/50	2.7576
315138	1ROSEMG2	2.0842	50/50	2.0842
315139	1GASTONA	6.6590	50/50	6.6590
315141	1GASTONB	6.6590	50/50	6.6590
315294	1DOMTR10	6.4730	Adder	7.62
900672	V4-068 E	0.2567	Adder	0.3
907092	X1-038 E	2.9500	Adder	3.47
917332	Z2-043 E	1.0904	Adder	1.28
917342	Z2-044 E	0.5705	Adder	0.67
917512	Z2-088 E OP1	3.8340	Adder	4.51
918492	AA1-063AE OP	4.7118	Adder	5.54
918512	AA1-065 E OP	3.1865	Adder	3.75
918532	AA1-067 E	0.5486	Adder	0.65
919692	AA2-053 E OP	4.8480	Adder	5.7
919702	AA2-057 E OP	3.5108	Adder	4.13
920042	AA2-088 E OP	8.5732	Adder	10.09
920592	AA2-165 E	0.4825	Adder	0.57
920672	AA2-174 E OP	0.5602	Adder	0.66
922922	AB1-081 C OP	8.7046	Adder	10.24
922923	AB1-081 E OP	3.7305	Adder	4.39
923262	AB1-132 C OP (Suspended)	29.4798	50/50	29.4798
923263	AB1-132 E OP (Suspended)	12.6342	50/50	12.6342
923572	AB1-173 C OP	4.8865	50/50	4.8865
923573	AB1-173 E OP	2.2803	50/50	2.2803
923582	AB1-173AC OP	4.8865	50/50	4.8865
923583	AB1-173AE OP	2.2803	50/50	2.2803
923801	AB2-015 C OP	4.7154	Adder	5.55
923802	AB2-015 E OP	3.8666	Adder	4.55
923911	AB2-031 C O1	4.8503	50/50	4.8503

923912	AB2-031 E O1	2.3889	50/50	2.3889
923991	AB2-040 C O1	15.9262	50/50	15.9262
923992	AB2-040 E O1	13.0306	50/50	13.0306
924022	AB2-043 E O1	1.9475	Adder	2.29
924152	AB2-059 E OP	5.2849	Adder	6.22
924162	AB2-060 E OP	2.9089	Adder	3.42
924301	AB2-077 C O1 (Suspended)	1.3639	Adder	1.6
924302	AB2-077 E O1 (Suspended)	0.9093	Adder	1.07
924311	AB2-078 C O1 (Suspended)	1.3639	Adder	1.6
924312	AB2-078 E O1 (Suspended)	0.9093	Adder	1.07
924321	AB2-079 C O1 (Suspended)	1.3639	Adder	1.6
924322	AB2-079 E O1 (Suspended)	0.9093	Adder	1.07
924501	AB2-099 C (Suspended)	0.5127	Adder	0.6
924502	AB2-099 E (Suspended)	0.2197	Adder	0.26
924511	AB2-100 C	6.2132	50/50	6.2132
924512	AB2-100 E	17.7411	50/50	17.7411
925122	AB2-169 E	3.7423	Adder	4.4
925171	AB2-174 C O1	2.7644	50/50	2.7644
925172	AB2-174 E O1	14.4997	50/50	14.4997
925591	AC1-034 C	6.6450	Adder	7.82
925592	AC1-034 E	5.0129	Adder	5.9
925611	AC1-036 C	0.5114	Adder	0.6
925612	AC1-036 E	0.8344	Adder	0.98
925781	AC1-054 C O1	6.7381	Adder	7.93
925782	AC1-054 E O1	3.1041	Adder	3.65
926071	AC1-086 C	43.4125	50/50	43.4125
926072	AC1-086 E	19.7585	50/50	19.7585
926201	AC1-098 C	6.4358	Adder	7.57
926202	AC1-098 E	3.8341	Adder	4.51
926211	AC1-099 C	2.1567	Adder	2.54
926212	AC1-099 E	1.2666	Adder	1.49
927021	AC1-189 C	7.8724	Adder	9.26
927022	AC1-189 E	3.9215	Adder	4.61
927141	AC1-208 C	10.1488	Adder	11.94
927142	AC1-208 E	4.5065	Adder	5.3
932631	AC2-084 C	9.1744	Adder	10.79
932632	AC2-084 E	4.5187	Adder	5.32
933991	AD1-023 C	8.0608	Adder	9.48
933992	AD1-023 E	4.3883	Adder	5.16
934331	AD1-057 C O1	17.4625	50/50	17.4625
934332	AD1-057 E O1	9.3152	50/50	9.3152
934521	AD1-076 C	29.9773	Adder	35.27
934522	AD1-076 E	15.2644	Adder	17.96
936261	AD2-033 C	7.3540	Adder	8.65
936262	AD2-033 E	4.9027	Adder	5.77
936361	AD2-046 C O1	6.7643	Adder	7.96
936362	AD2-046 E O1	3.1106	Adder	3.66
936401	AD2-051 C O1	7.1905	Adder	8.46

936402	AD2-051 E O1	3.0875	Adder	3.63
936481	AD2-063 C O1	9.4860	Adder	11.16
936482	AD2-063 E O1	6.2713	Adder	7.38
938171	AE1-026 C O1	20.8241	Adder	24.5
938172	AE1-026 E O1	5.4939	Adder	6.46
938221	AE1-035 C	1.7791	Adder	2.09
938222	AE1-035 E	0.8763	Adder	1.03
938771	AE1-103 C O1	1.7700	Adder	2.08
938772	AE1-103 E O1	2.4443	Adder	2.88
939181	AE1-148 C O1	6.6422	Adder	7.81
939182	AE1-148 E O1	4.4281	Adder	5.21
940241	AE2-006	0.2602	Adder	0.31
940481	AE2-033 C	64.4066	50/50	64.4066
940482	AE2-033 E	43.4202	50/50	43.4202
940571	AE2-044 C	4.3523	Adder	5.12
940572	AE2-044 E	1.8653	Adder	2.19
940661	AE2-053 O1	2.4601	Adder	2.89
941541	AE2-151 C	0.9553	Adder	1.12
941542	AE2-151 E	0.5144	Adder	0.61
942451	AE2-258	1.6248	Adder	1.91
942471	AE2-260 C O1	46.3897	50/50	46.3897
942472	AE2-260 E O1	65.7983	50/50	65.7983
943171	AE2-346 C	1.2305	Adder	1.45
943172	AE2-346 E	0.5274	Adder	0.62
943911	AF1-059	22.8480	Adder	26.88
944141	AF1-082	2.7979	Adder	3.29
946011	AF1-266	53.9134	50/50	53.9134
946281	AF1-292 C	3.8562	50/50	3.8562
946282	AF1-292 E	2.5997	50/50	2.5997
957521	AF2-046 C	7.6850	Adder	17.06
957522	AF2-046 E	3.8656	Adder	8.58
957861	AF2-080 C	3.7895	Adder	8.41
957862	AF2-080 E	1.6799	Adder	3.73
959231	AF2-214 C	4.9842	Adder	11.06
959232	AF2-214 E	7.4721	Adder	16.59
959311	AF2-222 C	4.5897	Adder	10.19
959312	AF2-222 E	3.0751	Adder	6.83
959511	AF2-242	2.8602	Adder	6.35
959731	AF2-264 C	1.0364	Adder	2.3
959732	AF2-264 E	0.5105	Adder	1.13
960081	AF2-299 C	6.4992	50/50	6.4992
960082	AF2-299 E	4.3328	50/50	4.3328
960122	AF2-303 E O1	7.8326	Adder	17.39
960331	AF2-324 C O1	5.0964	Adder	11.31
960332	AF2-324 E O1	2.7362	Adder	6.07
960351	AF2-326 C	1.2763	Adder	2.83
960352	AF2-326 E	0.3191	Adder	0.71
960811	AF2-372 C	0.4566	Adder	1.01
960812	AF2-372 E	0.7452	Adder	1.65
960831	AF2-374 C	0.6838	Adder	1.52
960832	AF2-374 E	1.1157	Adder	2.48
961091	AF2-400 C	0.1350	Adder	0.3
961092	AF2-400 E	0.2214	Adder	0.49

WEC	WEC	0.2000	Confirmed LTF	0.2000
LGEE	LGEE	0.3782	Confirmed LTF	0.3782
CPL	CPL	2.4542	Confirmed LTF	2.4542
CBM-W2	CBM-W2	8.0999	Confirmed LTF	8.0999
NY	NY	0.2992	Confirmed LTF	0.2992
CBM-W1	CBM-W1	7.4560	Confirmed LTF	7.4560
TVA	TVA	1.7052	Confirmed LTF	1.7052
O-066	O-066	4.2202	Confirmed LTF	4.2202
CBM-S2	CBM-S2	15.0916	Confirmed LTF	15.0916
CBM-S1	CBM-S1	9.4998	Confirmed LTF	9.4998
G-007	G-007	0.6594	Confirmed LTF	0.6594
MADISON	MADISON	0.4818	Confirmed LTF	0.4818
MEC	MEC	1.2156	Confirmed LTF	1.2156
AA2-074	AA2-074	1.6722	LTF	1.6722

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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
97889784	957790	AF2-073 TAP	DVP	957820	AF2-076 TAP	DVP	1	DVP_P1-2: LN 2092	single	571.52	147.23	150.79	DC	20.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0506	80/20	0.0506
314574	6EVERETS	0.4657	80/20	0.4657
314582	3KELFORD	0.7842	80/20	0.7842
314589	3MURPHYS	0.1032	80/20	0.1032
314623	3WITAKRS	0.2359	80/20	0.2359
314704	3LAWRENC	0.1825	80/20	0.1825
315126	1ROARAP2	1.4097	80/20	1.4097
315128	1ROARAP4	1.3452	80/20	1.3452
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315136	1ROSEMG1	2.3511	80/20	2.3511
315137	1ROSEMS1	1.4579	80/20	1.4579
315138	1ROSEMG2	1.1019	80/20	1.1019
315139	1GASTONA	3.4385	80/20	3.4385
315141	1GASTONB	3.4385	80/20	3.4385
315161	1KERR 4	0.5966	80/20	0.5966
315162	1KERR 5	0.5966	80/20	0.5966
315163	1KERR 6	0.5966	80/20	0.5966
315164	1KERR 7	0.5966	80/20	0.5966
315292	1DOMTR78	2.8729	80/20	2.8729
315294	1DOMTR10	21.5849	80/20	21.5849
315601	1CONETOE2SOL	1.9914	80/20	1.9914
315602	1HOLLOMANSOL	3.5568	80/20	3.5568
315606	3AA2-053SOLA	1.7258	80/20	1.7258
315607	3AA1-063SOLA	1.2920	80/20	1.2920
315608	3AA2-088SOLA	0.7480	80/20	0.7480
315611	6Z1-036WIND	13.8532	80/20	13.8532
315612	3AA2-057SOLA	1.3289	80/20	1.3289
315614	AA2-178 C	3.4313	80/20	3.4313
920591	AA2-165 C	0.1576	80/20	0.1576
920671	AA2-174 C OP	0.0790	80/20	0.0790
922922	AB1-081 C OP	8.5938	80/20	8.5938
923262	AB1-132 C OP (Suspended)	15.2225	80/20	15.2225
923572	AB1-173 C OP	1.8023	80/20	1.8023
923582	AB1-173AC OP	1.8023	80/20	1.8023
923911	AB2-031 C O1	1.7889	80/20	1.7889
923991	AB2-040 C O1	5.8740	80/20	5.8740
924151	AB2-059 C OP	1.7471	80/20	1.7471
924501	AB2-099 C (Suspended)	1.0074	80/20	1.0074

924511	AB2-100 C	1.2658	80/20	1.2658
925121	AB2-169 C	2.0776	80/20	2.0776
925171	AB2-174 C O1	0.9219	80/20	0.9219
925591	AC1-034 C	6.5604	80/20	6.5604
925781	AC1-054 C O1	4.5595	80/20	4.5595
926071	AC1-086 C	22.4169	80/20	22.4169
926201	AC1-098 C	8.0374	80/20	8.0374
926211	AC1-099 C	2.6934	80/20	2.6934
927021	AC1-189 C	11.8954	80/20	11.8954
927141	AC1-208 C	10.1471	80/20	10.1471
932631	AC2-084 C	11.4575	80/20	11.4575
933991	AD1-023 C	28.2004	80/20	28.2004
934331	AD1-057 C O1	10.1856	80/20	10.1856
934521	AD1-076 C	113.9255	80/20	113.9255
935111	AD1-144 C	-0.7751	Adder	-0.91
936401	AD2-051 C O1	19.8648	80/20	19.8648
937541	AD2-215 C	-0.7831	Adder	-0.92
938171	AE1-026 C O1	69.7636	80/20	69.7636
938221	AE1-035 C	5.1550	80/20	5.1550
940491	AE2-034 C	14.9192	80/20	14.9192
940571	AE2-044 C	4.2969	80/20	4.2969
941541	AE2-151 C	2.0903	80/20	2.0903
942131	AE2-225 C	-1.0773	Adder	-1.27
942171	AE2-229 C	-1.0773	Adder	-1.27
942471	AE2-260 C O1	8.3171	80/20	8.3171
943171	AE2-346 C	2.4178	80/20	2.4178
943911	AF1-059	8.3370	80/20	8.3370
944141	AF1-082	2.7623	80/20	2.7623
945711	AF1-236 C O1	163.3302	80/20	163.3302
946281	AF1-292 C	0.9859	80/20	0.9859
957521	AF2-046 C	20.4051	80/20	20.4051
957531	AF2-047 C	35.4510	80/20	35.4510
957791	AF2-073 C (Withdrawn : 07/02/2020)	41.1750	80/20	41.1750
957801	AF2-074 C (Withdrawn : 07/02/2020)	18.3000	80/20	18.3000
957861	AF2-080 C	10.8039	80/20	10.8039
959231	AF2-214 C	9.2843	80/20	9.2843
959511	AF2-242	13.9123	80/20	13.9123
959731	AF2-264 C	3.3334	80/20	3.3334
960081	AF2-299 C	1.6616	80/20	1.6616
960331	AF2-324 C O1	7.6094	80/20	7.6094
960351	AF2-326 C	2.4520	80/20	2.4520
960831	AF2-374 C	2.1136	80/20	2.1136
WEC	WEC	0.3333	Confirmed LTF	0.3333
LGEE	LGEE	0.6224	Confirmed LTF	0.6224
CPL	CPL	3.7739	Confirmed LTF	3.7739
CBM-W2	CBM-W2	12.8665	Confirmed LTF	12.8665
NY	NY	0.2909	Confirmed LTF	0.2909
CBM-W1	CBM-W1	12.5600	Confirmed LTF	12.5600
TVA	TVA	2.6600	Confirmed LTF	2.6600
CBM-S2	CBM-S2	22.9639	Confirmed LTF	22.9639
CBM-S1	CBM-S1	14.9015	Confirmed LTF	14.9015
MADISON	MADISON	0.7056	Confirmed LTF	0.7056

MEC	MEC	1.9799	Confirmed LTF	1.9799
AA2-074	AA2-074	2.5717	LTF	2.5717

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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
97889772	957820	AF2-076 TAP	DVP	314537	6SUFFOLK	DVP	1	DVP_P1-2: LN 2092	single	571.52	147.5	151.06	DC	20.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.0506	80/20	0.0506
314574	6EVERETS	0.4657	80/20	0.4657
314582	3KELFORD	0.7842	80/20	0.7842
314589	3MURPHYS	0.1032	80/20	0.1032
314623	3WITAKRS	0.2359	80/20	0.2359
314704	3LAWRENC	0.1825	80/20	0.1825
315126	1ROARAP2	1.4097	80/20	1.4097
315128	1ROARAP4	1.3452	80/20	1.3452
315131	1EDGECSMA (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315132	1EDGECSMB (Deactivation : 22/04/2019)	9.0439	80/20	9.0439
315136	1ROSEMG1	2.3511	80/20	2.3511
315137	1ROSEMS1	1.4579	80/20	1.4579
315138	1ROSEMG2	1.1019	80/20	1.1019
315139	1GASTONA	3.4385	80/20	3.4385
315141	1GASTONB	3.4385	80/20	3.4385
315161	1KERR 4	0.5966	80/20	0.5966
315162	1KERR 5	0.5966	80/20	0.5966
315163	1KERR 6	0.5966	80/20	0.5966
315164	1KERR 7	0.5966	80/20	0.5966
315292	1DOMTR78	2.8729	80/20	2.8729
315294	1DOMTR10	21.5849	80/20	21.5849
315601	1CONETOESOL	1.9914	80/20	1.9914
315602	1HOLLOMANSOL	3.5568	80/20	3.5568
315606	3AA2-053SOLA	1.7258	80/20	1.7258
315607	3AA1-063SOLA	1.2920	80/20	1.2920
315608	3AA2-088SOLA	0.7480	80/20	0.7480
315611	6Z1-036WIND	13.8532	80/20	13.8532
315612	3AA2-057SOLA	1.3289	80/20	1.3289
315614	AA2-178 C	3.4313	80/20	3.4313
920591	AA2-165 C	0.1576	80/20	0.1576
920671	AA2-174 C OP	0.0790	80/20	0.0790
922922	AB1-081 C OP	8.5938	80/20	8.5938
923262	AB1-132 C OP (Suspended)	15.2225	80/20	15.2225
923572	AB1-173 C OP	1.8023	80/20	1.8023
923582	AB1-173AC OP	1.8023	80/20	1.8023
923911	AB2-031 C O1	1.7889	80/20	1.7889
923991	AB2-040 C O1	5.8740	80/20	5.8740
924151	AB2-059 C OP	1.7471	80/20	1.7471
924501	AB2-099 C (Suspended)	1.0074	80/20	1.0074

924511	AB2-100 C	1.2658	80/20	1.2658
925121	AB2-169 C	2.0776	80/20	2.0776
925171	AB2-174 C O1	0.9219	80/20	0.9219
925591	AC1-034 C	6.5604	80/20	6.5604
925781	AC1-054 C O1	4.5595	80/20	4.5595
926071	AC1-086 C	22.4169	80/20	22.4169
926201	AC1-098 C	8.0374	80/20	8.0374
926211	AC1-099 C	2.6934	80/20	2.6934
927021	AC1-189 C	11.8954	80/20	11.8954
927141	AC1-208 C	10.1471	80/20	10.1471
932631	AC2-084 C	11.4575	80/20	11.4575
933991	AD1-023 C	28.2004	80/20	28.2004
934331	AD1-057 C O1	10.1856	80/20	10.1856
934521	AD1-076 C	113.9255	80/20	113.9255
936401	AD2-051 C O1	19.8648	80/20	19.8648
938171	AE1-026 C O1	69.7636	80/20	69.7636
938221	AE1-035 C	5.1550	80/20	5.1550
940491	AE2-034 C	14.9192	80/20	14.9192
940571	AE2-044 C	4.2969	80/20	4.2969
941541	AE2-151 C	2.0903	80/20	2.0903
942131	AE2-225 C	-1.0773	Adder	-1.27
942171	AE2-229 C	-1.0773	Adder	-1.27
942471	AE2-260 C O1	8.3171	80/20	8.3171
943171	AE2-346 C	2.4178	80/20	2.4178
943911	AF1-059	8.3370	80/20	8.3370
944141	AF1-082	2.7623	80/20	2.7623
945711	AF1-236 C O1	163.3302	80/20	163.3302
946281	AF1-292 C	0.9859	80/20	0.9859
957521	AF2-046 C	20.4051	80/20	20.4051
957531	AF2-047 C	35.4510	80/20	35.4510
957791	AF2-073 C (Withdrawn : 07/02/2020)	41.1750	80/20	41.1750
957801	AF2-074 C (Withdrawn : 07/02/2020)	18.3000	80/20	18.3000
957821	AF2-076 C O1	25.8699	80/20	25.8699
957861	AF2-080 C	10.8039	80/20	10.8039
959231	AF2-214 C	9.2843	80/20	9.2843
959511	AF2-242	13.9123	80/20	13.9123
959731	AF2-264 C	3.3334	80/20	3.3334
960081	AF2-299 C	1.6616	80/20	1.6616
960331	AF2-324 C O1	7.6094	80/20	7.6094
960351	AF2-326 C	2.4520	80/20	2.4520
960831	AF2-374 C	2.1136	80/20	2.1136
WEC	WEC	0.3333	Confirmed LTF	0.3333
LGEE	LGEE	0.6224	Confirmed LTF	0.6224
CPL	CPL	3.7739	Confirmed LTF	3.7739
CBM-W2	CBM-W2	12.8665	Confirmed LTF	12.8665
NY	NY	0.2909	Confirmed LTF	0.2909
CBM-W1	CBM-W1	12.5600	Confirmed LTF	12.5600
TVA	TVA	2.6600	Confirmed LTF	2.6600
CBM-S2	CBM-S2	22.9639	Confirmed LTF	22.9639
CBM-S1	CBM-S1	14.9015	Confirmed LTF	14.9015
MADISON	MADISON	0.7056	Confirmed LTF	0.7056
MEC	MEC	1.9799	Confirmed LTF	1.9799

AA2-074	AA2-074	2.5717	LTF	2.5717
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11.7 Queue Dependencies

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

Queue Number	Project Name	Status
AA1-063	Huntsville (Cabin Creek) 69kV	Withdrawn
AA1-063A	Carolina–Seaboard 115kV	In Service
AA1-065	Earleys 230kV	In Service
AA1-067	Everetts 34.5kV	In Service
AA1-139	Hickory-Shawboro 230kV	In Service
AA2-053	Carolina-Jackson 115kV	In Service
AA2-057	Hornertown-Whitakers 115kV	In Service
AA2-074	CPL-PJM	Confirmed
AA2-088	Boykins-Handsome 115kV	In Service
AA2-165	Hornertown-Whitakers 115kV	In Service
AA2-174	Carolina-Jackson 115kV	In Service
AA2-178	Mackeys 230kV	Under Construction
AB1-081	Anaconda-Mayo Dunbar 115kV	Under Construction
AB1-132	Thelma 230kV	Suspended
AB1-173	Brink-Trego 115kV	Engineering and Procurement
AB1-173A	Brink-Trego 115kV	Engineering and Procurement
AB2-015	Franklin 115kV	Engineering and Procurement
AB2-022	Elizabeth City 34.5kV	Engineering and Procurement
AB2-025	Sapony 34.5kV	In Service
AB2-031	Brink-Trego 115kV	Engineering and Procurement
AB2-040	Brink 115kV	Engineering and Procurement
AB2-043	Chase City 115kV	Under Construction
AB2-059	Benson-Dunbar 115kV	Under Construction
AB2-060	Chase City-Lunenburg 115kV	Under Construction
AB2-077	Buggs Island-Chase City 115kV	Suspended
AB2-078	Buggs Island-Chase City 115kV	Suspended
AB2-079	Buggs Island-Chase City 115kV	Suspended
AB2-099	Ahoskie 34.5kV	Suspended
AB2-100	Clubhouse-Lakeview 230kV	Under Construction
AB2-134	Hopewell-Surry 230kV	In Service
AB2-160	Reams 115kV	Suspended
AB2-161	Waverly #2 DP 115kV	Suspended
AB2-169	Pantago-Five Points 115kV	Partially in Service - Under Construction
AB2-174	Emporia-Trego 115kV	Under Construction
AB2-190	Hopewell-Surry 230kV	Engineering and Procurement
AC1-034	Heartsease DP - Mayo Dunbar 115kV	Active
AC1-036	Twittys Creek 34.5kV	Engineering and Procurement
AC1-054	Kerr Dam–Eatons Ferry 115 kV	Engineering and Procurement
AC1-065	Harmony Village-Shackleford 115kV	Engineering and Procurement

AC1-086	Thelma 230kV	Active
AC1-098	Dawson-South Justice 115kV	Engineering and Procurement
AC1-099	Dawson-South Justice 115kV	Engineering and Procurement
AC1-105	Halifax-Mt. Laurel 115kV	Suspended
AC1-131	PJM-CPLE	Confirmed
AC1-147	Grassfield 34.5kV	Engineering and Procurement
AC1-161	Septa 500kV	Active
AC1-164	Chickahominy 230kV	Engineering and Procurement
AC1-189	Chinquapin-Everetts 230kV	Active
AC1-208	Cox-Whitakers 115kV	Active
AC1-216	Hopewell-Surry 230kV	Under Construction
AC1-221	Halifax-Person 230kV	Engineering and Procurement
AC1-222	Crystal Hill-Halifax 115kV	Engineering and Procurement
AC2-012	Grassfield-Great Bridge 115kV	Active
AC2-070	Old Church 34.5kV	Engineering and Procurement
AC2-078	Disputanta-Waverly 115kV	Active
AC2-079	Ivor-Oakridge 115kV	Active
AC2-084	Dawson-South Justice 115kV	Active
AC2-100	Halifax-Person 230kV	Active
AC2-110	Harmony Village-Shackleford 115kV	Engineering and Procurement
AC2-137	Elko 34.5kV	Under Construction
AC2-138	Northern Neck 34.5kV	Under Construction
AC2-141	Septa 500kV	Active
AC2-165	Bremo-Powhatan 230kV	Active
AC2-196	Fentress 34.5kV	Engineering and Procurement
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-025	Hopewell-Surry 230 kV	Active
AD1-033	Fentress-Landstown 230 kV	Active
AD1-046	Oak Grove 34.5 kV III	Engineering and Procurement
AD1-055	Crystal Hill-Halifax 115 kV	Engineering and Procurement
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-058	Halifax-Person 230 kV	Engineering and Procurement
AD1-076	Trowbridge 230 kV	Active
AD1-082	Bakers Pond-Ivor 115kV	Active
AD1-087	Clover-Sedge Hill 230 kV	Active
AD1-131	Sedge Hill-Person 230 kV	Active
AD1-144	Kings Fork 34.5 kV	Engineering and Procurement
AD1-151	Hopewell-Surry 230 kV	Active
AD1-152	Clover-Sedge Hill 230 kV	Active
AD2-007	Hopewell-Surry 230 kV	Active
AD2-008	Hopewell-Surry 230 kV	Active
AD2-021	Elko 34.5 kV	Under Construction
AD2-033	Chase City-Lunenburg 115 kV	Active
AD2-039	Harmony Village-Shackleford 115 kV	Engineering and Procurement
AD2-044	Northern Neck 34.5 kV	Under Construction
AD2-046	Boydton DP-Kerr Dam 115 kV	Active
AD2-051	Earleys – Northampton 230kV	Active
AD2-063	Central-Chase City 115kV	Active
AD2-085	Myrtle-Windsor DP 115kV	Active
AD2-097	Spruance NUG 230kV	In Service
AD2-160	Hickory-Moyock 230kV	Active
AD2-164	Peninsula 34.5kV	Withdrawn
AD2-202	Clover-Sedge Hill 230kV	Active

AD2-215	Kings Fork 34.5 kV	Engineering and Procurement
AE1-004	Harmony Village-Shackleford 115 kV	Engineering and Procurement
AE1-026	Cashie 230 kV	Active
AE1-035	Earleys 230 kV	Engineering and Procurement
AE1-068	Carson-Rogers Rd 500 kV	Active
AE1-069	Carson-Rogers Road 500 kV	Active
AE1-072	Shawboro-Sligo 230 kV	Active
AE1-074	Winterpock 34.5 kV	Engineering and Procurement
AE1-075	Powhatan 34.5 kV	Engineering and Procurement
AE1-085	Bakers Pond-Bell Ave 115 kV	Active
AE1-103	Holland-Union Camp 115 kV	Active
AE1-124	Oak Grove 34.5 kV	Engineering and Procurement
AE1-148	Kerr Dam-Ridge Rd 115 kV	Active
AE1-149	Disputanta-Poe 115 kV	Active
AE1-162	Smithfield 34.5 kV	Engineering and Procurement
AE1-173	Carson-Suffolk 500 kV	Active
AE1-174	Light Foot 34.5 kV	Withdrawn
AE1-175	Light Foot 34.5 kV	Engineering and Procurement
AE2-000B	N/A	N/A
AE2-006	Twittys Creek 34.5 kV	Engineering and Procurement
AE2-007	Chesapeake 230 kV	Active
AE2-027	Harrowgate-Locks 115kV	Active
AE2-031	Carson-Rawlings 500 kV	Active
AE2-033	Clubhouse-Sappony 230 kV	Active
AE2-034	Mackeys 230 kV	Active
AE2-040	Sapony 34.5 kV	Active
AE2-044	Anaconda-Dunbar 115 kV	Active
AE2-051	Carson-Septa 500 kV	Active
AE2-052	Disputanta-Poe 115 kV	Active
AE2-053	Kerr Dam-Ridge Road 115 kV	Active
AE2-078	Poolesville 34.5 kV	Engineering and Procurement
AE2-079	Poolesville 34.5 kV	Engineering and Procurement
AE2-094	Carson-Rogers Road 500 kV	Active
AE2-104	Suffolk 115 kV	Active
AE2-122	Birdneck-Landstown 230 kV	Active
AE2-123	Birdneck-Landstown 230 kV	Active
AE2-124	Landstown 230 kV	Active
AE2-147	Swamp 230 kV	Active
AE2-151	Earleys 34.5kV	Engineering and Procurement
AE2-156	Yadkin 115 kV	Active
AE2-212	Harrowgate 34 kV	Active
AE2-225	Suffolk 34 kV	Engineering and Procurement
AE2-227	Iron Bridge 34 kV	Active
AE2-228	Tyler 34 kv	Active
AE2-229	Suffolk 34 kV	Engineering and Procurement
AE2-247	Myrtle-Windsor 115 kV	Active
AE2-250	Purdy Sw.-Reams 115 kV	Active
AE2-253	Hickory-Moyock 230 kV	Active
AE2-258	Chase City 115 kV	Active
AE2-260	Clubhouse 230 kV	Active
AE2-270	Hopewell-Surry 230 kV	Active
AE2-304	South Hertford 34 kV	Engineering and Procurement
AE2-313	Carson-Rawlings 500 kV	Active

AE2-346	Ahoskie 34.5 kV	Active
AF1-017	Myrtle-Windsor 115 kV	Active
AF1-032	Suffolk 34.5 kV	Engineering and Procurement
AF1-033	Poolesville 34 kV	Engineering and Procurement
AF1-058	Welco 34.5 kV	Engineering and Procurement
AF1-059	Brodnax-South Hill 115 kV	Active
AF1-069	Carson-Rogers Rd 500 kV	Active
AF1-082	Heartsease-Mayo Dunbar DP	Active
AF1-115	Poolesville 230 kV	Active
AF1-123	Fentress 500 kV	Active
AF1-124	Fentress 500 kV	Active
AF1-125	Fentress 500 kV	Active
AF1-128	Chesterfield 230 kV	Active
AF1-152	Swamp 230 kV	Active
AF1-201	Hayes-Whitemarsh 115 kV	Active
AF1-236	Mackeys 230 kV	Active
AF1-246	Clover-Rawlings 500 kV	Active
AF1-266	Clubhouse-Sapony 230 kV	Active
AF1-291	Tyler 34.5 kV	Engineering and Procurement
AF1-292	Fields Crossroads 34.5 kV	Active
AF2-042	Clover 500 kV	Active
AF2-043	Suffolk 34.5 kV	Active
AF2-046	Tunis-Mapleton 115 kV	Active
AF2-047	Creswell-Riders Creek 115 kV	Active
AF2-057	Grassfield 34.5 kV	Active
AF2-065	Surry-Hopewell 230 kV	Active
AF2-073	Nucor Steel-Suffolk 230 kV	Withdrawn
AF2-074	Nucor Steel-Suffolk 230 kV	Withdrawn
AF2-076	Suffolk-Nucor Steel 230 kV	Active
AF2-077	White Marsh 34.5 kV	Active
AF2-080	Chinquapin-Everetts 230 kV	Active
AF2-081	Moyock 230 kV	Active
AF2-085	Midlothian 34.5 kV	Active
AF2-108	Locks 34.5 kV	Active
AF2-110	Suffolk 115 kV	Active
AF2-144	Powhatan 34.5 kV	Active
AF2-214	Heartsease DP-Anaconda 115 kV	Active
AF2-222	Pamplin-Chase City 115 kV	Active
AF2-242	Wharton 115 kV	Active
AF2-244	Powhatan 34.5 kV	Active
AF2-255	Iron Bridge 34.5 kV	Active
AF2-256	Tyler 34.5 kV	Active
AF2-257	Tyler 34.5 kV	Active
AF2-258	Harrowgate 34.5 kV	Active
AF2-259	Locks 34.5 kV	Active
AF2-264	Tunis 34.5 kV	Active
AF2-266	Clover 230 kV	Active
AF2-297	Sedge Hill 115 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-301	Poolesville-Winchester 230 kV	Active
AF2-303	Edgecombe 230 kV	Active
AF2-324	Edgecombe 230 kV	Active
AF2-326	Edgecombe 13 kV	Active

AF2-327	Wakefield 13 kV	Active
AF2-372	Black Branch 34.5 kV	Active
AF2-373	Mount Laurel 115 kV	Active
AF2-374	Woodland 34.5 kV	Active
AF2-400	Franklin 13.2 kV	Active
AF2-402	Ivor-Oak Ridge 115 kV	Active
V4-068	Murphy's 34.5kV	In Service
W1-029	Winfall 230kV	In Service
X1-038	Union Camp 115kV	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

Contingency Name	Contingency Definition
DVP_P1-2: LN 567	CONTINGENCY 'DVP_P1-2: LN 567' OPEN BRANCH FROM BUS 314903 TO BUS 314924 CKT 1 /* 8CHCKAHM 500.00 - 8SURREY 500.00 END
DVP_P1-2: LN 563	CONTINGENCY 'DVP_P1-2: LN 563' OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTHAN 500.00 END
DVP_P4-2: 218T2160	CONTINGENCY 'DVP_P4-2: 218T2160' /* EVERETTS 230 KV OPEN BRANCH FROM BUS 304451 TO BUS 314574 CKT 1 /* 6GREENVILLE T230.00 - 6EVERETS 230.00 OPEN BRANCH FROM BUS 927020 TO BUS 314574 CKT 1 /* AC1-189 TAP 230.00 - 6EVERETS 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

DVP_P1-2: LN 246	CONTINGENCY 'DVP_P1-2: LN 246' OPEN BRANCH FROM BUS 957790 TO BUS 314575 CKT 1 /* 6SUFFOLK 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: 562T563	CONTINGENCY 'DVP_P4-2: 562T563' /* CARSON 500 KV OPEN BRANCH FROM BUS 314902 TO BUS 940640 CKT 1 /* 8CARSON 500.00 - AE2- 051 TAP 500.00 OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTHAN 500.00 END
DVP_P1-2: LN 136	CONTINGENCY 'DVP_P1-2: LN 136' OPEN BRANCH FROM BUS 314551 TO BUS 314568 CKT 1 /* 3AHOSKIE 115.00 - 3EARLEYS 115.00 OPEN BRANCH FROM BUS 314551 TO BUS 314617 CKT 1 /* 3AHOSKIE 115.00 - 3TUNIS 115.00 OPEN BUS 314551 /* ISLAND: 3AHOSKIE 115.00 END
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_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_P4-2: 2012T2014	CONTINGENCY 'DVP_P4-2: 2012T2014' /* EARLEYS 230 KV OPEN BRANCH FROM BUS 936400 TO BUS 314569 CKT 1 /* AD2-051 TAP 230.00 - 6EARLEYS 230.00 OPEN BRANCH FROM BUS 313857 TO BUS 314569 CKT 1 /* 6WINDSORDP 230.00 - 6EARLEYS 230.00 OPEN BRANCH FROM BUS 313857 TO BUS 314574 CKT 1 /* 6WINDSORDP 230.00 - 6EVERETS 230.00 OPEN BUS 313857 /* ISLAND: 6WINDSORDP 230.00 OPEN BUS 314552 /* ISLAND: 3WINDSORDP 115.00 END
DVP_P4-2: 201262	CONTINGENCY 'DVP_P4-2: 201262' /* EARLEYS 230 KV OPEN BRANCH FROM BUS 936400 TO BUS 314569 CKT 1 /* AD2-051 TAP 230.00 - 6EARLEYS 230.00 OPEN BRANCH FROM BUS 314568 TO BUS 314569 CKT 1 /* 3EARLEYS 115.00 - 6EARLEYS 230.00 END
DVP_P1-2: LN 2181	CONTINGENCY 'DVP_P1-2: LN 2181' OPEN BUS 304226 /* ISLAND: 6PA-RMOUNT#4115.00 OPEN BRANCH FROM BUS 304226 TO BUS 314591 CKT 1 /* 6PA-RMOUNT#4230.00 - 6NASH 230.00 OPEN BRANCH FROM BUS 313845 TO BUS 314591 CKT 1 /* 6HATHAWAY 230.00 - 6NASH 230.00 OPEN BUS 314591 /* ISLAND: 6NASH 230.00 END
DVP_P1-2: LN 68	CONTINGENCY 'DVP_P1-2: LN 68' OPEN BRANCH FROM BUS 314527 TO BUS 314536 CKT 1 /* 3HOLLAND 115.00 - 3SUFFOLK 115.00 OPEN BRANCH FROM BUS 314527 TO BUS 314539 CKT 1 /* 3HOLLAND 115.00 - 3UNCAMP 115.00 OPEN BUS 314527 /* ISLAND: 3HOLLAND 115.00 END
314572 3EMPORIA 115 925170 AB2-174 TAP 115 1	CONTINGENCY '314572 3EMPORIA 115 925170 AB2-174 TAP 115 1' OPEN BRANCH FROM BUS 314572 TO BUS 925170 CKT 1 END
DVP_P1-2: LN 238-B	CONTINGENCY 'DVP_P1-2: LN 238-B' OPEN BRANCH FROM BUS 940480 TO BUS 314563 CKT 1 /* AE2-033 TAP 230.00 - 6CLUBHSE 230.00 OPEN BRANCH FROM BUS 314562 TO BUS 314563 CKT 1 /* 3CLUBHSE 115.00 - 6CLUBHSE 230.00 END

DVP_P1-2: LN 238-A	CONTINGENCY 'DVP_P1-2: LN 238-A' OPEN BRANCH FROM BUS 314282 TO BUS 314435 CKT 1 /* 6CARSON 230.00 - 6SAPONY 230.00 OPEN BRANCH FROM BUS 314435 TO BUS 940480 CKT 1 /* 6SAPONY 230.00 - AE2- 033 TAP 230.00 OPEN BUS 314435 /* ISLAND: 6SAPONY 230.00 OPEN BUS 923852 /* ISLAND: AB2-025 E 230.00 END
DVP_P7-1: LN 54-2012-B	CONTINGENCY 'DVP_P7-1: LN 54-2012-B' /* . OPEN BRANCH FROM BUS 313722 TO BUS 314581 CKT 1 /* 3OCCONEECHEE115.00 - 3JACKSON 115.00 OPEN BRANCH FROM BUS 314568 TO BUS 314625 CKT 1 /* 3EARLEYS 115.00 - 3AULANDR 115.00 OPEN BRANCH FROM BUS 314581 TO BUS 314626 CKT 1 /* 3JACKSON 115.00 - 3WOODLND 115.00 OPEN BRANCH FROM BUS 314625 TO BUS 314626 CKT 1 /* 3AULANDR 115.00 - 3WOODLND 115.00 OPEN BUS 314581 /* ISLAND: 3JACKSON 115.00 OPEN BUS 314625 /* ISLAND: 3AULANDR 115.00 OPEN BUS 314626 /* ISLAND: 3WOODLND 115.00 OPEN BRANCH FROM BUS 936400 TO BUS 314569 CKT 1 /* AD2-051 TAP - 6EARLEYS 230.00 OPEN BRANCH FROM BUS 314266 TO BUS 314599 CKT 1 /* 6NORTHAMPTON230.00 - 6ROA VAL 230.00 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 - 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 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
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 2056-B	CONTINGENCY 'DVP_P1-2: LN 2056-B' OPEN BRANCH FROM BUS 934330 TO BUS 314579 CKT 1 /* AD1-057 TAP 230.00 - 6HORNRTN 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 /* 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_P1-2: LN 574	CONTINGENCY 'DVP_P1-2: LN 574' OPEN BRANCH FROM BUS 314908 TO BUS 314911 CKT 1 /* 8ELMONT 500.00 - 8LADYSMITH 500.00 END
Base Case	
DVP_P1-2: LN 2002	CONTINGENCY 'DVP_P1-2: LN 2002' OPEN BRANCH FROM BUS 314282 TO BUS 314331 CKT 1 /* 6CARSON 230.00 - 6POE 230.00 OPEN BRANCH FROM BUS 314329 TO BUS 314331 CKT 1 /* 3POE 115.00 - 6POE 230.00 END
DVP_P1-2: LN 249	CONTINGENCY 'DVP_P1-2: LN 249' OPEN BRANCH FROM BUS 314282 TO BUS 314285 CKT 1 /* 6CARSON 230.00 - 6CHRL249 230.00 OPEN BRANCH FROM BUS 314285 TO BUS 314316 CKT 1 /* 6CHRL249 230.00 - 6LOCKS 230.00 OPEN BRANCH FROM BUS 314314 TO BUS 314316 CKT 2 /* 3LOCKS 115.00 - 6LOCKS 230.00 OPEN BUS 314285 /* ISLAND: 6CHRL249 230.00 END
314435 6SAPONY 230 940480 AE2-033 TAP 230 1	CONTINGENCY '314435 6SAPONY 230 940480 AE2-033 TAP 230 1' OPEN BRANCH FROM BUS 314435 TO BUS 940480 CKT 1 END

DVP_P1-2: LN 1010	CONTINGENCY 'DVP_P1-2: LN 1010' OPEN BRANCH FROM BUS 313723 TO BUS 314259 CKT 1 /* 3PECAN 115.00 - 3CAROL56_1 115.00 OPEN BRANCH FROM BUS 314259 TO BUS 314559 CKT Z1 /* 3CAROL56_1 115.00 - 3CAROLNA 115.00 OPEN BRANCH FROM BUS 314259 TO BUS 314835 CKT 1 /* 3CAROL56_1 115.00 - 3CAROL_1 115.00 OPEN BUS 314259 /* ISLAND: 3CAROL56_1 115.00 OPEN BUS 314835 /* ISLAND: 3CAROL_1 115.00 END
DVP_P1-2: LN 2058	CONTINGENCY 'DVP_P1-2: LN 2058' OPEN BRANCH FROM BUS 304222 TO BUS 313845 CKT 1 /* 6ROCKYMT230T230.00 - 6HATHAWAY 230.00 OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 2 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 END
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 1014	CONTINGENCY 'DVP_P1-2: LN 1014' OPEN BRANCH FROM BUS 313844 TO BUS 314554 CKT 1 /* 3HATHAWAY 115.00 - 3BTLEBRO 115.00 END
DVP_P1-2: LN 5254	CONTINGENCY 'DVP_P1-2: LN 5254' OPEN BRANCH FROM BUS 314563 TO BUS 924510 CKT 1 /* 6CLUBHSE 230.00 - AB2- 100 TAP 230.00 END
DVP_P1-2: LN 2012-B	CONTINGENCY 'DVP_P1-2: LN 2012-B' OPEN BRANCH FROM BUS 936400 TO BUS 314569 CKT 1 /* AD2-051 TAP230.00 - 6EARLEYS 230.00 END

DVP_P4-2: 24972-4	CONTINGENCY 'DVP_P4-2: 24972-4' /* CARSON 230 KV OPEN BRANCH FROM BUS 314282 TO BUS 314285 CKT 1 /* 6CARSON 230.00 - 6CHRL249 230.00 OPEN BRANCH FROM BUS 314285 TO BUS 314316 CKT 1 /* 6CHRL249 230.00 - 6LOCKS 230.00 OPEN BRANCH FROM BUS 314314 TO BUS 314316 CKT 2 /* 3LOCKS 115.00 - 6LOCKS 230.00 OPEN BUS 314285 /* ISLAND: 6CHRL249 230.00 OPEN BRANCH FROM BUS 314282 TO BUS 314902 CKT 1 /* 6CARSON 230.00 - 8CARSON 500.00 OPEN BUS 314455 /* 6CARSO_1 230.00 KV END
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12 Short Circuit Analysis

Short circuit analysis will be provided in the System Impact Study report.

13 Affected Systems

13.1 TVA

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

13.2 Duke Energy Progress

Potential Duke Energy Progress Impacts identified.

14 Attachment 1: One Line Diagram