



**Generation Interconnection
Feasibility Study Report
for
Queue Project AF2-214
HEARTSEASE DP-ANACONDA 115 KV
60.5 MW Capacity / 151.2 MW Energy**

July 2020

Table of Contents

1	Introduction.....	5
2	Preface.....	5
3	General	5
4	Point of Interconnection.....	6
5	Cost Summary	6
6	Transmission Owner Scope of Work	7
7	Schedule.....	7
8	Transmission Owner Analysis.....	8
8.1	Power Flow Analysis	8
9	Interconnection Customer Requirements.....	8
9.1	System Protection.....	8
9.2	Compliance Issues and Interconnection Customer Requirements	8
9.3	Power Factor Requirements.....	9
10	Revenue Metering and SCADA Requirements	9
10.1	PJM Requirements	9
10.2	Interconnected Transmission Owner Requirements.....	9
11	Summer Peak - Load Flow Analysis	9
11.1	Generation Deliverability	10
11.2	Multiple Facility Contingency	10
11.3	Contribution to Previously Identified Overloads.....	10
11.4	Potential Congestion due to Local Energy Deliverability.....	12
11.5	System Reinforcements - Summer Peak Load Flow - Primary POI.....	16
11.6	Flow Gate Details.....	22
11.6.1	Index 1	23
11.6.2	Index 2	24
11.6.3	Index 3	25
11.6.4	Index 4	27
11.6.5	Index 5	31
11.6.6	Index 6	34
11.6.7	Index 7	37
11.6.8	Index 8	40

11.6.9	Index 9	45
11.6.10	Index 10.....	49
11.6.11	Index 11.....	54
11.6.12	Index 12.....	60
11.6.13	Index 13.....	65
11.6.14	Index 14.....	68
11.6.15	Index 15.....	72
11.6.16	Index 16.....	77
11.6.17	Index 17.....	80
11.6.18	Index 18.....	83
11.6.19	Index 19.....	86
11.6.20	Index 20.....	89
11.6.21	Index 21.....	92
11.6.22	Index 22.....	95
11.6.23	Index 23.....	99
11.6.24	Index 24.....	102
11.6.25	Index 25.....	104
11.6.26	Index 26.....	106
11.6.27	Index 27.....	109
11.6.28	Index 28.....	111
11.6.29	Index 29.....	114
11.6.30	Index 30.....	116
11.6.31	Index 31.....	119
11.6.32	Index 32.....	122
11.6.33	Index 33.....	124
11.6.34	Index 34.....	127
11.6.35	Index 35.....	131
11.6.36	Index 36.....	134
11.7	Queue Dependencies	137
11.8	Contingency Descriptions.....	141
12	Short Circuit Analysis.....	147
13	Affected Systems	147
13.1	TVA.....	147

13.2 Duke Energy Progress.....	147
Attachment 1: One Line Diagram.....	148

1 Introduction

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

2 Preface

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

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

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

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

3 General

The Interconnection Customer (IC), has proposed a Storage generating facility located in Edgecombe County, North Carolina. The installed facilities will have a total capability of 151.2 MW with 60.5 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is December 02, 2022. This study does not imply a TO commitment to this in-service date.

Queue Number	AF2-214
Project Name	HEARTSEASE DP-ANACONDA 115 KV
State	North Carolina
County	Edgecombe
Transmission Owner	Dominion
MFO	151.2
MWE	151.2
MWC	60.5
Fuel	Storage
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

AF2-214 will interconnect with the Dominion transmission system. The primary POI is the Harts Mill 115 kV substation (being built for AB1-081) which is single line tap between Heartsease DP 115 kV substation and Anaconda 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 AF2-214.

5 Cost Summary

The AF2-214 project will utilize the interconnection facilities being developed under the AB1-081 Harts Mill project.

The AF2-214 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$ 0
Total System Network Upgrade Costs	\$ 995,698,000
Total Costs	\$ 995,698,000

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 AF2-214 was evaluated as a 60.5 MW Capacity (151.2 MW Energy) injection at the Harts Mill 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.

Note that the ITO findings were made from a conceptual review of this project and 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.

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 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 AF2-214 was evaluated as a 151.2 MW (Capacity 60.5 MW) injection at the Harts Mill 115 kV substation in the Dominion area. Project AF2-214 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-214 was studied with a commercial probability of 53%. Potential network impacts were as follows:

11.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
97339665	314556	3BENSON	115.0	DVP	313844	3HATHAWAY	115.0	DVP	1	Base Case	single	246.279998779	79.45	104.01	DC	60.48
97339657	924150	AB2-059 TAP	115.0	DVP	314556	3BENSON	115.0	DVP	1	Base Case	single	246.279998779	82.34	106.89	DC	60.48

11.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
97340518	313844	3HATHAWAY	115.0	DVP	314554	3BTLEBR O	115.0	DVP	1	DVP_P7 -1: LN 2058-2181	tower	301.0	94.03	122.93	DC	86.99

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
95791627	242631	05EDAN1	138.0	AEP	242620	05DANVL2	138.0	AEP	1	AEP_P4_#11112_0 SJ.FERR 765_A1	breaker	402.0	111.52	112.74	DC	10.88
95791629	242631	05EDAN1	138.0	AEP	242620	05DANVL2	138.0	AEP	1	AEP_P4_#11111_0 SJ.FERR 765_B1	breaker	402.0	105.41	106.66	DC	11.15
96925230	313845	6HATHAWAY	230.0	DVP	304222	6ROCKYMT2 30T	230.0	CPL E	1	DVP_P1-2: LN 2181	single	478.0	103.9	107.33	DC	16.39
98021399	313845	6HATHAWAY	230.0	DVP	314591	6NASH	230.0	DVP	1	DVP_P1-2: LN 2058	single	449.320007324	115.25	117.79	DC	11.4
97771249	313851	6ECITYDP2	230.0	DVP	314638	6ELIZ CT	230.0	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	145.58	146.09	DC	13.58
97771210	314282	6CARSON	230.0	DVP	314285	6CHRL249	230.0	DVP	1	DVP_P4-2: 562T563	breaker	684.0	170.9	171.71	DC	12.05
97771399	314282	6CARSON	230.0	DVP	314331	6POE	230.0	DVP	1	DVP_P4-2: 562T563	breaker	830.0	114.64	115.19	DC	10.22
97771220	314285	6CHRL249	230.0	DVP	314316	6LOCKS	230.0	DVP	1	DVP_P4-2: 562T563	breaker	684.0	167.82	168.62	DC	12.05
97771259	314287	6CHESTFB	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P4-2: 562T563	breaker	812.0	143.78	144.28	DC	9.09
97771269	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P4-2: 562T563	breaker	541.0	142.62	143.38	DC	9.17
97771270	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P4-2: 24972-4	breaker	541.0	135.29	136.53	DC	14.8
97771271	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P4-5: L722	breaker	541.0	122.6	123.38	DC	9.38
97771324	314301	6HARR205	230.0	DVP	314346	6TYLER	230.0	DVP	1	DVP_P4-2: 562T563	breaker	541.0	125.36	126.15	DC	9.54
97771279	314316	6LOCKS	230.0	DVP	314301	6HARR205	230.0	DVP	1	DVP_P4-2: 562T563	breaker	541.0	140.67	141.46	DC	9.54
97771264	314331	6POE	230.0	DVP	314299	6HARROWG	230.0	DVP	1	DVP_P4-2: 562T563	breaker	541.0	142.64	143.4	DC	9.17

ID	FROM BUS#	FROM BUS	kV	FROM BUS ARE A	TO BUS#	TO BUS	kV	TO BUS ARE A	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPA CT
97771 265	3143 31	6POE	230 .0	DVP	3142 99	6HARROWG	230 .0	DV P	1	DVP_P4-2: 24972-4	break er	541.0	135.31	136.55	DC	14.8
97771 266	3143 31	6POE	230 .0	DVP	3142 99	6HARROWG	230 .0	DV P	1	DVP_P4-5: L722	break er	541.0	122.62	123.4	DC	9.38
98021 388	3144 35	6SAPONY	230 .0	DVP	3142 82	6CARSON	230 .0	DV P	1	DVP_P1-2: LN 246	single	678.67999 2676	126.44	127.99	DC	10.79
98021 390	3144 35	6SAPONY	230 .0	DVP	3142 82	6CARSON	230 .0	DV P	1	DVP_P1-2: LN 2012-B	single	678.67999 2676	107.67	108.8	DC	10.06
98021 393	3144 35	6SAPONY	230 .0	DVP	3142 82	6CARSON	230 .0	DV P	1	Base Case	single	678.67999 2676	101.69	102.75	DC	9.18
96925 060	3145 54	3BTLEBR O	115 .0	DVP	3042 23	3ROCKYMT1 15T	115 .0	CPL E	1	DVP_P4-2: 2058T2167	break er	93.0	227.52	284.51	DC	53.01
96925 167	3145 54	3BTLEBR O	115 .0	DVP	3042 23	3ROCKYMT1 15T	115 .0	CPL E	1	DVP_P1-2: LN 2058	single	93.0	160.36	182.74	DC	20.81
96925 168	3145 54	3BTLEBR O	115 .0	DVP	3042 23	3ROCKYMT1 15T	115 .0	CPL E	1	DVP_P1-3: 6HATHAWAY-TX#1	single	93.0	148.07	169.77	DC	20.18
96925 172	3145 54	3BTLEBR O	115 .0	DVP	3042 23	3ROCKYMT1 15T	115 .0	CPL E	1	Base Case	single	93.0	116.34	131.93	DC	14.5
96925 597	3145 54	3BTLEBR O	115 .0	DVP	3042 23	3ROCKYMT1 15T	115 .0	CPL E	1	DVP_P7-1: LN 2058-2181	towe r	93.0	452.72	519.45	DC	62.03
97771 302	3145 61	6CAROLN A	230 .0	DVP	3145 83	6LAKEVEW	230 .0	DV P	1	DVP_P4-2: 218T2160	break er	459.0	126.56	128.21	DC	14.31
97771 461	3145 61	6CAROLN A	230 .0	DVP	3145 99	6ROA VAL	230 .0	DV P	1	DVP_P4-2: 23872	break er	671.0	100.78	101.76	DC	14.42
97771 462	3145 61	6CAROLN A	230 .0	DVP	3145 99	6ROA VAL	230 .0	DV P	1	DVP_P4-2: 238T2002	break er	671.0	100.5	101.47	DC	14.4
98021 438	3145 63	6CLUBHS E	230 .0	DVP	9404 80	AE2-033 TAP	230 .0	DV P	1	DVP_P1-2: LN 246	single	678.67999 2676	111.53	113.13	DC	10.79
98021 178	3145 69	6EARLEYS	230 .0	DVP	3145 75	6NUCO TP	230 .0	DV P	1	DVP_P1-2: LN 2092	single	571.52001 9531	165.09	166.7	DC	9.28
98021 179	3145 69	6EARLEYS	230 .0	DVP	3145 75	6NUCO TP	230 .0	DV P	1	DVP_P1-2: LN 2131	single	571.52001 9531	164.76	166.37	DC	9.28
98021 184	3145 69	6EARLEYS	230 .0	DVP	3145 75	6NUCO TP	230 .0	DV P	1	Base Case	single	571.52001 9531	103.84	105.14	DC	7.44
96925 602	3145 74	6EVERET S	230 .0	DVP	3044 51	6GREENVILE T	230 .0	CPL E	1	DVP_P7-1: LN 2058-2181	towe r	478.0	183.14	184.22	DC	11.41
98021 190	3145 75	6NUCO TP	230 .0	DVP	9577 90	AF2-073 TAP	230 .0	DV P	1	DVP_P1-2: LN 2092	single	571.52001 9531	158.68	160.3	DC	9.28
98021 191	3145 75	6NUCO TP	230 .0	DVP	9577 90	AF2-073 TAP	230 .0	DV P	1	DVP_P1-2: LN 2131	single	571.52001 9531	158.37	159.99	DC	9.28
97771 225	3145 83	6LAKEVE W	230 .0	DVP	3145 61	6CAROLNA	230 .0	DV P	1	DVP_P4-2: 23872	break er	459.0	156.63	160.51	DC	18.02
98021 350	3145 83	6LAKEVE W	230 .0	DVP	9245 10	AB2-100 TAP	230 .0	DV P	1	DVP_P1-2: LN 246	single	375.05999 7559	141.03	143.71	DC	10.04
98021 351	3145 83	6LAKEVE W	230 .0	DVP	9245 10	AB2-100 TAP	230 .0	DV P	1	314572 3EMPORIA 115 925170 AB2-174 TAP 115 1	single	375.05999 7559	131.45	133.93	DC	9.3
98021 355	3145 83	6LAKEVE W	230 .0	DVP	9245 10	AB2-100 TAP	230 .0	DV P	1	Base Case	single	375.05999 7559	110.19	112.47	DC	8.53
98021 361	3145 83	6LAKEVE W	230 .0	DVP	3145 61	6CAROLNA	230 .0	DV P	1	314435 6SAPONY 230 940480 AE2-033 TAP 230 1	single	375.05999 7559	144.92	146.84	DC	7.2
98021 362	3145 83	6LAKEVE W	230 .0	DVP	3145 61	6CAROLNA	230 .0	DV P	1	DVP_P1-2: LN 238-A	single	375.05999 7559	144.87	146.79	DC	7.2
96925 237	3145 91	6NASH	230 .0	DVP	3042 26	6PA-RMOUNT#4	230 .0	CPL E	1	DVP_P1-2: LN 2058	single	478.0	103.02	105.41	DC	11.4
97339 356	3145 96	3POPLR C	115 .0	DVP	3145 73	3EVERETS	115 .0	DV P	1	DVP_P4-2: 246T2034	break er	349.0	159.38	160.59	DC	8.01
97771 463	3145 99	6ROA VAL	230 .0	DVP	3142 66	6NORTHAM PTON	230 .0	DV P	1	DVP_P4-2: 23872	break er	671.0	100.75	101.73	DC	14.42
97771 464	3145 99	6ROA VAL	230 .0	DVP	3142 66	6NORTHAM PTON	230 .0	DV P	1	DVP_P4-2: 238T2002	break er	671.0	100.45	101.43	DC	14.4
97339 351	3146 14	3TRWBR DG2	115 .0	DVP	3145 96	3POPLR C	115 .0	DV P	1	DVP_P4-2: 246T2034	break er	350.0	160.55	161.76	DC	8.01
97771 244	3146 39	6TANGLE W	230 .0	DVP	3138 51	6ECITYDP2	230 .0	DV P	1	DVP_P4-2: 246T247	break er	1204.0	147.56	148.07	DC	13.58

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADING %	POST PROJE CT LOADING %	AC DC	MW IMPACT
97771 239	3146 51	6WINFALL	230 .0	DVP	3146 39	6TANGLEW	230 .0	DVP	1	DVP_P4-2: 246T247	breaker	1163.0	155.25	155.78	DC	13.59
98021 244	9245 10	AB2-100 TAP	230 .0	DVP	3145 63	6CLUBHSE	230 .0	DVP	1	DVP_P1-2: LN 246	single	375.05999 7559	157.4	160.07	DC	10.02
98021 245	9245 10	AB2-100 TAP	230 .0	DVP	3145 63	6CLUBHSE	230 .0	DVP	1	314572 3EMPORIA 115 925170 AB2-174 TAP 115 1	single	375.05999 7559	147.67	150.14	DC	9.28
98021 249	9245 10	AB2-100 TAP	230 .0	DVP	3145 63	6CLUBHSE	230 .0	DVP	1	Base Case	single	375.05999 7559	126.5	128.77	DC	8.51
97771 453	9364 00	AD2-051 TAP	230 .0	DVP	3145 69	6EARLEYS	230 .0	DVP	1	DVP_P4-2: 23872	breaker	699.0	104.35	105.29	DC	14.42
97771 454	9364 00	AD2-051 TAP	230 .0	DVP	3145 69	6EARLEYS	230 .0	DVP	1	DVP_P4-2: 238T2002	breaker	699.0	104.07	105.0	DC	14.4
97771 319	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	DVP_P4-2: 201262	breaker	830.0	124.99	126.37	DC	25.41
97771 320	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	DVP_P4-2: 2012T2014	breaker	830.0	123.74	125.16	DC	25.98
98021 512	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	DVP_P1-2: LN 2012-B	single	678.67999 2676	109.93	111.06	DC	10.07
98021 513	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	DVP_P1-2: LN 40-B	single	678.67999 2676	106.26	107.66	DC	9.5
98021 516	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	Base Case	single	678.67999 2676	103.97	105.02	DC	9.18
98564 506	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	DVP_P7-1: LN 2058-2181	tower	830.0	128.86	130.37	DC	27.65
98564 507	9404 80	AE2-033 TAP	230 .0	DVP	3144 35	6SAPONY	230 .0	DVP	1	DVP_P7-1: LN 56-2012-B	tower	830.0	126.83	128.26	DC	26.23
98021 166	9577 90	AF2-073 TAP	230 .0	DVP	9578 20	AF2-076 TAP	230 .0	DVP	1	DVP_P1-2: LN 2092	single	571.52001 9531	169.21	170.83	DC	9.28
98021 167	9577 90	AF2-073 TAP	230 .0	DVP	9578 20	AF2-076 TAP	230 .0	DVP	1	DVP_P1-2: LN 2131	single	571.52001 9531	168.24	169.86	DC	9.28
98021 172	9577 90	AF2-073 TAP	230 .0	DVP	9578 20	AF2-076 TAP	230 .0	DVP	1	Base Case	single	571.52001 9531	106.45	107.75	DC	7.44
98021 154	9578 20	AF2-076 TAP	230 .0	DVP	3145 37	6SUFFOLK	230 .0	DVP	1	DVP_P1-2: LN 2092	single	571.52001 9531	174.0	175.62	DC	9.28
98021 155	9578 20	AF2-076 TAP	230 .0	DVP	3145 37	6SUFFOLK	230 .0	DVP	1	DVP_P1-2: LN 2131	single	571.52001 9531	173.3	174.92	DC	9.28
98021 160	9578 20	AF2-076 TAP	230 .0	DVP	3145 37	6SUFFOLK	230 .0	DVP	1	Base Case	single	571.52001 9531	111.01	112.3	DC	7.44

11.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADING %	POST PROJE CT LOADING %	AC DC	MW IMPACT
957918 25	2426 20	05DANVL2	138.0	AEP	2426 31	05EDAN 1	138.0	AEP	1	Base Case	operation	275.0	121.61	123.33	DC	8.89

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADING %	POST PROJE CT LOADING %	AC/DC	MW IMPACT
95791899	242631	05EDAN 1	138.0	AEP	242620	05DANVL2	138.0	AEP	1	AEP_P 1-2_#1377	operation	402.0	105.36	106.61	DC	11.15
98021757	313701	6CHINQUAPI N	230.0	DVP	314609	6TARBORO	230.0	DVP	1	DVP_P 1-2: LN 218	operation	441.799987793	117.31	121.51	DC	18.54
98021202	313714	6PERQUIMAN S	230.0	DVP	314662	6S HERTFORD	230.0	DVP	1	Base Case	operation	733.200012207	207.45	208.08	DC	10.38
97339732	313719	3CHESTNUT	115.0	DVP	314623	3WITAKRS	115.0	DVP	1	DVP_P 1-2: LN 2056-A	operation	165.440002441	133.22	147.66	DC	23.88
97339737	313719	3CHESTNUT	115.0	DVP	314623	3WITAKRS	115.0	DVP	1	Base Case	operation	165.440002441	100.37	112.06	DC	19.33
96925226	313845	6HATHAWAY	230.0	DVP	304222	6ROCKYMT23 OT	230.0	CPL E	1	DVP_P 1-2: LN 2181	operation	478.0	140.29	148.87	DC	40.97
98021394	313845	6HATHAWAY	230.0	DVP	314591	6NASH	230.0	DVP	1	DVP_P 1-2: LN 2058	operation	449.320007324	156.03	162.37	DC	28.49
97339690	313854	3CONSLDL	115.0	DVP	314554	3BTLEBRO	115.0	DVP	1	DVP_P 1-2: LN 2056-A	operation	165.440002441	138.73	153.18	DC	23.89
97339695	313854	3CONSLDL	115.0	DVP	314554	3BTLEBRO	115.0	DVP	1	Base Case	operation	165.440002441	110.53	122.22	DC	19.34
97339839	313858	3SO JUSTICE	115.0	DVP	314577	3COX DP	115.0	DVP	1	DVP_P 1-2: LN 2056-A	operation	165.440002441	103.12	117.54	DC	23.84
98021289	313885	6WALBMRL	230.0	DVP	313714	6PERQUIMAN S	230.0	DVP	1	Base Case	operation	733.200012207	177.32	177.96	DC	10.38
98021263	314203	6MACKEYS	230.0	DVP	314637	6EDENTON	230.0	DVP	1	Base Case	operation	731.320007324	181.59	182.23	DC	10.38
98021283	314203	6MACKEYS	230.0	DVP	314594	6PLYMOTH	230.0	DVP	1	Base Case	operation	789.599975586	107.55	108.25	DC	10.43
97339897	314205	3HEARTS	115.0	DVP	925590	AC1-034 TAP	115.0	DVP	1	Base Case	operation	246.279998779	47.43	108.82	DC	151.2
98021802	314266	6NORTHAMP TON	230.0	DVP	936400	AD2-051 TAP	230.0	DVP	1	314435 6SAPO NY 230 940480 AE2-033 TAP 230 1	operation	571.520019531	117.5	118.64	DC	14.39
98021422	314282	6CARSON	230.0	DVP	314285	6CHRL249	230.0	DVP	1	DVP_P 1-2: LN 563	operation	559.299987793	166.56	167.45	DC	10.97
98021795	314282	6CARSON	230.0	DVP	314331	6POE	230.0	DVP	1	DVP_P 1-2: LN 249	operation	678.679992676	119.57	120.26	DC	10.35
98021444	314285	6CHRL249	230.0	DVP	314316	6LOCKS	230.0	DVP	1	DVP_P 1-2: LN 563	operation	559.299987793	162.79	163.68	DC	10.97
98021637	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P 1-2: LN 563	operation	441.799987793	143.7	144.56	DC	8.45
98021657	314316	6LOCKS	230.0	DVP	314301	6HARR205	230.0	DVP	1	DVP_P 1-2: LN 563	operation	441.799987793	136.15	137.04	DC	8.72
98021632	314331	6POE	230.0	DVP	314299	6HARROWG	230.0	DVP	1	DVP_P 1-2: LN 563	operation	441.799987793	143.73	144.59	DC	8.45
98021382	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	DVP_P 1-2: LN 246	operation	678.679992676	179.95	181.75	DC	26.97
98021387	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	Base Case	operation	678.679992676	142.06	143.6	DC	22.93

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPA CT
969251 62	3145 54	3BTLEBRO	115.0	DVP	3042 23	3ROCKYMT11 5T	115.0	CPL E	1	DVP_P 1-2: LN 2058	operati on	93.0	222.28	278.22	DC	52.01
969251 66	3145 54	3BTLEBRO	115.0	DVP	3042 23	3ROCKYMT11 5T	115.0	CPL E	1	Base Case	operati on	93.0	161.42	200.38	DC	36.24
973396 60	3145 56	3BENSON	115.0	DVP	3138 44	3HATHAWAY	115.0	DVP	1	Base Case	operati on	246.279998 779	120.96	182.33	DC	151.1 5
980217 60	3145 61	6CAROLNA	230.0	DVP	3145 99	6ROA VAL	230.0	DVP	1	314435 6SAPO NY 230 940480 AE2-033 TAP 230 1	operati on	548.020019 531	122.94	124.13	DC	14.39
980214 32	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	160.94	162.74	DC	26.98
980214 37	3145 63	6CLUBHSE	230.0	DVP	9404 80	AE2-033 TAP	230.0	DVP	1	Base Case	operati on	678.679992 676	124.61	126.14	DC	22.94
980214 99	3145 64	6EDGECOM	230.0	DVP	3138 45	6HATHAWAY	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987 793	121.01	125.21	DC	18.54
973397 58	3145 67	3DUNBR	115.0	DVP	9241 50	AB2-059 TAP	115.0	DVP	1	Base Case	operati on	246.279998 779	83.32	144.71	DC	151.2
980211 73	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	274.34	276.17	DC	23.2
980211 80	3145 69	6EARLEYS	230.0	DVP	3145 75	6NUCO TP	230.0	DVP	1	Base Case	operati on	571.520019 531	145.87	147.34	DC	18.59
980211 85	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	267.93	269.76	DC	23.2
980211 92	3145 75	6NUCO TP	230.0	DVP	9577 90	AF2-073 TAP	230.0	DVP	1	Base Case	operati on	571.520019 531	139.46	140.93	DC	18.59
973398 70	3145 77	3COX DP	115.0	DVP	3137 19	3CHESTNUT	115.0	DVP	1	DVP_P 1-2: LN 2056-A	operati on	165.440002 441	96.35	110.77	DC	23.84
973399 12	3145 78	3HORNRTN	115.0	DVP	3145 59	3CAROLNA	115.0	DVP	1	DVP_P 1-2: LN 126	operati on	165.440002 441	93.35	102.83	DC	15.7
980216 64	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	132.5	135.16	DC	22.27
980213 45	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	194.21	200.92	DC	25.1
980213 49	3145 83	6LAKEVEW	230.0	DVP	9245 10	AB2-100 TAP	230.0	DVP	1	Base Case	operati on	375.059997 559	151.95	157.65	DC	21.33
980213 56	3145 83	6LAKEVEW	230.0	DVP	3145 61	6CAROLNA	230.0	DVP	1	DVP_P 1-2: LN 238-B	operati on	375.059997 559	190.79	196.39	DC	20.99
980217 78	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	112.54	117.55	DC	22.14
969252 32	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	141.35	147.32	DC	28.49
980213 13	3145 94	6PLYMOTH	230.0	DVP	3146 16	6TRWBRDG	230.0	DVP	1	Base Case	operati on	789.599975 586	105.26	105.96	DC	10.43
980218 95	3145 94	6PLYMOTH	230.0	DVP	3142 03	6MACKEYS	230.0	DVP	1	DVP_P 1-2: LN 246	operati on	789.599975 586	99.42	100.34	DC	16.01

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPA CT
98021766	314599	6ROA VAL	230.0	DVP	314266	6NORTHAMP TON	230.0	DVP	1	3144356SAPO NY 230 940480 AE2-033 TAP 230 1	operati on	548.020019 531	122.9	124.09	DC	14.39
98021831	314609	6TARBORO	230.0	DVP	314610	6TOTDP4	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987 793	107.51	111.71	DC	18.54
98021839	314610	6TOTDP4	230.0	DVP	314564	6EDGECOM	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987 793	105.99	110.19	DC	18.54
98021890	314616	6TRWBRDG	230.0	DVP	314594	6PLYMOTH	230.0	DVP	1	DVP_P 1-2: LN 246	operati on	789.599975 586	101.72	102.63	DC	16.01
97339681	314623	3WITAKRS	115.0	DVP	313854	3CONSLDL	115.0	DVP	1	DVP_P 1-2: LN 2056-A	operati on	165.440002 441	138.79	153.24	DC	23.89
97339686	314623	3WITAKRS	115.0	DVP	313854	3CONSLDL	115.0	DVP	1	Base Case	operati on	165.440002 441	110.53	122.22	DC	19.34
97339922	314628	3DARLINGT DP	115.0	DVP	314598	3ROAN DP	115.0	DVP	1	DVP_P 1-2: LN 126	operati on	165.440002 441	91.96	101.44	DC	15.7
98021301	314637	6EDENTON	230.0	DVP	313885	6WALBMRL	230.0	DVP	1	Base Case	operati on	733.200012 207	177.32	177.96	DC	10.38
97339652	924150	AB2-059 TAP	115.0	DVP	314556	3BENSON	115.0	DVP	1	Base Case	operati on	246.279998 779	123.84	185.21	DC	151.15
98021239	924510	AB2-100 TAP	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	DVP_P 1-2: LN 246	operati on	375.059997 559	216.24	222.94	DC	25.04
98021243	924510	AB2-100 TAP	230.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	operati on	375.059997 559	172.48	178.17	DC	21.28
97339882	925170	AB2-174 TAP	115.0	DVP	314572	3EMPORIA	115.0	DVP	1	DVP_P 1-2: LN 5254	operati on	269.779998 779	111.27	112.7	DC	8.54
97339754	925590	AC1-034 TAP	115.0	DVP	314567	3DUNBR	115.0	DVP	1	Base Case	operati on	246.279998 779	85.19	146.58	DC	151.2
98021860	927020	AC1-189 TAP	230.0	DVP	313701	6CHINQUAPI N	230.0	DVP	1	DVP_P 1-2: LN 218	operati on	441.799987 793	102.55	106.74	DC	18.5
97339907	927140	AC1-208 TAP	115.0	DVP	314628	3DARLINGT DP	115.0	DVP	1	DVP_P 1-2: LN 126	operati on	165.440002 441	95.46	104.95	DC	15.7
98021548	934330	AD1-057 TAP	230.0	DVP	313845	6HATHAWAY	230.0	DVP	1	DVP_P 1-2: LN 238-A	operati on	441.799987 793	145.41	148.08	DC	22.27
98021732	936400	AD2-051 TAP	230.0	DVP	314569	6EARLEYS	230.0	DVP	1	3144356SAPO NY 230 940480 AE2-033 TAP 230 1	operati on	571.520019 531	127.17	128.31	DC	14.39
98021505	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P 1-2: LN 2012-B	operati on	678.679992 676	150.12	151.8	DC	25.16
98021510	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	Base Case	operati on	678.679992 676	143.66	145.19	DC	22.94
98021161	957790	AF2-073 TAP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	DVP_P 1-2: LN 2092	operati on	571.520019 531	283.88	285.71	DC	23.2
98021168	957790	AF2-073 TAP	230.0	DVP	957820	AF2-076 TAP	230.0	DVP	1	Base Case	operati on	571.520019 531	153.47	154.94	DC	18.59

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADING %	POST PROJE CT LOADING %	AC DC	MW IMPACT
98021149	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-2: LN 2092	operation	571.520019531	291.69	293.52	DC	23.2
98021156	957820	AF2-076 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	Base Case	operation	571.520019531	161.08	162.55	DC	18.59

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
95791627,95791629	4	05EDAN 1 138.0 kV - 05DANVL2 138.0 kV Ckt 1	<u>DVP</u> n6124 (518) : PJM Network Upgrade n6124. Increasing the Danville - East Danville 138 kV circuit summer rating to 572/572/572 MVA will still require us to rebuild the line. Project Type : FAC Cost : \$9,000,000 Time Estimate : Months	\$9,000,000
98021184,98021178,98021179	21	6EARLEYS 230.0 kV - 6NUCO TP 230.0 kV Ckt 1	<u>DVP</u> dom-017 (1102) : 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
97771244	30	6TANGLEW 230.0 kV - 6ECITYDP2 230.0 kV Ckt 1	<u>DVP</u> dom-200 (1318) : 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 dom-256 (1374) : 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	\$54,325,000
97771249	7	6ECITYDP2 230.0 kV - 6ELIZ CT 230.0 kV Ckt 1		
97771239	31	6WINFALL 230.0 kV - 6TANGLEW 230.0 kV Ckt 1		

ID	Idx	Facility	Upgrade Description	Cost
98021160,98021154,98021155	36	AF2-076 TAP 230.0 kV - 6SUFFOLK 230.0 kV Ckt 1	<u>DVP</u> dom-243 (1361) : Rebuild 2.8 miles of 230 kV Line 246 from AF2-076 Tap to Suffolk with 2-768 ACS. Project Type : FAC Cost : \$4,200,000 Time Estimate : 36-40 Months	\$4,200,000
97771319,98564506,98021512,98021513,98021516,97771320,98564507	34	AE2-033 TAP 230.0 kV - 6SAPONY 230.0 kV Ckt 1	<u>DVP</u> dom-050 (1135) : 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
98021393,98021390,98021388	16	6SAPONY 230.0 kV - 6CARSON 230.0 kV Ckt 1	<u>DVP</u> dom-051 (1136) : 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
97771210	8	6CARSON 230.0 kV - 6CHRL249 230.0 kV Ckt 1	<u>DVP</u> dom-078 (1163) : 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
97771220	10	6CHRL249 230.0 kV - 6LOCKS 230.0 kV Ckt 1	<u>DVP</u> dom-079 (1164) : 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
97771462,97771461	19	6CAROLNA 230.0 kV - 6ROA VAL 230.0 kV Ckt 1	<u>DVP</u> dom-107 (1192) : Rebuild 4.06 miles of 230 kV Line 2060 from Carolina to Roanoke Valley with 2-636 ACSR. Project Type : FAC Cost : \$10,150,000 Time Estimate : 30-36 Months	\$10,150,000

ID	Idx	Facility	Upgrade Description	Cost
97339351	29	3TRWBRDG2 115.0 kV - 3POPLR C 115.0 kV Ckt 1	<u>DVP</u> dom-254 (1372) : Reconductor 7.4 miles of 115 kV Line 25 from Trowbridge to Poplar Chapel with 2-768.2 ACSS 250C. Upgrade Breaker Lead, Wavetrap, Relay (Secondary CT) and Line Lead at Trowbridge 115 kV. Upgrade Line Lead at Poplar Chapel 115 kV. Project Type : FAC Cost : \$4,710,000 Time Estimate : 36-40 Months	\$4,710,000
98021249,9802 1244,98021245	32	AB2-100 TAP 230.0 kV - 6CLUBHSE 230.0 kV Ckt 1	<u>DVP</u> dom-048 (1133) : 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
96925230	5	6HATHAWAY 230.0 kV - 6ROCKYMT230T 230.0 kV Ckt 1	<u>CPLE</u> NonPJMArea (939) : The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase. <u>DVP</u> dom-003 (1088) : For DEV portion, rebuild 4.13 miles of 230 kV Line 2058 from Hathaway to Rocky Mountain with 2-636 ACSR. Project Type : FAC Cost : \$10,325,000 Time Estimate : 30-36 Months	\$10,325,000
97339356	27	3POPLR C 115.0 kV - 3EVERETS 115.0 kV Ckt 1	<u>DVP</u> dom-175 (1245) : Reconductor 13.4 miles of 115 kV Line 25 from Poplar Chapel to Everetts with 2-636 ACSR. Replace Wavetrap, relay, circuit breaker switch, and circuit breaker lead at Everetts. Project Type : FAC Cost : \$8,510,000 Time Estimate : 30-36 Months	\$8,510,000
96925602	22	6EVERETS 230.0 kV - 6GREENVILE T 230.0 kV Ckt 1	<u>CPLE</u> NonPJMArea (939) : The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase. <u>DVP</u> dom-173 (1243) : 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

ID	Idx	Facility	Upgrade Description	Cost
96925237	26	6NASH 230.0 kV - 6PA- RMOUNT#4 230.0 kV Ckt 1	<u>CPLE</u> NonPJMArea (939) : The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase. <u>DVP</u> dom-005 (1090) : For DEV portion, rebuild 3.3 miles of 230 kV Line 2181 from Nash to Parmount with 2-636 ACSR. Project Type : FAC Cost : \$8,250,000 Time Estimate : 30-36 Months	\$8,250,000
97339665	1	3BENSON 115.0 kV - 3HATHAWAY 115.0 kV Ckt 1	<u>DVP</u> dom-219 (1337) : Reconductor 2.59 miles of 115 kV Line 1032 from Benson to Hathaway with 768 ACSR. Project Type : FAC Cost : \$1,554,000 Time Estimate : 30-36 Months	\$1,554,000
96925060,96925597,96925167,96925168,96925172	17	3BTLEBRO 115.0 kV - 3ROCKYMT115T 115.0 kV Ckt 1	<u>CPLE</u> NonPJMArea (939) : The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase. <u>DVP</u> dom-007 (1092) : Build new 500 kV line between Everetts and Suffolk. Project Type : CON Cost : \$570,000,000 Time Estimate : 48-60 Months	\$570,100,000
97340518	3	3HATHAWAY 115.0 kV - 3BTLEBRO 115.0 kV Ckt 1	n6118 (1277) : 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	
97771270,97771271,97771269	12	6HARROWG 230.0 kV - 6TYLER1 230.0 kV Ckt 1	<u>DVP</u> dom-036 (1121) : 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
97771265,97771264,97771266	15	6POE 230.0 kV - 6HARROWG 230.0 kV Ckt 1	<u>DVP</u> dom-037 (1122) : 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

ID	Idx	Facility	Upgrade Description	Cost
97771279	14	6LOCKS 230.0 kV - 6HARR205 230.0 kV Ckt 1	<u>DVP</u> dom-165 (1235) : 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
97771399	9	6CARSON 230.0 kV - 6POE 230.0 kV Ckt 1	<u>DVP</u> dom-120 (1205) : Rebuild 12.68 miles of 230 kV Line 2002 from Carson to Poe with 2-636 ACSR. Project Type : FAC Cost : \$31,700,000 Time Estimate : 30-36 Months	\$31,700,000
97771302	18	6CAROLNA 230.0 kV - 6LAKEVEW 230.0 kV Ckt 1	<u>DVP</u> dom-220 (1338) : 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
98021399	6	6HATHAWAY 230.0 kV - 6NASH 230.0 kV Ckt 1	<u>DVP</u> dom-143 (1214) : 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
97339657	2	AB2-059 TAP 115.0 kV - 3BENSON 115.0 kV Ckt 1	<u>DVP</u> dom-231 (1349) : Reconductor 3.7 miles of 115 kV line 1032 from AB2-059 Tap to Benson with 768 ACSS. Project Type : FAC Cost : \$2,220,000 Time Estimate : 30-36 Months	\$2,220,000
97771463,9777 1464	28	6ROA VAL 230.0 kV - 6NORTHAMPTO N 230.0 kV Ckt 1	<u>DVP</u> dom-106 (1191) : Rebuild 2.87 miles of 230 kV Line 2012 from Roanoke Valley to Northhampton with 2-636 ACSR. Project Type : FAC Cost : \$7,175,000 Time Estimate : 30-36 Months	\$7,175,000
97771324	13	6HARR205 230.0 kV - 6TYLER 230.0 kV Ckt 1	<u>DVP</u> dom-163 (1233) : Reconductor 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

ID	Idx	Facility	Upgrade Description	Cost
98021438	20	6CLUBHSE 230.0 kV - AE2-033 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-047 (1132) : 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
98021190,98021191	23	6NUCO TP 230.0 kV - AF2-073 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-222 (1340) : 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
97771259	11	6CHESTF B 230.0 kV - 6BASIN 230.0 kV Ckt 1	<u>DVP</u> dom-012 (1097) : 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
98021362,98021361,97771225	24	6LAKEVEW 230.0 kV - 6CAROLNA 230.0 kV Ckt 1	<u>DVP</u> dom-061 (1146) : Rebuild 1.37 miles of 230 kV Line 2141 from Lakeview to Carolina with 2-636 ACSR. Project Type : FAC Cost : \$1,781,000 Time Estimate : 30-36 Months	\$1,781,000
98021355,98021350,98021351	25	6LAKEVEW 230.0 kV - AB2-100 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-049 (1134) : 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
97771454,97771453	33	AD2-051 TAP 230.0 kV - 6EARLEYS 230.0 kV Ckt 1	<u>DVP</u> dom-236 (1354) : Rebuild 1.2 miles of 230 kV line 2012 from AD2-051 Tap to Earleys with 2-636 ACSR. Project Type : FAC Cost : \$1,800,000 Time Estimate : 30-36 Months	\$1,800,000
98021172,98021167,98021166	35	AF2-073 TAP 230.0 kV - AF2-076 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-242 (1360) : 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	\$995,698,000

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
97339665	314556	3BENSON	DVP	313844	3HATHAWAY	DVP	1	Base Case	single	246.28	79.45	104.01	DC	60.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
922922	AB1-081 C OP	55.9810	80/20	55.9810
924151	AB2-059 C OP	11.3807	80/20	11.3807
925591	AC1-034 C	42.7355	80/20	42.7355
940571	AE2-044 C	27.9905	80/20	27.9905
944141	AF1-082	17.9939	80/20	17.9939
959231	AF2-214 C	60.4794	80/20	60.4794
NEWTON	NEWTON	0.0365	Confirmed LTF	0.0365
FARMERCITY	FARMERCITY	0.0019	Confirmed LTF	0.0019
CALDERWOOD	CALDERWOOD	0.0169	Confirmed LTF	0.0169
NY	NY	0.0194	Confirmed LTF	0.0194
PRAIRIE	PRAIRIE	0.0878	Confirmed LTF	0.0878
CHEOAH	CHEOAH	0.0170	Confirmed LTF	0.0170
EDWARDS	EDWARDS	0.0119	Confirmed LTF	0.0119
TILTON	TILTON	0.0214	Confirmed LTF	0.0214
GIBSON	GIBSON	0.0186	Confirmed LTF	0.0186
BLUEG	BLUEG	0.0590	Confirmed LTF	0.0590
TRIMBLE	TRIMBLE	0.0189	Confirmed LTF	0.0189
CATAWBA	CATAWBA	0.0119	Confirmed LTF	0.0119

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
97339657	924150	AB2-059 TAP	DVP	314556	3BENSON	DVP	1	Base Case	single	246.28	82.34	106.89	DC	60.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
922922	AB1-081 C OP	55.9810	80/20	55.9810
924151	AB2-059 C OP	11.3807	80/20	11.3807
925591	AC1-034 C	42.7355	80/20	42.7355
940571	AE2-044 C	27.9905	80/20	27.9905
944141	AF1-082	17.9939	80/20	17.9939
959231	AF2-214 C	60.4794	80/20	60.4794
NEWTON	NEWTON	0.0365	Confirmed LTF	0.0365
FARMERCITY	FARMERCITY	0.0019	Confirmed LTF	0.0019
CALDERWOOD	CALDERWOOD	0.0169	Confirmed LTF	0.0169
NY	NY	0.0194	Confirmed LTF	0.0194
PRAIRIE	PRAIRIE	0.0878	Confirmed LTF	0.0878
CHEOAH	CHEOAH	0.0170	Confirmed LTF	0.0170
EDWARDS	EDWARDS	0.0119	Confirmed LTF	0.0119
TILTON	TILTON	0.0214	Confirmed LTF	0.0214
GIBSON	GIBSON	0.0186	Confirmed LTF	0.0186
BLUEG	BLUEG	0.0590	Confirmed LTF	0.0590
TRIMBLE	TRIMBLE	0.0189	Confirmed LTF	0.0189
CATAWBA	CATAWBA	0.0119	Confirmed LTF	0.0119

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
97340518	313844	3HATHAWAY	DVP	314554	3BTLEBRO	DVP	1	DVP_P7-1: LN 2058-2181	tower	301.0	94.03	122.93	DC	86.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315131	1EDGECEMA (Deactivation : 22/04/2019)	15.5075	50/50	15.5075
315132	1EDGECEMB (Deactivation : 22/04/2019)	15.5075	50/50	15.5075
315136	1ROSEMG1	1.4855	50/50	1.4855
315137	1ROSEMS1	0.9212	50/50	0.9212
315138	1ROSEMG2	0.6962	50/50	0.6962
315601	1CONETOE2SOL	1.6496	50/50	1.6496
917512	Z2-088 E OP1	4.0985	50/50	4.0985
918532	AA1-067 E	0.2783	Adder	0.33
922922	AB1-081 C OP	32.2196	50/50	32.2196
922923	AB1-081 E OP	13.8084	50/50	13.8084
923262	AB1-132 C OP (Suspended)	6.4581	Adder	7.6
923263	AB1-132 E OP (Suspended)	2.7678	Adder	3.26
924151	AB2-059 C OP	6.5501	50/50	6.5501
924152	AB2-059 E OP	19.5619	50/50	19.5619
925591	AC1-034 C	24.5962	50/50	24.5962
925592	AC1-034 E	18.5550	50/50	18.5550
926071	AC1-086 C	9.5104	Adder	11.19
926072	AC1-086 E	4.3285	Adder	5.09
926211	AC1-099 C	-1.4621	Adder	-1.72
927021	AC1-189 C	7.4141	50/50	7.4141
927022	AC1-189 E	3.6931	50/50	3.6931
934331	AD1-057 C O1	11.7322	50/50	11.7322
934332	AD1-057 E O1	6.2585	50/50	6.2585
940571	AE2-044 C	16.1098	50/50	16.1098
940572	AE2-044 E	6.9042	50/50	6.9042
944141	AF1-082	10.3563	50/50	10.3563
957861	AF2-080 C	6.7337	50/50	6.7337
957862	AF2-080 E	2.9851	50/50	2.9851
959231	AF2-214 C	34.8087	50/50	34.8087
959232	AF2-214 E	52.1842	50/50	52.1842
960122	AF2-303 E O1	20.0527	50/50	20.0527
960331	AF2-324 C O1	13.0477	50/50	13.0477
960332	AF2-324 E O1	7.0051	50/50	7.0051
960353	AF2-326 BAT	3.8947	50/50	3.8947
NEWTON	NEWTON	0.5426	Confirmed LTF	0.5426
FARMERCITY	FARMERCITY	0.0310	Confirmed LTF	0.0310
G-007A	G-007A	0.3476	Confirmed LTF	0.3476

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
VFT	VFT	0.9223	Confirmed LTF	0.9223
CALDERWOOD	CALDERWOOD	0.4289	Confirmed LTF	0.4289
PRAIRIE	PRAIRIE	1.4620	Confirmed LTF	1.4620
CHEOAH	CHEOAH	0.4399	Confirmed LTF	0.4399
EDWARDS	EDWARDS	0.1638	Confirmed LTF	0.1638
TILTON	TILTON	0.2898	Confirmed LTF	0.2898
GIBSON	GIBSON	0.2621	Confirmed LTF	0.2621
BLUEG	BLUEG	0.8107	Confirmed LTF	0.8107
TRIMBLE	TRIMBLE	0.2571	Confirmed LTF	0.2571
CATAWBA	CATAWBA	0.4630	Confirmed LTF	0.4630

11.6.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
95791627	242631	05EDAN 1	AEP	242620	05DANVL 2	AEP	1	AEP_P4_#11112_05J.FER R 765_A1	breaker	402.0	111.52	112.74	DC	10.88

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
244012	05PINNACLE	-1.8090	Adder	-2.13
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.5545	Adder	4.18
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.5545	Adder	4.18
917332	Z2-043 E	0.3416	Adder	0.4
917342	Z2-044 E	0.2131	Adder	0.25
917512	Z2-088 E OP1	1.3831	Adder	1.63
918492	AA1-063AE OP	1.1318	Adder	1.33
918532	AA1-067 E	0.2426	Adder	0.29
919692	AA2-053 E OP	1.0995	Adder	1.29
919702	AA2-057 E OP	1.2081	Adder	1.42
920592	AA2-165 E	0.1660	Adder	0.2
920672	AA2-174 E OP	0.1271	Adder	0.15
922922	AB1-081 C OP	3.4267	Adder	4.03
922923	AB1-081 E OP	1.4686	Adder	1.73
923262	AB1-132 C OP (Suspended)	4.0634	Adder	4.78
923263	AB1-132 E OP (Suspended)	1.7414	Adder	2.05
923572	AB1-173 C OP	0.6354	Adder	0.75
923573	AB1-173 E OP	0.2965	Adder	0.35
923582	AB1-173AC OP	0.6354	Adder	0.75
923583	AB1-173AE OP	0.2965	Adder	0.35
923911	AB2-031 C O1	0.6307	Adder	0.74
923912	AB2-031 E O1	0.3106	Adder	0.37
923991	AB2-040 C O1	2.0708	Adder	2.44
923992	AB2-040 E O1	1.6943	Adder	1.99
924022	AB2-043 E O1	0.8878	Adder	1.04
924152	AB2-059 E OP	2.0805	Adder	2.45
924162	AB2-060 E OP	1.3365	Adder	1.57
924301	AB2-077 C O1 (Suspended)	0.6357	Adder	0.75
924302	AB2-077 E O1 (Suspended)	0.4238	Adder	0.5
924311	AB2-078 C O1 (Suspended)	0.6357	Adder	0.75
924312	AB2-078 E O1 (Suspended)	0.4238	Adder	0.5
924321	AB2-079 C O1 (Suspended)	0.6357	Adder	0.75
924322	AB2-079 E O1 (Suspended)	0.4238	Adder	0.5

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924501	AB2-099 C (Suspended)	0.1611	Adder	0.19
924502	AB2-099 E (Suspended)	0.0690	Adder	0.08
925122	AB2-169 E	1.6847	Adder	1.98
925172	AB2-174 E O1	1.7694	Adder	2.08
925591	AC1-034 C	2.6159	Adder	3.08
925592	AC1-034 E	1.9734	Adder	2.32
925611	AC1-036 C	0.2686	Adder	0.32
925612	AC1-036 E	0.4382	Adder	0.52
925781	AC1-054 C O1	2.4980	Adder	2.94
925782	AC1-054 E O1	1.1507	Adder	1.35
926051	AC1-083 C O1	3.9626	50/50	3.9626
926052	AC1-083 E O1	6.4654	50/50	6.4654
926071	AC1-086 C	5.9838	Adder	7.04
926072	AC1-086 E	2.7234	Adder	3.2
926201	AC1-098 C	1.9882	Adder	2.34
926202	AC1-098 E	1.1845	Adder	1.39
926211	AC1-099 C	0.6663	Adder	0.78
926212	AC1-099 E	0.3913	Adder	0.46
926271	AC1-105 C O1 (Suspended)	1.9582	Adder	2.3
926272	AC1-105 E O1 (Suspended)	0.9748	Adder	1.15
927021	AC1-189 C	3.0130	Adder	3.54
927022	AC1-189 E	1.5009	Adder	1.77
927141	AC1-208 C	2.9907	Adder	3.52
927142	AC1-208 E	1.3280	Adder	1.56
927251	AC1-221 C	1.5648	50/50	1.5648
927252	AC1-221 E	1.5648	50/50	1.5648
927261	AC1-222 C	1.2518	Adder	1.47
927262	AC1-222 E	1.1917	Adder	1.4
932631	AC2-084 C	2.8343	Adder	3.33
932632	AC2-084 E	1.3960	Adder	1.64
932761	AC2-100 C	3.6012	50/50	3.6012
932762	AC2-100 E	1.7578	50/50	1.7578
933941	AD1-017 C	0.7925	50/50	0.7925
933942	AD1-017 E	1.2931	50/50	1.2931
934311	AD1-055 C	0.8691	Adder	1.02
934312	AD1-055 E	0.2241	Adder	0.26
934331	AD1-057 C O1	3.4134	Adder	4.02
934332	AD1-057 E O1	1.8209	Adder	2.14
934341	AD1-058 C	3.9228	50/50	3.9228
934342	AD1-058 E	0.9968	50/50	0.9968
934611	AD1-087 C O1	2.7885	Adder	3.28
934612	AD1-087 E O1	1.3105	Adder	1.54
934991	AD1-131 C	1.2862	50/50	1.2862
934992	AD1-131 E	0.8574	50/50	0.8574
935171	AD1-152 C O1	2.7711	Adder	3.26
935172	AD1-152 E O1	1.8474	Adder	2.17
936161	AD2-022 C O1	10.5804	50/50	10.5804
936162	AD2-022 E O1	6.3482	50/50	6.3482
936171	AD2-023 C O1	6.1719	50/50	6.1719
936172	AD2-023 E O1	3.3505	50/50	3.3505
936261	AD2-033 C	3.7513	Adder	4.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936262	AD2-033 E	2.5008	Adder	2.94
936361	AD2-046 C O1	3.1497	Adder	3.71
936362	AD2-046 E O1	1.4484	Adder	1.7
936481	AD2-063 C O1	4.5403	Adder	5.34
936482	AD2-063 E O1	3.0016	Adder	3.53
937481	AD2-202 C O1	0.7390	Adder	0.87
937482	AD2-202 E O1	0.4157	Adder	0.49
939181	AE1-148 C O1	3.0900	Adder	3.64
939182	AE1-148 E O1	2.0600	Adder	2.42
939441	AE1-176	-0.1149	Adder	-0.14
940081	AE1-250 C	14.0508	50/50	14.0508
940082	AE1-250 E	9.3672	50/50	9.3672
940241	AE2-006	0.1366	Adder	0.16
940571	AE2-044 C	1.7134	Adder	2.02
940572	AE2-044 E	0.7343	Adder	0.86
940661	AE2-053 O1	1.1444	Adder	1.35
941541	AE2-151 C	0.3022	Adder	0.36
941542	AE2-151 E	0.1627	Adder	0.19
942451	AE2-258	0.7407	Adder	0.87
943171	AE2-346 C	0.3866	Adder	0.45
943172	AE2-346 E	0.1657	Adder	0.19
943901	AF1-058 C	0.7057	Adder	0.83
943902	AF1-058 E	0.4705	Adder	0.55
943911	AF1-059	4.9266	Adder	5.8
944141	AF1-082	1.1014	Adder	1.3
945811	AF1-246 C O1	1.9428	Adder	2.29
945812	AF1-246 E O1	2.6829	Adder	3.16
957481	AF2-042 C O1	7.3954	Adder	16.42
957482	AF2-042 E O1	4.9303	Adder	10.94
957861	AF2-080 C	1.4504	Adder	3.22
957862	AF2-080 E	0.6429	Adder	1.43
959231	AF2-214 C	1.9621	Adder	4.36
959232	AF2-214 E	2.9415	Adder	6.53
959311	AF2-222 C	2.4620	Adder	5.47
959312	AF2-222 E	1.6495	Adder	3.66
959511	AF2-242	1.2786	Adder	2.84
959751	AF2-266 O1	1.3105	Adder	2.91
960061	AF2-297 C O1	1.4962	Adder	3.32
960062	AF2-297 E O1	0.9974	Adder	2.21
960122	AF2-303 E O1	2.4361	Adder	5.41
960331	AF2-324 C O1	1.5851	Adder	3.52
960332	AF2-324 E O1	0.8510	Adder	1.89
960351	AF2-326 C	0.5185	Adder	1.15
960352	AF2-326 E	0.1296	Adder	0.29
960811	AF2-372 C	0.2128	Adder	0.47
960812	AF2-372 E	0.3473	Adder	0.77
960821	AF2-373 C	0.1698	Adder	0.38
960822	AF2-373 E	0.2547	Adder	0.57
960831	AF2-374 C	0.1904	Adder	0.42
960832	AF2-374 E	0.3107	Adder	0.69
NEWTON	NEWTON	0.3567	Confirmed LTF	0.3567
CPL	CPL	5.5176	Confirmed LTF	5.5176

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
G-007A	G-007A	0.6186	Confirmed LTF	0.6186
VFT	VFT	1.6254	Confirmed LTF	1.6254
CBM-W2	CBM-W2	5.2744	Confirmed LTF	5.2744
TVA	TVA	1.9418	Confirmed LTF	1.9418
EDWARDS	EDWARDS	0.1740	Confirmed LTF	0.1740
CBM-S2	CBM-S2	37.0845	Confirmed LTF	37.0845
CBM-S1	CBM-S1	8.5967	Confirmed LTF	8.5967
TILTON	TILTON	0.3856	Confirmed LTF	0.3856
MADISON	MADISON	1.8829	Confirmed LTF	1.8829
GIBSON	GIBSON	0.2905	Confirmed LTF	0.2905
BLUEG	BLUEG	1.2187	Confirmed LTF	1.2187
TRIMBLE	TRIMBLE	0.4096	Confirmed LTF	0.4096
AA2-074	AA2-074	3.7471	LTF	3.7471

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
96925230	313845	6HATHAWAY	DVP	304222	6ROCKYMT230T	CPL	1	DVP_P1-2: LN 2181	single	478.0	103.9	107.33	DC	16.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.1766	80/20	0.1766
314572	3EMPORIA	0.0497	80/20	0.0497
314574	6EVERETS	0.2240	80/20	0.2240
314582	3KELFORD	0.3819	80/20	0.3819
314589	3MURPHYS	0.0609	80/20	0.0609
314623	3WITAKRS	0.3141	80/20	0.3141
314704	3LAWRENC	0.1694	80/20	0.1694
315115	1S HAMPT1	0.7849	80/20	0.7849
315126	1ROARAP2	1.1859	80/20	1.1859
315128	1ROARAP4	1.1317	80/20	1.1317
315131	1EDGECEMA (Deactivation : 22/04/2019)	25.0630	80/20	25.0630
315132	1EDGECEMB (Deactivation : 22/04/2019)	25.0630	80/20	25.0630
315136	1ROSEMG1	2.9028	80/20	2.9028
315137	1ROSEMS1	1.8000	80/20	1.8000
315138	1ROSEMG2	1.3604	80/20	1.3604
315139	1GASTONA	3.5951	80/20	3.5951
315141	1GASTONB	3.5951	80/20	3.5951
315292	1DOMTR78	0.8569	80/20	0.8569
315294	1DOMTR10	6.4385	80/20	6.4385
315601	1CONETOE2SOL	2.6952	80/20	2.6952
315602	1HOLLOMANSOL	1.0473	80/20	1.0473
315605	6W1-029WIND	0.2433	80/20	0.2433
315606	3AA2-053SOLA	1.2090	80/20	1.2090
315607	3AA1-063SOLA	1.0879	80/20	1.0879
315608	3AA2-088SOLA	0.6661	80/20	0.6661
315611	6Z1-036WIND	2.4371	80/20	2.4371
315612	3AA2-057SOLA	1.5529	80/20	1.5529
315614	AA2-178 C	0.7843	80/20	0.7843
920591	AA2-165 C	0.1841	80/20	0.1841
920671	AA2-174 C OP	0.0554	80/20	0.0554
922922	AB1-081 C OP	15.1732	80/20	15.1732
923262	AB1-132 C OP (Suspended)	15.9155	80/20	15.9155
923572	AB1-173 C OP	1.6606	80/20	1.6606
923582	AB1-173AC OP	1.6606	80/20	1.6606
923801	AB2-015 C OP	4.0595	80/20	4.0595
923911	AB2-031 C O1	1.6483	80/20	1.6483
923991	AB2-040 C O1	5.4124	80/20	5.4124
924151	AB2-059 C OP	3.0847	80/20	3.0847
924501	AB2-099 C (Suspended)	0.4117	80/20	0.4117

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924511	AB2-100 C	1.4667	80/20	1.4667
925121	AB2-169 C	0.7206	80/20	0.7206
925171	AB2-174 C O1	0.8699	80/20	0.8699
925591	AC1-034 C	11.5831	80/20	11.5831
925781	AC1-054 C O1	2.9325	80/20	2.9325
926071	AC1-086 C	23.4374	80/20	23.4374
926201	AC1-098 C	6.2999	80/20	6.2999
926211	AC1-099 C	2.1111	80/20	2.1111
927021	AC1-189 C	12.1966	80/20	12.1966
927141	AC1-208 C	9.7050	80/20	9.7050
932631	AC2-084 C	8.9807	80/20	8.9807
933991	AD1-023 C	7.5960	80/20	7.5960
934331	AD1-057 C O1	20.1230	80/20	20.1230
934521	AD1-076 C	29.5910	80/20	29.5910
936401	AD2-051 C O1	6.0417	80/20	6.0417
938171	AE1-026 C O1	19.1647	80/20	19.1647
938221	AE1-035 C	1.5178	80/20	1.5178
938771	AE1-103 C O1	1.6073	80/20	1.6073
940481	AE2-033 C	7.1912	80/20	7.1912
940491	AE2-034 C	3.4100	80/20	3.4100
940571	AE2-044 C	7.5866	80/20	7.5866
941501	AE2-147 C	4.7016	80/20	4.7016
941541	AE2-151 C	0.7823	80/20	0.7823
942471	AE2-260 C O1	9.8487	80/20	9.8487
942851	AE2-304 C	0.2065	80/20	0.2065
943171	AE2-346 C	0.9880	80/20	0.9880
943911	AF1-059	6.8970	80/20	6.8970
944141	AF1-082	4.8771	80/20	4.8771
944871	AF1-152 C	1.5672	80/20	1.5672
945711	AF1-236 C O1	37.3312	80/20	37.3312
946011	AF1-266	6.0196	80/20	6.0196
946281	AF1-292 C	0.9994	80/20	0.9994
957521	AF2-046 C	11.0658	80/20	11.0658
957531	AF2-047 C	8.1028	80/20	8.1028
957791	AF2-073 C (Withdrawn : 07/02/2020)	3.3956	80/20	3.3956
957801	AF2-074 C (Withdrawn : 07/02/2020)	1.5091	80/20	1.5091
957861	AF2-080 C	11.0774	80/20	11.0774
959231	AF2-214 C	16.3925	80/20	16.3925
959511	AF2-242	5.4341	80/20	5.4341
959731	AF2-264 C	1.5338	80/20	1.5338
960081	AF2-299 C	1.6844	80/20	1.6844
960331	AF2-324 C O1	21.0875	80/20	21.0875
960351	AF2-326 C	3.7166	80/20	3.7166
960831	AF2-374 C	0.9486	80/20	0.9486
961091	AF2-400 C	0.2192	80/20	0.2192
NEWTON	NEWTON	1.3496	Confirmed LTF	1.3496
FARMERCITY	FARMERCITY	0.0774	Confirmed LTF	0.0774
G-007A	G-007A	0.8871	Confirmed LTF	0.8871
VFT	VFT	2.3607	Confirmed LTF	2.3607
CALDERWOOD	CALDERWOOD	1.0725	Confirmed LTF	1.0725
PRAIRIE	PRAIRIE	3.6420	Confirmed LTF	3.6420

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CHEOAH	CHEOAH	1.1001	Confirmed LTF	1.1001
EDWARDS	EDWARDS	0.4070	Confirmed LTF	0.4070
TILTON	TILTON	0.7201	Confirmed LTF	0.7201
GIBSON	GIBSON	0.6519	Confirmed LTF	0.6519
BLUEG	BLUEG	2.0138	Confirmed LTF	2.0138
TRIMBLE	TRIMBLE	0.6389	Confirmed LTF	0.6389
CATAWBA	CATAWBA	1.1585	Confirmed LTF	1.1585

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
98021399	313845	6HATHAWAY	DVP	314591	6NASH	DVP	1	DVP_P1-2: LN 2058	single	449.32	115.25	117.79	DC	11.4

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

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
97771249	313851	6ECITYDP2	DVP	314638	6ELIZ CT	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	145.58	146.09	DC	13.58

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.8 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
97771210	314282	6CARSON	DVP	314285	6CHRL249	DVP	1	DVP_P4-2: 562T563	breaker	684.0	170.9	171.71	DC	12.05

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

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
97771399	314282	6CARSON	DVP	314331	6POE	DVP	1	DVP_P4-2: 562T563	breaker	830.0	114.64	115.19	DC	10.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314435	6SAPONY	0.4549	50/50	0.4549
314572	3EMPORIA	0.0497	50/50	0.0497
314704	3LAWRENC	0.1970	50/50	0.1970
315073	1STONECA	-2.5521	Adder	-3.0
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.3573	Adder	3.95
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.3573	Adder	3.95
917332	Z2-043 E	0.3563	Adder	0.42
917342	Z2-044 E	0.2089	Adder	0.25
917512	Z2-088 E OP1	1.2619	Adder	1.48
918492	AA1-063AE OP	1.3792	Adder	1.62
918512	AA1-065 E OP	1.0567	Adder	1.24
918532	AA1-067 E	0.2124	Adder	0.25
919692	AA2-053 E OP	1.4696	Adder	1.73
919702	AA2-057 E OP	1.2393	Adder	1.46
920592	AA2-165 E	0.1703	Adder	0.2
920672	AA2-174 E OP	0.1698	Adder	0.2
922922	AB1-081 C OP	3.2187	Adder	3.79
922923	AB1-081 E OP	1.3794	Adder	1.62
923262	AB1-132 C OP (Suspended)	6.9915	Adder	8.23
923263	AB1-132 E OP (Suspended)	2.9964	Adder	3.53
923572	AB1-173 C OP	1.3921	50/50	1.3921
923573	AB1-173 E OP	0.6497	50/50	0.6497
923582	AB1-173AC OP	1.3921	50/50	1.3921
923583	AB1-173AE OP	0.6497	50/50	0.6497
923852	AB2-025 E	1.1848	50/50	1.1848
923911	AB2-031 C O1	1.3818	50/50	1.3818
923912	AB2-031 E O1	0.6806	50/50	0.6806
923991	AB2-040 C O1	4.5373	50/50	4.5373
923992	AB2-040 E O1	3.7123	50/50	3.7123
924022	AB2-043 E O1	0.9273	Adder	1.09
924152	AB2-059 E OP	1.9542	Adder	2.3
924162	AB2-060 E OP	1.3922	Adder	1.64
924301	AB2-077 C O1 (Suspended)	0.6577	Adder	0.77
924302	AB2-077 E O1 (Suspended)	0.4385	Adder	0.52
924311	AB2-078 C O1 (Suspended)	0.6577	Adder	0.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924312	AB2-078 E O1 (Suspended)	0.4385	Adder	0.52
924321	AB2-079 C O1 (Suspended)	0.6577	Adder	0.77
924322	AB2-079 E O1 (Suspended)	0.4385	Adder	0.52
924501	AB2-099 C (Suspended)	0.1609	Adder	0.19
924502	AB2-099 E (Suspended)	0.0690	Adder	0.08
924511	AB2-100 C	1.6389	50/50	1.6389
924512	AB2-100 E	4.6797	50/50	4.6797
925171	AB2-174 C O1	0.7809	50/50	0.7809
925172	AB2-174 E O1	4.0960	50/50	4.0960
925331	AB2-190 C	-4.8628	Adder	-5.72
925591	AC1-034 C	2.4571	Adder	2.89
925592	AC1-034 E	1.8536	Adder	2.18
925611	AC1-036 C	0.2681	Adder	0.32
925612	AC1-036 E	0.4374	Adder	0.51
925781	AC1-054 C O1	2.6549	Adder	3.12
925782	AC1-054 E O1	1.2231	Adder	1.44
926071	AC1-086 C	10.2958	Adder	12.11
926072	AC1-086 E	4.6860	Adder	5.51
926201	AC1-098 C	2.1487	Adder	2.53
926202	AC1-098 E	1.2801	Adder	1.51
926211	AC1-099 C	0.7200	Adder	0.85
926212	AC1-099 E	0.4229	Adder	0.5
926271	AC1-105 C O1 (Suspended)	1.7319	Adder	2.04
926272	AC1-105 E O1 (Suspended)	0.8621	Adder	1.01
927021	AC1-189 C	2.7143	Adder	3.19
927022	AC1-189 E	1.3521	Adder	1.59
927141	AC1-208 C	3.3646	Adder	3.96
927142	AC1-208 E	1.4940	Adder	1.76
927251	AC1-221 C	0.6771	Adder	0.8
927252	AC1-221 E	0.6771	Adder	0.8
927261	AC1-222 C	1.0789	Adder	1.27
927262	AC1-222 E	1.0271	Adder	1.21
932631	AC2-084 C	3.0630	Adder	3.6
932632	AC2-084 E	1.5086	Adder	1.77
932761	AC2-100 C	1.5582	Adder	1.83
932762	AC2-100 E	0.7606	Adder	0.89
934311	AD1-055 C	0.7491	Adder	0.88
934312	AD1-055 E	0.1932	Adder	0.23
934331	AD1-057 C O1	4.2361	Adder	4.98
934332	AD1-057 E O1	2.2597	Adder	2.66
934341	AD1-058 C	1.6974	Adder	2.0
934342	AD1-058 E	0.4313	Adder	0.51
934611	AD1-087 C O1	2.7039	Adder	3.18
934612	AD1-087 E O1	1.2708	Adder	1.5
934991	AD1-131 C	0.5565	Adder	0.65
934992	AD1-131 E	0.3710	Adder	0.44
935171	AD1-152 C O1	2.6871	Adder	3.16
935172	AD1-152 E O1	1.7914	Adder	2.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936261	AD2-033 C	3.7784	Adder	4.45
936262	AD2-033 E	2.5190	Adder	2.96
936361	AD2-046 C O1	3.0803	Adder	3.62
936362	AD2-046 E O1	1.4165	Adder	1.67
936401	AD2-051 C O1	2.3624	Adder	2.78
936402	AD2-051 E O1	1.0144	Adder	1.19
936481	AD2-063 C O1	4.6665	Adder	5.49
936482	AD2-063 E O1	3.0851	Adder	3.63
936762	AD2-097 E	-2.8602	Adder	-3.36
937481	AD2-202 C O1	0.7166	Adder	0.84
937482	AD2-202 E O1	0.4031	Adder	0.47
938221	AE1-035 C	0.5900	Adder	0.69
938222	AE1-035 E	0.2906	Adder	0.34
938491	AE1-068 C O1	24.7200	Adder	29.08
938492	AE1-068 E O1	13.6532	Adder	16.06
938501	AE1-069 C O1	19.3221	Adder	22.73
938502	AE1-069 E O1	11.0467	Adder	13.0
939181	AE1-148 C O1	3.0312	Adder	3.57
939182	AE1-148 E O1	2.0208	Adder	2.38
939411	AE1-173 C	26.2589	Adder	30.89
939412	AE1-173 E	17.5059	Adder	20.6
940063	AE2-000B BAT	19.1715	50/50	19.1715
940241	AE2-006	0.1364	Adder	0.16
940471	AE2-031 C	13.4693	Adder	15.85
940472	AE2-031 E	8.9795	Adder	10.56
940481	AE2-033 C	16.4321	50/50	16.4321
940482	AE2-033 E	11.0778	50/50	11.0778
940571	AE2-044 C	1.6094	Adder	1.89
940572	AE2-044 E	0.6897	Adder	0.81
940652	AE2-052 BAT	5.2146	50/50	5.2146
940661	AE2-053 O1	1.1227	Adder	1.32
941031	AE2-094 C	16.2224	Adder	19.09
941032	AE2-094 E	7.2656	Adder	8.55
941533	AE2-150 BAT	8.9640	50/50	8.9640
941541	AE2-151 C	0.3077	Adder	0.36
941542	AE2-151 E	0.1657	Adder	0.19
942451	AE2-258	0.7736	Adder	0.91
942471	AE2-260 C O1	12.1817	50/50	12.1817
942472	AE2-260 E O1	17.2783	50/50	17.2783
942931	AE2-313 C	14.5839	Adder	17.16
942932	AE2-313 E	9.7226	Adder	11.44
943171	AE2-346 C	0.3863	Adder	0.45
943172	AE2-346 E	0.1655	Adder	0.19
943901	AF1-058 C	0.5979	Adder	0.7
943902	AF1-058 E	0.3986	Adder	0.47
943911	AF1-059	7.6007	Adder	8.94
944011	AF1-069 C	5.3005	Adder	6.24
944012	AF1-069 E	2.0591	Adder	2.42
944141	AF1-082	1.0346	Adder	1.22
945811	AF1-246 C O1	2.7243	Adder	3.21
945812	AF1-246 E O1	3.7621	Adder	4.43
946011	AF1-266	13.7549	50/50	13.7549

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
946281	AF1-292 C	1.0691	50/50	1.0691
946282	AF1-292 E	0.7207	50/50	0.7207
957481	AF2-042 C O1	10.2471	Adder	22.75
957482	AF2-042 E O1	6.8314	Adder	15.16
957521	AF2-046 C	2.2565	Adder	5.01
957522	AF2-046 E	1.1351	Adder	2.52
957861	AF2-080 C	1.3066	Adder	2.9
957862	AF2-080 E	0.5792	Adder	1.29
959231	AF2-214 C	1.8430	Adder	4.09
959232	AF2-214 E	2.7630	Adder	6.13
959311	AF2-222 C	2.4422	Adder	5.42
959312	AF2-222 E	1.6362	Adder	3.63
959511	AF2-242	1.0892	Adder	2.42
959731	AF2-264 C	0.3155	Adder	0.7
959732	AF2-264 E	0.1554	Adder	0.34
959751	AF2-266 O1	1.5808	Adder	3.51
960061	AF2-297 C O1	1.2676	Adder	2.81
960062	AF2-297 E O1	0.8451	Adder	1.88
960081	AF2-299 C	1.8018	50/50	1.8018
960082	AF2-299 E	1.2012	50/50	1.2012
960122	AF2-303 E O1	2.3009	Adder	5.11
960331	AF2-324 C O1	1.4971	Adder	3.32
960332	AF2-324 E O1	0.8038	Adder	1.78
960351	AF2-326 C	0.4863	Adder	1.08
960352	AF2-326 E	0.1216	Adder	0.27
960363	AF2-327 BAT	1.5823	50/50	1.5823
960811	AF2-372 C	0.2202	Adder	0.49
960812	AF2-372 E	0.3593	Adder	0.8
960821	AF2-373 C	0.1568	Adder	0.35
960822	AF2-373 E	0.2353	Adder	0.52
960831	AF2-374 C	0.2148	Adder	0.48
960832	AF2-374 E	0.3504	Adder	0.78
WEC	WEC	0.3216	Confirmed LTF	0.3216
LGEE	LGEE	0.6070	Confirmed LTF	0.6070
CPL	CPL	3.2877	Confirmed LTF	3.2877
CBM-W2	CBM-W2	12.8665	Confirmed LTF	12.8665
NY	NY	0.4380	Confirmed LTF	0.4380
CBM-W1	CBM-W1	12.0221	Confirmed LTF	12.0221
TVA	TVA	2.7006	Confirmed LTF	2.7006
O-066	O-066	6.2362	Confirmed LTF	6.2362
CBM-S2	CBM-S2	22.4784	Confirmed LTF	22.4784
CBM-S1	CBM-S1	15.0634	Confirmed LTF	15.0634
G-007	G-007	0.9734	Confirmed LTF	0.9734
MADISON	MADISON	0.7479	Confirmed LTF	0.7479
MEC	MEC	1.9449	Confirmed LTF	1.9449
AA2-074	AA2-074	2.2410	LTF	2.2410

11.6.10 Index 10

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97771220	314285	6CHRL249	DVP	314316	6LOCKS	DVP	1	DVP_P4-2: 562T563	breaker	684.0	167.82	168.62	DC	12.05

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.11 Index 11

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97771259	314287	6CHESTFB	DVP	314276	6BASIN	DVP	1	DVP_P4-2: 562T563	breaker	812.0	143.78	144.28	DC	9.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314314	3LOCKS	0.2012	50/50	0.2012
314435	6SAPONY	0.2953	50/50	0.2953
314539	3UNCAMP	0.7963	Adder	0.94
314541	3WATKINS	0.2289	Adder	0.27
315065	1CHESTF6 (Deactivation : 31/05/2023)	172.2577	50/50	172.2577
315073	1STONECA	4.9609	50/50	4.9609
315074	1HOPCGN1 (Deactivation : 25/06/2019)	5.9815	50/50	5.9815
315075	1HOPCGN2 (Deactivation : 25/06/2019)	5.9040	50/50	5.9040
315076	1HOPPOLC	1.1833	50/50	1.1833
315077	1HOPHCF1	1.8496	50/50	1.8496
315078	1HOPHCF2	1.8496	50/50	1.8496
315079	1HOPHCF3	1.8496	50/50	1.8496
315080	1HOPHCF4	2.8078	50/50	2.8078
315131	1EDGECEMA (Deactivation : 22/04/2019)	2.9753	Adder	3.5
315132	1EDGECEMB (Deactivation : 22/04/2019)	2.9753	Adder	3.5
315294	1DOMTR10	3.3252	Adder	3.91
315611	6Z1-036WIND	1.9200	Adder	2.26
900672	V4-068 E	0.1014	Adder	0.12
901082	W1-029 E	8.7895	Adder	10.34
907092	X1-038 E	1.9909	Adder	2.34
916042	Z1-036 E (Suspended)	12.8643	Adder	15.13
917332	Z2-043 E	0.3881	Adder	0.46
917342	Z2-044 E	0.1883	Adder	0.22
917512	Z2-088 E OP1	1.2197	Adder	1.43
918492	AA1-063AE OP	1.4402	Adder	1.69
918512	AA1-065 E OP	1.3056	Adder	1.54
918532	AA1-067 E	0.2265	Adder	0.27
919692	AA2-053 E OP	1.3550	Adder	1.59
919702	AA2-057 E OP	1.1304	Adder	1.33
920042	AA2-088 E OP	3.5947	Adder	4.23
920592	AA2-165 E	0.1554	Adder	0.18
920672	AA2-174 E OP	0.1566	Adder	0.18
920692	AA2-178 E	1.2173	Adder	1.43
922922	AB1-081 C OP	2.8617	Adder	3.37
922923	AB1-081 E OP	1.2264	Adder	1.44
923262	AB1-132 C OP (Suspended)	5.6913	Adder	6.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923263	AB1-132 E OP (Suspended)	2.4391	Adder	2.87
923572	AB1-173 C OP	0.9297	Adder	1.09
923573	AB1-173 E OP	0.4339	Adder	0.51
923582	AB1-173AC OP	0.9297	Adder	1.09
923583	AB1-173AE OP	0.4339	Adder	0.51
923801	AB2-015 C OP	2.8543	Adder	3.36
923802	AB2-015 E OP	2.3405	Adder	2.75
923852	AB2-025 E	0.7691	50/50	0.7691
923911	AB2-031 C O1	0.9228	Adder	1.09
923912	AB2-031 E O1	0.4545	Adder	0.53
923991	AB2-040 C O1	3.0301	Adder	3.56
923992	AB2-040 E O1	2.4792	Adder	2.92
924152	AB2-059 E OP	1.7375	Adder	2.04
924501	AB2-099 C (Suspended)	0.1958	Adder	0.23
924502	AB2-099 E (Suspended)	0.0839	Adder	0.1
924512	AB2-100 E	2.8115	Adder	3.31
924812	AB2-134 E OP	5.9824	Adder	7.04
925051	AB2-160 C O1 (Suspended)	3.5452	50/50	3.5452
925052	AB2-160 E O1 (Suspended)	5.7844	50/50	5.7844
925061	AB2-161 C O1 (Suspended)	1.6051	Adder	1.89
925062	AB2-161 E O1 (Suspended)	2.6189	Adder	3.08
925122	AB2-169 E	1.7850	Adder	2.1
925172	AB2-174 E O1	2.6793	Adder	3.15
925331	AB2-190 C	9.7494	Adder	11.47
925332	AB2-190 E	4.1783	Adder	4.92
925591	AC1-034 C	2.1846	Adder	2.57
925592	AC1-034 E	1.6480	Adder	1.94
925781	AC1-054 C O1	2.1931	Adder	2.58
925782	AC1-054 E O1	1.0103	Adder	1.19
926071	AC1-086 C	8.3811	Adder	9.86
926072	AC1-086 E	3.8145	Adder	4.49
926201	AC1-098 C	2.0819	Adder	2.45
926202	AC1-098 E	1.2403	Adder	1.46
926211	AC1-099 C	0.6976	Adder	0.82
926212	AC1-099 E	0.4097	Adder	0.48
927021	AC1-189 C	2.7052	Adder	3.18
927022	AC1-189 E	1.3476	Adder	1.59
927141	AC1-208 C	3.1013	Adder	3.65
927142	AC1-208 E	1.3771	Adder	1.62
927222	AC1-216 E O1	3.6521	Adder	4.3
932581	AC2-078 C O1	3.0132	50/50	3.0132
932582	AC2-078 E O1	4.9164	50/50	4.9164
932591	AC2-079 C O1	2.3241	Adder	2.73
932592	AC2-079 E O1	3.7919	Adder	4.46
932631	AC2-084 C	2.9678	Adder	3.49
932632	AC2-084 E	1.4617	Adder	1.72
933991	AD1-023 C	4.0664	Adder	4.78
933992	AD1-023 E	2.2137	Adder	2.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934011	AD1-025 C	7.9822	Adder	9.39
934012	AD1-025 E	4.7283	Adder	5.56
934331	AD1-057 C O1	3.5880	Adder	4.22
934332	AD1-057 E O1	1.9140	Adder	2.25
934521	AD1-076 C	16.5492	Adder	19.47
934522	AD1-076 E	8.4269	Adder	9.91
934571	AD1-082 C	3.6580	Adder	4.3
934572	AD1-082 E	2.0867	Adder	2.45
935111	AD1-144 C	0.4786	Adder	0.56
935112	AD1-144 E	0.2615	Adder	0.31
935161	AD1-151 C O1	7.8344	Adder	9.22
935162	AD1-151 E O1	5.2229	Adder	6.14
936041	AD2-007 C	0.3813	Adder	0.45
936042	AD2-007 E	0.2627	Adder	0.31
936051	AD2-008 C	1.3897	Adder	1.63
936052	AD2-008 E	3.0251	Adder	3.56
936401	AD2-051 C O1	2.8693	Adder	3.38
936402	AD2-051 E O1	1.2320	Adder	1.45
936661	AD2-085 C	1.4056	Adder	1.65
936662	AD2-085 E	2.2934	Adder	2.7
936762	AD2-097 E	-12.3121	Adder	-14.48
937541	AD2-215 C	0.4836	Adder	0.57
937542	AD2-215 E	0.2566	Adder	0.3
938171	AE1-026 C O1	10.0174	Adder	11.79
938172	AE1-026 E O1	2.6428	Adder	3.11
938221	AE1-035 C	0.7290	Adder	0.86
938222	AE1-035 E	0.3590	Adder	0.42
938491	AE1-068 C O1	19.9452	Adder	23.46
938492	AE1-068 E O1	11.0160	Adder	12.96
938501	AE1-069 C O1	15.5884	Adder	18.34
938502	AE1-069 E O1	8.9120	Adder	10.48
938561	AE1-075 C	-0.6325	Adder	-0.74
938631	AE1-085 C O1	6.3710	50/50	6.3710
938632	AE1-085 E O1	3.1855	50/50	3.1855
938771	AE1-103 C O1	1.1945	Adder	1.41
938772	AE1-103 E O1	1.6496	Adder	1.94
939191	AE1-149 C O1	8.2848	50/50	8.2848
939192	AE1-149 E O1	5.5232	50/50	5.5232
939311	AE1-162 C	0.6913	Adder	0.81
939312	AE1-162 E	0.4608	Adder	0.54
939411	AE1-173 C	27.3523	Adder	32.18
939412	AE1-173 E	18.2349	Adder	21.45
940061	AE2-000BC O1	7.6033	Adder	8.95
940062	AE2-000BE O1	5.0689	Adder	5.96
940471	AE2-031 C	10.8455	Adder	12.76
940472	AE2-031 E	7.2303	Adder	8.51
940481	AE2-033 C	10.7619	50/50	10.7619
940482	AE2-033 E	7.2552	50/50	7.2552
940491	AE2-034 C	2.1302	Adder	2.51
940492	AE2-034 E	0.9130	Adder	1.07
940541	AE2-040 O1	1.5563	Adder	1.83
940571	AE2-044 C	1.4309	Adder	1.68

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940572	AE2-044 E	0.6132	Adder	0.72
940651	AE2-052	2.7616	50/50	2.7616
940891	AE2-078 C	0.7870	Adder	0.93
940892	AE2-078 E	0.4054	Adder	0.48
940901	AE2-079 C	0.7870	Adder	0.93
940902	AE2-079 E	0.4054	Adder	0.48
941031	AE2-094 C	13.0910	Adder	15.4
941032	AE2-094 E	5.8632	Adder	6.9
941101	AE2-104 C O1	1.0510	Adder	1.24
941102	AE2-104 E O1	1.6709	Adder	1.97
941501	AE2-147 C	4.3704	Adder	5.14
941502	AE2-147 E	2.9136	Adder	3.43
941541	AE2-151 C	0.3607	Adder	0.42
941542	AE2-151 E	0.1942	Adder	0.23
942001	AE2-212 C	2.5464	50/50	2.5464
942002	AE2-212 E	1.6976	50/50	1.6976
942131	AE2-225 C	0.5847	Adder	0.69
942132	AE2-225 E	0.3898	Adder	0.46
942161	AE2-228 C	2.9190	50/50	2.9190
942162	AE2-228 E	1.9460	50/50	1.9460
942171	AE2-229 C	0.5847	Adder	0.69
942172	AE2-229 E	0.3898	Adder	0.46
942341	AE2-247 C	0.6113	Adder	0.72
942342	AE2-247 E	0.8441	Adder	0.99
942371	AE2-250 C O1	6.2975	50/50	6.2975
942372	AE2-250 E O1	3.3237	50/50	3.3237
942471	AE2-260 C O1	7.2256	Adder	8.5
942472	AE2-260 E O1	10.2487	Adder	12.06
942551	AE2-270	12.6786	Adder	14.92
942851	AE2-304 C	0.1758	Adder	0.21
942852	AE2-304 E	0.0684	Adder	0.08
942931	AE2-313 C	11.7431	Adder	13.82
942932	AE2-313 E	7.8287	Adder	9.21
943171	AE2-346 C	0.4698	Adder	0.55
943172	AE2-346 E	0.2013	Adder	0.24
943461	AF1-017 C	0.5530	Adder	0.65
943462	AF1-017 E	0.9023	Adder	1.06
943611	AF1-032 C	0.4775	Adder	0.56
943612	AF1-032 E	0.2534	Adder	0.3
943621	AF1-033 C	0.7870	Adder	0.93
943622	AF1-033 E	0.4054	Adder	0.48
943911	AF1-059	5.6236	Adder	6.62
944011	AF1-069 C	4.2773	Adder	5.03
944012	AF1-069 E	1.6616	Adder	1.95
944141	AF1-082	0.9198	Adder	1.08
944501	AF1-115 C O1	2.3967	Adder	2.82
944502	AF1-115 E O1	1.1805	Adder	1.39
944871	AF1-152 C	1.4568	Adder	1.71
944872	AF1-152 E	0.9712	Adder	1.14
945711	AF1-236 C O1	23.3208	Adder	27.44
945712	AF1-236 E O1	38.0498	Adder	44.76
945811	AF1-246 C O1	2.1420	Adder	2.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945812	AF1-246 E O1	2.9580	Adder	3.48
946011	AF1-266	9.0085	50/50	9.0085
946261	AF1-291 C	2.9454	50/50	2.9454
946262	AF1-291 E	1.9636	50/50	1.9636
946281	AF1-292 C	0.6661	Adder	0.78
946282	AF1-292 E	0.4491	Adder	0.53
957481	AF2-042 C O1	8.0495	Adder	17.87
957482	AF2-042 E O1	5.3664	Adder	11.91
957491	AF2-043 C	0.3099	Adder	0.69
957492	AF2-043 E	0.2066	Adder	0.46
957521	AF2-046 C	3.0168	Adder	6.7
957522	AF2-046 E	1.5175	Adder	3.37
957531	AF2-047 C	2.6828	Adder	5.96
957532	AF2-047 E	1.3494	Adder	3.0
957711	AF2-065 C	3.4270	Adder	7.61
957712	AF2-065 E	3.2926	Adder	7.31
957791	AF2-073 C (Withdrawn : 07/02/2020)	1.4644	Adder	3.25
957792	AF2-073 E (Withdrawn : 07/02/2020)	0.9363	Adder	2.08
957801	AF2-074 C (Withdrawn : 07/02/2020)	0.6508	Adder	1.44
957802	AF2-074 E (Withdrawn : 07/02/2020)	0.4161	Adder	0.92
957821	AF2-076 C O1	0.7804	Adder	1.73
957822	AF2-076 E O1	0.5202	Adder	1.15
957861	AF2-080 C	1.3022	Adder	2.89
957862	AF2-080 E	0.5773	Adder	1.28
957912	AF2-085 BAT	0.9406	Merchant Transmission	0.9406
958141	AF2-108	3.0980	50/50	3.0980
958161	AF2-110 C	0.2296	Adder	0.51
958162	AF2-110 E	0.3592	Adder	0.8
958503	AF2-144 BAT	0.3259	Merchant Transmission	0.3259
959231	AF2-214 C	1.6386	Adder	3.64
959232	AF2-214 E	2.4565	Adder	5.45
959511	AF2-242	1.2912	Adder	2.87
959651	AF2-256 C	0.7297	50/50	0.7297
959652	AF2-256 E	0.4865	50/50	0.4865
959661	AF2-257 C	0.7364	50/50	0.7364
959662	AF2-257 E	0.4909	50/50	0.4909
959671	AF2-258 C	0.6366	50/50	0.6366
959672	AF2-258 E	0.4244	50/50	0.4244
959681	AF2-259 C	2.6555	50/50	2.6555
959682	AF2-259 E	1.7703	50/50	1.7703
959731	AF2-264 C	0.4009	Adder	0.89
959732	AF2-264 E	0.1975	Adder	0.44
960081	AF2-299 C	0.5950	Adder	1.32
960082	AF2-299 E	0.3967	Adder	0.88
960101	AF2-301 C	0.4094	Adder	0.91
960102	AF2-301 E	0.2730	Adder	0.61
960122	AF2-303 E O1	2.0391	Adder	4.53
960132	AF2-304 E O1	2.7453	Adder	6.09
960331	AF2-324 C O1	1.3268	Adder	2.95

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960332	AF2-324 E O1	0.7123	Adder	1.58
960351	AF2-326 C	0.4329	Adder	0.96
960352	AF2-326 E	0.1082	Adder	0.24
960361	AF2-327 C	0.7803	Adder	1.73
960362	AF2-327 E	0.1951	Adder	0.43
960831	AF2-374 C	0.2298	Adder	0.51
960832	AF2-374 E	0.3750	Adder	0.83
961091	AF2-400 C	0.0817	Adder	0.18
961092	AF2-400 E	0.1340	Adder	0.3
961111	AF2-402 C O1	0.2726	Adder	0.61
961112	AF2-402 E O1	0.4457	Adder	0.99
WEC	WEC	0.2240	Confirmed LTF	0.2240
LGEE	LGEE	0.4262	Confirmed LTF	0.4262
CPL	CPL	2.7598	Confirmed LTF	2.7598
CBM-W2	CBM-W2	9.7133	Confirmed LTF	9.7133
NY	NY	0.4678	Confirmed LTF	0.4678
CBM-W1	CBM-W1	8.2441	Confirmed LTF	8.2441
TVA	TVA	2.0916	Confirmed LTF	2.0916
O-066	O-066	6.4512	Confirmed LTF	6.4512
CBM-S2	CBM-S2	18.4960	Confirmed LTF	18.4960
CBM-S1	CBM-S1	11.5446	Confirmed LTF	11.5446
G-007	G-007	1.0057	Confirmed LTF	1.0057
MADISON	MADISON	0.6471	Confirmed LTF	0.6471
MEC	MEC	1.4079	Confirmed LTF	1.4079
AA2-074	AA2-074	1.8806	LTF	1.8806

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
97771269	314299	6HARROWG	DVP	314263	6TYLER1	DVP	1	DVP_P4-2: 562T563	breaker	541.0	142.62	143.38	DC	9.17

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

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
97771324	314301	6HARR205	DVP	314346	6TYLER	DVP	1	DVP_P4-2: 562T563	breaker	541.0	125.36	126.15	DC	9.54

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
917342	Z2-044 E	0.1963	Adder	0.23
918492	AA1-063AE OP	1.4180	Adder	1.67
919692	AA2-053 E OP	1.4063	Adder	1.65
919702	AA2-057 E OP	1.1712	Adder	1.38
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
924152	AB2-059 E OP	1.8233	Adder	2.15
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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
927141	AC1-208 C	3.2021	Adder	3.77
927142	AC1-208 E	1.4219	Adder	1.67
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
936762	AD2-097 E	-3.0883	Adder	-3.63
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
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
941031	AE2-094 C	14.4471	Adder	17.0
941032	AE2-094 E	6.4705	Adder	7.61
942001	AE2-212 C	7.6140	50/50	7.6140
942002	AE2-212 E	5.0760	50/50	5.0760
942371	AE2-250 C O1	14.0362	50/50	14.0362
942372	AE2-250 E O1	7.4080	50/50	7.4080
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
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
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
959671	AF2-258 C	1.9035	50/50	1.9035

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959672	AF2-258 E	1.2690	50/50	1.2690
959681	AF2-259 C	6.7419	50/50	6.7419
959682	AF2-259 E	4.4946	50/50	4.4946
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
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

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
97771279	314316	6LOCKS	DVP	314301	6HARR205	DVP	1	DVP_P4-2: 562T563	breaker	541.0	140.67	141.46	DC	9.54

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.15 Index 15

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97771264	314331	6POE	DVP	314299	6HARROWG	DVP	1	DVP_P4-2: 562T563	breaker	541.0	142.64	143.4	DC	9.17

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.16 Index 16

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
98021388	314435	6SAPONY	DVP	314282	6CARSON	DVP	1	DVP_P1-2: LN 246	single	678.68	126.44	127.99	DC	10.79

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	1HOLLOMANSOL	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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.17 Index 17

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
96925597	314554	3BTLEBRO	DVP	304223	3ROCKYMT115T	CPL	1	DVP_P7-1: LN 2058-2181	tower	93.0	452.72	519.45	DC	62.03

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	1CONETOE2SOL	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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.18 Index 18

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97771302	314561	6CAROLNA	DVP	314583	6LAKEVEW	DVP	1	DVP_P4-2: 218T2160	breaker	459.0	126.56	128.21	DC	14.31

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314539	3UNCAMP	1.6526	Adder	1.94
314541	3WATKINS	0.6292	50/50	0.6292
314574	6EVERETS	0.4446	50/50	0.4446
314582	3KELFORD	0.5554	50/50	0.5554
314589	3MURPHYS	0.1199	50/50	0.1199
315115	1S HAMPT1	1.4656	50/50	1.4656
315126	1ROARAP2	2.4015	50/50	2.4015
315128	1ROARAP4	2.2917	50/50	2.2917
315292	1DOMTR78	1.7816	50/50	1.7816
315294	1DOMTR10	13.3857	50/50	13.3857
315602	1HOLLOMANSOL	2.3992	50/50	2.3992
315606	3AA2-053SOLA	2.4453	50/50	2.4453
315607	3AA1-063SOLA	2.1746	50/50	2.1746
315608	3AA2-088SOLA	1.2899	50/50	1.2899
315611	6Z1-036WIND	3.8974	Adder	4.59
315614	AA2-178 C	1.6067	50/50	1.6067
900672	V4-068 E	0.3808	50/50	0.3808
901082	W1-029 E	13.9650	Adder	16.43
907092	X1-038 E	4.1314	Adder	4.86
913392	Y1-086 E	0.7902	Adder	0.93
916042	Z1-036 E (Suspended)	26.1129	Adder	30.72
917122	Z2-027 E	0.4178	Adder	0.49
917332	Z2-043 E	1.3999	50/50	1.3999
918492	AA1-063AE OP	5.9443	50/50	5.9443
918512	AA1-065 E OP	6.2280	50/50	6.2280
918532	AA1-067 E	1.1047	50/50	1.1047
919692	AA2-053 E OP	6.0871	50/50	6.0871
920042	AA2-088 E OP	12.2010	50/50	12.2010
920671	AA2-174 C OP	0.1120	50/50	0.1120
920672	AA2-174 E OP	0.7034	50/50	0.7034
920692	AA2-178 E	3.9919	50/50	3.9919
922922	AB1-081 C OP	-4.5063	Adder	-5.3
923572	AB1-173 C OP	1.1431	Adder	1.34
923573	AB1-173 E OP	0.5335	Adder	0.63
923582	AB1-173AC OP	1.1431	Adder	1.34
923583	AB1-173AE OP	0.5335	Adder	0.63
923801	AB2-015 C OP	7.4805	50/50	7.4805
923802	AB2-015 E OP	6.1340	50/50	6.1340
923831	AB2-022 C	0.8284	Adder	0.97
923832	AB2-022 E	0.4461	Adder	0.52
923911	AB2-031 C O1	1.1347	Adder	1.33

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923912	AB2-031 E O1	0.5589	Adder	0.66
923991	AB2-040 C O1	3.7258	Adder	4.38
923992	AB2-040 E O1	3.0484	Adder	3.59
924501	AB2-099 C (Suspended)	0.8232	50/50	0.8232
924502	AB2-099 E (Suspended)	0.3528	50/50	0.3528
925121	AB2-169 C	1.4733	50/50	1.4733
925122	AB2-169 E	7.6650	50/50	7.6650
925781	AC1-054 C O1	5.0508	Adder	5.94
925782	AC1-054 E O1	2.3268	Adder	2.74
926201	AC1-098 C	4.0516	Adder	4.77
926202	AC1-098 E	2.4137	Adder	2.84
926211	AC1-099 C	1.3577	Adder	1.6
926212	AC1-099 E	0.7974	Adder	0.94
927141	AC1-208 C	5.4747	Adder	6.44
927142	AC1-208 E	2.4310	Adder	2.86
932631	AC2-084 C	5.7756	Adder	6.79
932632	AC2-084 E	2.8447	Adder	3.35
933991	AD1-023 C	16.4747	50/50	16.4747
933992	AD1-023 E	8.9689	50/50	8.9689
934521	AD1-076 C	62.6103	50/50	62.6103
934522	AD1-076 E	31.8811	50/50	31.8811
936361	AD2-046 C O1	3.6575	Adder	4.3
936362	AD2-046 E O1	1.6819	Adder	1.98
936401	AD2-051 C O1	14.0736	50/50	14.0736
936402	AD2-051 E O1	6.0430	50/50	6.0430
938171	AE1-026 C O1	42.1008	50/50	42.1008
938172	AE1-026 E O1	11.1072	50/50	11.1072
938221	AE1-035 C	3.4773	50/50	3.4773
938222	AE1-035 E	1.7127	50/50	1.7127
938771	AE1-103 C O1	2.4788	Adder	2.92
938772	AE1-103 E O1	3.4231	Adder	4.03
939181	AE1-148 C O1	3.5159	Adder	4.14
939182	AE1-148 E O1	2.3440	Adder	2.76
940491	AE2-034 C	6.9859	50/50	6.9859
940492	AE2-034 E	2.9939	50/50	2.9939
940661	AE2-053 O1	1.3022	Adder	1.53
941501	AE2-147 C	6.9439	Adder	8.17
941502	AE2-147 E	4.6293	Adder	5.45
941541	AE2-151 C	1.5718	50/50	1.5718
941542	AE2-151 E	0.8464	50/50	0.8464
942851	AE2-304 C	0.3189	Adder	0.38
942852	AE2-304 E	0.1240	Adder	0.15
943171	AE2-346 C	1.9758	50/50	1.9758
943172	AE2-346 E	0.8468	50/50	0.8468
944142	AF1-082 BAT	1.7041	Merchant Transmission	1.7041
944871	AF1-152 C	2.3146	Adder	2.72
944872	AF1-152 E	1.5431	Adder	1.82
945711	AF1-236 C O1	76.4785	50/50	76.4785
945712	AF1-236 E O1	124.7808	50/50	124.7808
946012	AF1-266 BAT	8.0020	Merchant Transmission	8.0020
957521	AF2-046 C	21.8452	50/50	21.8452
957522	AF2-046 E	10.9883	50/50	10.9883

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957531	AF2-047 C	16.5997	50/50	16.5997
957532	AF2-047 E	8.3498	50/50	8.3498
957791	AF2-073 C (Withdrawn : 07/02/2020)	2.9263	Adder	6.5
957792	AF2-073 E (Withdrawn : 07/02/2020)	1.8709	Adder	4.15
957801	AF2-074 C (Withdrawn : 07/02/2020)	1.3006	Adder	2.89
957802	AF2-074 E (Withdrawn : 07/02/2020)	0.8315	Adder	1.85
957821	AF2-076 C O1	1.0123	Adder	2.25
957822	AF2-076 E O1	0.6748	Adder	1.5
959233	AF2-214 BAT	7.5865	Merchant Transmission	7.5865
959511	AF2-242	10.9790	50/50	10.9790
959731	AF2-264 C	3.0494	50/50	3.0494
959732	AF2-264 E	1.5020	50/50	1.5020
960123	AF2-303 BAT	5.8275	Merchant Transmission	5.8275
960353	AF2-326 BAT	0.4490	Merchant Transmission	0.4490
960831	AF2-374 C	1.9105	50/50	1.9105
960832	AF2-374 E	3.1171	50/50	3.1171
961091	AF2-400 C	0.4039	50/50	0.4039
961092	AF2-400 E	0.6628	50/50	0.6628
NEWTON	NEWTON	0.5931	Confirmed LTF	0.5931
FARMERCITY	FARMERCITY	0.0346	Confirmed LTF	0.0346
G-007A	G-007A	0.4915	Confirmed LTF	0.4915
VFT	VFT	1.3094	Confirmed LTF	1.3094
CALDERWOOD	CALDERWOOD	0.4980	Confirmed LTF	0.4980
PRAIRIE	PRAIRIE	1.6273	Confirmed LTF	1.6273
CHEOAH	CHEOAH	0.5115	Confirmed LTF	0.5115
EDWARDS	EDWARDS	0.1771	Confirmed LTF	0.1771
TILTON	TILTON	0.3118	Confirmed LTF	0.3118
GIBSON	GIBSON	0.2839	Confirmed LTF	0.2839
BLUEG	BLUEG	0.8697	Confirmed LTF	0.8697
TRIMBLE	TRIMBLE	0.2755	Confirmed LTF	0.2755
CATAWBA	CATAWBA	0.5495	Confirmed LTF	0.5495

11.6.19 Index 19

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
97771462	314561	6CAROLNA	DVP	314599	6ROA VAL	DVP	1	DVP_P4-2: 238T2002	breaker	671.0	100.5	101.47	DC	14.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.1077	50/50	0.1077
314704	3LAWRENC	0.3940	50/50	0.3940
315126	1ROARAP2	1.7251	50/50	1.7251
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.9177	Adder	5.79
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.9177	Adder	5.79
315136	1ROSEMG1	4.2161	50/50	4.2161
315137	1ROSEMS1	2.6144	50/50	2.6144
315138	1ROSEMG2	1.9760	50/50	1.9760
315139	1GASTONA	6.6275	50/50	6.6275
315141	1GASTONB	6.6275	50/50	6.6275
315294	1DOMTR10	-5.1296	Adder	-6.03
315611	6Z1-036WIND	-2.2091	Adder	-2.6
917342	Z2-044 E	0.2911	Adder	0.34
918492	AA1-063AE OP	2.9372	Adder	3.46
919692	AA2-053 E OP	2.8284	Adder	3.33
919702	AA2-057 E OP	1.7334	Adder	2.04
920592	AA2-165 E	0.2382	Adder	0.28
920672	AA2-174 E OP	0.3268	Adder	0.38
922922	AB1-081 C OP	4.5320	Adder	5.33
922923	AB1-081 E OP	1.9423	Adder	2.29
923262	AB1-132 C OP (Suspended)	29.3404	50/50	29.3404
923263	AB1-132 E OP (Suspended)	12.5744	50/50	12.5744
923572	AB1-173 C OP	3.1248	50/50	3.1248
923573	AB1-173 E OP	1.4583	50/50	1.4583
923582	AB1-173AC OP	3.1248	50/50	3.1248
923583	AB1-173AE OP	1.4583	50/50	1.4583
923911	AB2-031 C O1	3.1017	50/50	3.1017
923912	AB2-031 E O1	1.5277	50/50	1.5277
923991	AB2-040 C O1	10.1847	50/50	10.1847
923992	AB2-040 E O1	8.3329	50/50	8.3329
924022	AB2-043 E O1	1.2769	Adder	1.5
924152	AB2-059 E OP	2.7516	Adder	3.24
924162	AB2-060 E OP	1.9081	Adder	2.24
924301	AB2-077 C O1 (Suspended)	0.8971	Adder	1.06
924302	AB2-077 E O1 (Suspended)	0.5981	Adder	0.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924311	AB2-078 C O1 (Suspended)	0.8971	Adder	1.06
924312	AB2-078 E O1 (Suspended)	0.5981	Adder	0.7
924321	AB2-079 C O1 (Suspended)	0.8971	Adder	1.06
924322	AB2-079 E O1 (Suspended)	0.5981	Adder	0.7
924511	AB2-100 C	3.6931	50/50	3.6931
924512	AB2-100 E	10.5452	50/50	10.5452
925171	AB2-174 C O1	1.7279	50/50	1.7279
925172	AB2-174 E O1	9.0630	50/50	9.0630
925591	AC1-034 C	3.4597	Adder	4.07
925592	AC1-034 E	2.6099	Adder	3.07
925611	AC1-036 C	0.3376	Adder	0.4
925612	AC1-036 E	0.5508	Adder	0.65
925781	AC1-054 C O1	4.7648	Adder	5.61
925782	AC1-054 E O1	2.1950	Adder	2.58
926071	AC1-086 C	43.2072	50/50	43.2072
926072	AC1-086 E	19.6650	50/50	19.6650
926201	AC1-098 C	1.9358	Adder	2.28
926202	AC1-098 E	1.1533	Adder	1.36
926211	AC1-099 C	0.6487	Adder	0.76
926212	AC1-099 E	0.3810	Adder	0.45
927141	AC1-208 C	5.1597	Adder	6.07
927142	AC1-208 E	2.2911	Adder	2.7
932631	AC2-084 C	2.7596	Adder	3.25
932632	AC2-084 E	1.3592	Adder	1.6
934331	AD1-057 C O1	12.9067	50/50	12.9067
934332	AD1-057 E O1	6.8850	50/50	6.8850
936261	AD2-033 C	4.8479	Adder	5.7
936262	AD2-033 E	3.2319	Adder	3.8
936361	AD2-046 C O1	4.6384	Adder	5.46
936362	AD2-046 E O1	2.1330	Adder	2.51
936481	AD2-063 C O1	6.2340	Adder	7.33
936482	AD2-063 E O1	4.1214	Adder	4.85
938173	AE1-026 BAT	15.6372	Merchant Transmission	15.6372
939181	AE1-148 C O1	4.5450	Adder	5.35
939182	AE1-148 E O1	3.0300	Adder	3.56
940241	AE2-006	0.1718	Adder	0.2
940481	AE2-033 C	28.1080	50/50	28.1080
940482	AE2-033 E	18.9492	50/50	18.9492
940571	AE2-044 C	2.2660	Adder	2.67
940572	AE2-044 E	0.9711	Adder	1.14
940661	AE2-053 O1	1.6833	Adder	1.98
942451	AE2-258	1.0653	Adder	1.25
942471	AE2-260 C O1	26.1191	50/50	26.1191
942472	AE2-260 E O1	37.0469	50/50	37.0469
943911	AF1-059	13.9527	Adder	16.41
944141	AF1-082	1.4567	Adder	1.71
946011	AF1-266	23.5286	50/50	23.5286
946281	AF1-292 C	2.2878	50/50	2.2878
946282	AF1-292 E	1.5424	50/50	1.5424

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959231	AF2-214 C	2.5950	Adder	5.76
959232	AF2-214 E	3.8903	Adder	8.64
959311	AF2-222 C	3.0332	Adder	6.73
959312	AF2-222 E	2.0323	Adder	4.51
960081	AF2-299 C	3.8559	50/50	3.8559
960082	AF2-299 E	2.5706	50/50	2.5706
960122	AF2-303 E O1	3.3703	Adder	7.48
960331	AF2-324 C O1	2.1929	Adder	4.87
960332	AF2-324 E O1	1.1774	Adder	2.61
960351	AF2-326 C	0.6749	Adder	1.5
960352	AF2-326 E	0.1687	Adder	0.37
960811	AF2-372 C	0.3003	Adder	0.67
960812	AF2-372 E	0.4901	Adder	1.09
WEC	WEC	0.1188	Confirmed LTF	0.1188
LGEE	LGEE	0.2248	Confirmed LTF	0.2248
CPL	CPL	1.1808	Confirmed LTF	1.1808
CBM-W2	CBM-W2	4.6355	Confirmed LTF	4.6355
NY	NY	0.1615	Confirmed LTF	0.1615
CBM-W1	CBM-W1	4.4411	Confirmed LTF	4.4411
TVA	TVA	0.9674	Confirmed LTF	0.9674
O-066	O-066	2.3117	Confirmed LTF	2.3117
CBM-S2	CBM-S2	7.9880	Confirmed LTF	7.9880
CBM-S1	CBM-S1	5.4102	Confirmed LTF	5.4102
G-007	G-007	0.3609	Confirmed LTF	0.3609
MADISON	MADISON	0.2540	Confirmed LTF	0.2540
MEC	MEC	0.7103	Confirmed LTF	0.7103

11.6.20 Index 20

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
98021438	314563	6CLUBHSE	DVP	940480	AE2-033 TAP	DVP	1	DVP_P1-2: LN 246	single	678.68	111.53	113.13	DC	10.79

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.21 Index 21

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
98021179	314569	6EARLEYS	DVP	314575	6NUCO TP	DVP	1	DVP_P1-2: LN 2131	single	571.52	164.76	166.37	DC	9.28

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.22 Index 22

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
96925602	314574	6EVERETS	DVP	304451	6GREENVILE T	CPL	1	DVP_P7-1: LN 2058-2181	tower	478.0	183.14	184.22	DC	11.41

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.23 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
98021190	314575	6NUCO TP	DVP	957790	AF2-073 TAP	DVP	1	DVP_P1-2: LN 2092	single	571.52	158.68	160.3	DC	9.28

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
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
AA2-074	AA2-074	2.5717	LTF	2.5717

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
97771225	314583	6LAKEVEW	DVP	314561	6CAROLNA	DVP	1	DVP_P4-2: 23872	breaker	459.0	156.63	160.51	DC	18.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314539	3UNCAMP	-0.9070	Adder	-1.07
314541	3WATKINS	-0.2911	Adder	-0.34
314572	3EMPORIA	0.0797	50/50	0.0797
314704	3LAWRENC	0.3224	50/50	0.3224
315131	1EDGE CMA (Deactivation : 22/04/2019)	8.8241	50/50	8.8241
315132	1EDGE CMB (Deactivation : 22/04/2019)	8.8241	50/50	8.8241
315136	1ROSEMG1	6.5873	50/50	6.5873
315137	1ROSEMS1	4.0848	50/50	4.0848
315138	1ROSEMG2	3.0873	50/50	3.0873
315139	1GASTONA	10.3679	50/50	10.3679
315141	1GASTONB	10.3679	50/50	10.3679
907092	X1-038 E	-2.2675	Adder	-2.67
917342	Z2-044 E	0.2211	Adder	0.26
917512	Z2-088 E OP1	1.4488	Adder	1.7
922922	AB1-081 C OP	6.6724	50/50	6.6724
922923	AB1-081 E OP	2.8596	50/50	2.8596
923262	AB1-132 C OP (Suspended)	45.8993	50/50	45.8993
923263	AB1-132 E OP (Suspended)	19.6711	50/50	19.6711
923801	AB2-015 C OP	-3.4718	Adder	-4.08
924151	AB2-059 C OP	1.3565	50/50	1.3565
924152	AB2-059 E OP	4.0511	50/50	4.0511
924511	AB2-100 C	5.1474	50/50	5.1474
924512	AB2-100 E	14.6979	50/50	14.6979
925172	AB2-174 E O1	3.5575	Adder	4.19
925591	AC1-034 C	5.0937	50/50	5.0937
925592	AC1-034 E	3.8426	50/50	3.8426
926071	AC1-086 C	67.5921	50/50	67.5921
926072	AC1-086 E	30.7634	50/50	30.7634
934331	AD1-057 C O1	20.0206	50/50	20.0206
934332	AD1-057 E O1	10.6798	50/50	10.6798
938173	AE1-026 BAT	11.6712	Merchant Transmission	11.6712
940481	AE2-033 C	38.5147	50/50	38.5147
940482	AE2-033 E	25.9650	50/50	25.9650
940571	AE2-044 C	3.3362	50/50	3.3362
940572	AE2-044 E	1.2153	Adder	1.43
942471	AE2-260 C O1	35.7893	50/50	35.7893
942472	AE2-260 E O1	50.7627	50/50	50.7627
943911	AF1-059	9.7112	Adder	11.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
944141	AF1-082	1.8230	Adder	2.14
946011	AF1-266	32.2399	50/50	32.2399
946281	AF1-292 C	2.0749	50/50	2.0749
946282	AF1-292 E	1.3988	50/50	1.3988
959231	AF2-214 C	7.2086	50/50	7.2086
959232	AF2-214 E	10.8069	50/50	10.8069
960081	AF2-299 C	3.4970	50/50	3.4970
960082	AF2-299 E	2.3313	50/50	2.3313
960122	AF2-303 E O1	11.4105	50/50	11.4105
960331	AF2-324 C O1	7.4244	50/50	7.4244
960332	AF2-324 E O1	3.9861	50/50	3.9861
960351	AF2-326 C	0.7992	Adder	1.77
960352	AF2-326 E	0.1998	Adder	0.44
WEC	WEC	0.1468	Confirmed LTF	0.1468
LGEE	LGEE	0.2750	Confirmed LTF	0.2750
CPL	CPL	1.6299	Confirmed LTF	1.6299
CBM-W2	CBM-W2	5.7985	Confirmed LTF	5.7985
NY	NY	0.1631	Confirmed LTF	0.1631
CBM-W1	CBM-W1	5.5044	Confirmed LTF	5.5044
TVA	TVA	1.2096	Confirmed LTF	1.2096
O-066	O-066	2.3587	Confirmed LTF	2.3587
CBM-S2	CBM-S2	10.4156	Confirmed LTF	10.4156
CBM-S1	CBM-S1	6.7564	Confirmed LTF	6.7564
G-007	G-007	0.3682	Confirmed LTF	0.3682
MADISON	MADISON	0.3306	Confirmed LTF	0.3306
MEC	MEC	0.8819	Confirmed LTF	0.8819

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
98021350	314583	6LAKEVEW	DVP	924510	AB2-100 TAP	DVP	1	DVP_P1-2: LN 246	single	375.06	141.03	143.71	DC	10.04

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.26 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
96925237	314591	6NASH	DVP	304226	6PA-RMOUNT#4	CPLE	1	DVP_P1-2: LN 2058	single	478.0	103.02	105.41	DC	11.4

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	1EDGECSMA (Deactivation : 22/04/2019)	26.1992	80/20	26.1992
315132	1EDGECSMB (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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

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
97339356	314596	3POPLR C	DVP	314573	3EVERETS	DVP	1	DVP_P4-2: 246T2034	breaker	349.0	159.38	160.59	DC	8.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315292	1DOMTR78	3.1666	50/50	3.1666
315294	1DOMTR10	23.7920	50/50	23.7920
315611	6Z1-036WIND	5.3348	50/50	5.3348
315614	AA2-178 C	2.1112	50/50	2.1112
901082	W1-029 E	13.8573	Adder	16.3
913392	Y1-086 E	0.7575	Adder	0.89
916042	Z1-036 E (Suspended)	35.7432	50/50	35.7432
917122	Z2-027 E	0.4142	Adder	0.49
920692	AA2-178 E	5.2454	50/50	5.2454
922922	AB1-081 C OP	-2.5214	Adder	-2.97
923831	AB2-022 C	0.7942	Adder	0.93
923832	AB2-022 E	0.4276	Adder	0.5
925121	AB2-169 C	0.8315	50/50	0.8315
925122	AB2-169 E	4.3260	50/50	4.3260
926211	AC1-099 C	-0.5791	Adder	-0.68
933991	AD1-023 C	20.7475	50/50	20.7475
933992	AD1-023 E	11.2949	50/50	11.2949
934521	AD1-076 C	85.6365	50/50	85.6365
934522	AD1-076 E	43.6060	50/50	43.6060
938531	AE1-072 C O1	4.3958	Adder	5.17
938532	AE1-072 E O1	2.2915	Adder	2.7
940491	AE2-034 C	9.1795	50/50	9.1795
940492	AE2-034 E	3.9341	50/50	3.9341
941501	AE2-147 C	6.8904	Adder	8.11
941502	AE2-147 E	4.5936	Adder	5.4
942851	AE2-304 C	0.4118	50/50	0.4118
942852	AE2-304 E	0.1602	50/50	0.1602
944142	AF1-082 BAT	0.9535	Merchant Transmission	0.9535
944871	AF1-152 C	2.2968	Adder	2.7
944872	AF1-152 E	1.5312	Adder	1.8
945711	AF1-236 C O1	100.4939	50/50	100.4939
945712	AF1-236 E O1	163.9637	50/50	163.9637
957531	AF2-047 C	21.8123	50/50	21.8123
957532	AF2-047 E	10.9717	50/50	10.9717
959233	AF2-214 BAT	4.2448	Merchant Transmission	4.2448
960123	AF2-303 BAT	2.3884	Merchant Transmission	2.3884
960353	AF2-326 BAT	0.2778	Merchant Transmission	0.2778
NEWTON	NEWTON	0.5287	Confirmed LTF	0.5287
FARMERCITY	FARMERCITY	0.0307	Confirmed LTF	0.0307
G-007A	G-007A	0.4891	Confirmed LTF	0.4891
VFT	VFT	1.3094	Confirmed LTF	1.3094

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CALDERWOOD	CALDERWOOD	0.4389	Confirmed LTF	0.4389
PRAIRIE	PRAIRIE	1.4491	Confirmed LTF	1.4491
CHEOAH	CHEOAH	0.4499	Confirmed LTF	0.4499
EDWARDS	EDWARDS	0.1582	Confirmed LTF	0.1582
TILTON	TILTON	0.2791	Confirmed LTF	0.2791
GIBSON	GIBSON	0.2539	Confirmed LTF	0.2539
BLUEG	BLUEG	0.7795	Confirmed LTF	0.7795
TRIMBLE	TRIMBLE	0.2471	Confirmed LTF	0.2471
CATAWBA	CATAWBA	0.4770	Confirmed LTF	0.4770

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
97771464	314599	6ROA VAL	DVP	314266	6NORTHAMPTON	DVP	1	DVP_P4-2: 238T2002	breaker	671.0	100.45	101.43	DC	14.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.1077	50/50	0.1077
314704	3LAWRENC	0.3940	50/50	0.3940
315126	1ROARAP2	1.7251	50/50	1.7251
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.9177	Adder	5.79
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.9177	Adder	5.79
315136	1ROSEMG1	4.2161	50/50	4.2161
315137	1ROSEMS1	2.6144	50/50	2.6144
315138	1ROSEMG2	1.9760	50/50	1.9760
315139	1GASTONA	6.6275	50/50	6.6275
315141	1GASTONB	6.6275	50/50	6.6275
315294	1DOMTR10	-5.1296	Adder	-6.03
315611	6Z1-036WIND	-2.2091	Adder	-2.6
917342	Z2-044 E	0.2911	Adder	0.34
918492	AA1-063AE OP	2.9372	Adder	3.46
919692	AA2-053 E OP	2.8284	Adder	3.33
919702	AA2-057 E OP	1.7334	Adder	2.04
920592	AA2-165 E	0.2382	Adder	0.28
920672	AA2-174 E OP	0.3268	Adder	0.38
922922	AB1-081 C OP	4.5320	Adder	5.33
922923	AB1-081 E OP	1.9423	Adder	2.29
923262	AB1-132 C OP (Suspended)	29.3404	50/50	29.3404
923263	AB1-132 E OP (Suspended)	12.5744	50/50	12.5744
923572	AB1-173 C OP	3.1248	50/50	3.1248
923573	AB1-173 E OP	1.4583	50/50	1.4583
923582	AB1-173AC OP	3.1248	50/50	3.1248
923583	AB1-173AE OP	1.4583	50/50	1.4583
923911	AB2-031 C O1	3.1017	50/50	3.1017
923912	AB2-031 E O1	1.5277	50/50	1.5277
923991	AB2-040 C O1	10.1847	50/50	10.1847
923992	AB2-040 E O1	8.3329	50/50	8.3329
924022	AB2-043 E O1	1.2769	Adder	1.5
924152	AB2-059 E OP	2.7516	Adder	3.24
924162	AB2-060 E OP	1.9081	Adder	2.24
924301	AB2-077 C O1 (Suspended)	0.8971	Adder	1.06
924302	AB2-077 E O1 (Suspended)	0.5981	Adder	0.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924311	AB2-078 C O1 (Suspended)	0.8971	Adder	1.06
924312	AB2-078 E O1 (Suspended)	0.5981	Adder	0.7
924321	AB2-079 C O1 (Suspended)	0.8971	Adder	1.06
924322	AB2-079 E O1 (Suspended)	0.5981	Adder	0.7
924511	AB2-100 C	3.6931	50/50	3.6931
924512	AB2-100 E	10.5452	50/50	10.5452
925171	AB2-174 C O1	1.7279	50/50	1.7279
925172	AB2-174 E O1	9.0630	50/50	9.0630
925591	AC1-034 C	3.4597	Adder	4.07
925592	AC1-034 E	2.6099	Adder	3.07
925611	AC1-036 C	0.3376	Adder	0.4
925612	AC1-036 E	0.5508	Adder	0.65
925781	AC1-054 C O1	4.7648	Adder	5.61
925782	AC1-054 E O1	2.1950	Adder	2.58
926071	AC1-086 C	43.2072	50/50	43.2072
926072	AC1-086 E	19.6650	50/50	19.6650
926201	AC1-098 C	1.9358	Adder	2.28
926202	AC1-098 E	1.1533	Adder	1.36
926211	AC1-099 C	0.6487	Adder	0.76
926212	AC1-099 E	0.3810	Adder	0.45
927141	AC1-208 C	5.1597	Adder	6.07
927142	AC1-208 E	2.2911	Adder	2.7
932631	AC2-084 C	2.7596	Adder	3.25
932632	AC2-084 E	1.3592	Adder	1.6
934331	AD1-057 C O1	12.9067	50/50	12.9067
934332	AD1-057 E O1	6.8850	50/50	6.8850
936261	AD2-033 C	4.8479	Adder	5.7
936262	AD2-033 E	3.2319	Adder	3.8
936361	AD2-046 C O1	4.6384	Adder	5.46
936362	AD2-046 E O1	2.1330	Adder	2.51
936481	AD2-063 C O1	6.2340	Adder	7.33
936482	AD2-063 E O1	4.1214	Adder	4.85
938173	AE1-026 BAT	15.6372	Merchant Transmission	15.6372
939181	AE1-148 C O1	4.5450	Adder	5.35
939182	AE1-148 E O1	3.0300	Adder	3.56
940241	AE2-006	0.1718	Adder	0.2
940481	AE2-033 C	28.1080	50/50	28.1080
940482	AE2-033 E	18.9492	50/50	18.9492
940571	AE2-044 C	2.2660	Adder	2.67
940572	AE2-044 E	0.9711	Adder	1.14
940661	AE2-053 O1	1.6833	Adder	1.98
942451	AE2-258	1.0653	Adder	1.25
942471	AE2-260 C O1	26.1191	50/50	26.1191
942472	AE2-260 E O1	37.0469	50/50	37.0469
943911	AF1-059	13.9527	Adder	16.41
944141	AF1-082	1.4567	Adder	1.71
946011	AF1-266	23.5286	50/50	23.5286
946281	AF1-292 C	2.2878	50/50	2.2878
946282	AF1-292 E	1.5424	50/50	1.5424

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959231	AF2-214 C	2.5950	Adder	5.76
959232	AF2-214 E	3.8903	Adder	8.64
959311	AF2-222 C	3.0332	Adder	6.73
959312	AF2-222 E	2.0323	Adder	4.51
960081	AF2-299 C	3.8559	50/50	3.8559
960082	AF2-299 E	2.5706	50/50	2.5706
960122	AF2-303 E O1	3.3703	Adder	7.48
960331	AF2-324 C O1	2.1929	Adder	4.87
960332	AF2-324 E O1	1.1774	Adder	2.61
960351	AF2-326 C	0.6749	Adder	1.5
960352	AF2-326 E	0.1687	Adder	0.37
960811	AF2-372 C	0.3003	Adder	0.67
960812	AF2-372 E	0.4901	Adder	1.09
WEC	WEC	0.1188	Confirmed LTF	0.1188
LGEE	LGEE	0.2248	Confirmed LTF	0.2248
CPL	CPL	1.1808	Confirmed LTF	1.1808
CBM-W2	CBM-W2	4.6355	Confirmed LTF	4.6355
NY	NY	0.1615	Confirmed LTF	0.1615
CBM-W1	CBM-W1	4.4411	Confirmed LTF	4.4411
TVA	TVA	0.9674	Confirmed LTF	0.9674
O-066	O-066	2.3117	Confirmed LTF	2.3117
CBM-S2	CBM-S2	7.9880	Confirmed LTF	7.9880
CBM-S1	CBM-S1	5.4102	Confirmed LTF	5.4102
G-007	G-007	0.3609	Confirmed LTF	0.3609
MADISON	MADISON	0.2540	Confirmed LTF	0.2540
MEC	MEC	0.7103	Confirmed LTF	0.7103

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
97339351	314614	3TRWBRDG2	DVP	314596	3POPLR C	DVP	1	DVP_P4-2: 246T2034	breaker	350.0	160.55	161.76	DC	8.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315292	1DOMTR78	3.1666	50/50	3.1666
315294	1DOMTR10	23.7920	50/50	23.7920
315611	6Z1-036WIND	5.3348	50/50	5.3348
315614	AA2-178 C	2.1112	50/50	2.1112
901082	W1-029 E	13.8573	Adder	16.3
913392	Y1-086 E	0.7575	Adder	0.89
916042	Z1-036 E (Suspended)	35.7432	50/50	35.7432
917122	Z2-027 E	0.4142	Adder	0.49
920692	AA2-178 E	5.2454	50/50	5.2454
922922	AB1-081 C OP	-2.5214	Adder	-2.97
923831	AB2-022 C	0.7942	Adder	0.93
923832	AB2-022 E	0.4276	Adder	0.5
925121	AB2-169 C	0.8315	50/50	0.8315
925122	AB2-169 E	4.3260	50/50	4.3260
926211	AC1-099 C	-0.5791	Adder	-0.68
933991	AD1-023 C	20.7475	50/50	20.7475
933992	AD1-023 E	11.2949	50/50	11.2949
934521	AD1-076 C	85.6365	50/50	85.6365
934522	AD1-076 E	43.6060	50/50	43.6060
938531	AE1-072 C O1	4.3958	Adder	5.17
938532	AE1-072 E O1	2.2915	Adder	2.7
940491	AE2-034 C	9.1795	50/50	9.1795
940492	AE2-034 E	3.9341	50/50	3.9341
941501	AE2-147 C	6.8904	Adder	8.11
941502	AE2-147 E	4.5936	Adder	5.4
942851	AE2-304 C	0.4118	50/50	0.4118
942852	AE2-304 E	0.1602	50/50	0.1602
944142	AF1-082 BAT	0.9535	Merchant Transmission	0.9535
944871	AF1-152 C	2.2968	Adder	2.7
944872	AF1-152 E	1.5312	Adder	1.8
945711	AF1-236 C O1	100.4939	50/50	100.4939
945712	AF1-236 E O1	163.9637	50/50	163.9637
957531	AF2-047 C	21.8123	50/50	21.8123
957532	AF2-047 E	10.9717	50/50	10.9717
959233	AF2-214 BAT	4.2448	Merchant Transmission	4.2448
960123	AF2-303 BAT	2.3884	Merchant Transmission	2.3884
960353	AF2-326 BAT	0.2778	Merchant Transmission	0.2778
NEWTON	NEWTON	0.5287	Confirmed LTF	0.5287
FARMERCITY	FARMERCITY	0.0307	Confirmed LTF	0.0307
G-007A	G-007A	0.4891	Confirmed LTF	0.4891
VFT	VFT	1.3094	Confirmed LTF	1.3094

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CALDERWOOD	CALDERWOOD	0.4389	Confirmed LTF	0.4389
PRAIRIE	PRAIRIE	1.4491	Confirmed LTF	1.4491
CHEOAH	CHEOAH	0.4499	Confirmed LTF	0.4499
EDWARDS	EDWARDS	0.1582	Confirmed LTF	0.1582
TILTON	TILTON	0.2791	Confirmed LTF	0.2791
GIBSON	GIBSON	0.2539	Confirmed LTF	0.2539
BLUEG	BLUEG	0.7795	Confirmed LTF	0.7795
TRIMBLE	TRIMBLE	0.2471	Confirmed LTF	0.2471
CATAWBA	CATAWBA	0.4770	Confirmed LTF	0.4770

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
97771244	314639	6TANGLEW	DVP	313851	6ECITYDP2	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	147.56	148.07	DC	13.58

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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
97771239	314651	6WINFALL	DVP	314639	6TANGLEW	DVP	1	DVP_P4-2: 246T247	breaker	1163.0	155.25	155.78	DC	13.59

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	1CONETOESOL	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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

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
98021244	924510	AB2-100 TAP	DVP	314563	6CLUBHSE	DVP	1	DVP_P1-2: LN 246	single	375.06	157.4	160.07	DC	10.02

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	1CONETOESOL	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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.33 Index 33

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
97771454	936400	AD2-051 TAP	DVP	314569	6EARLEYS	DVP	1	DVP_P4-2: 238T2002	breaker	699.0	104.07	105.0	DC	14.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314572	3EMPORIA	0.1077	50/50	0.1077
314704	3LAWRENC	0.3940	50/50	0.3940
315126	1ROARAP2	1.7251	50/50	1.7251
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.9177	Adder	5.79
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.9177	Adder	5.79
315136	1ROSEMG1	4.2161	50/50	4.2161
315137	1ROSEMS1	2.6144	50/50	2.6144
315138	1ROSEMG2	1.9760	50/50	1.9760
315139	1GASTONA	6.6275	50/50	6.6275
315141	1GASTONB	6.6275	50/50	6.6275
315294	1DOMTR10	-5.1296	Adder	-6.03
917342	Z2-044 E	0.2911	Adder	0.34
918492	AA1-063AE OP	2.9372	Adder	3.46
919692	AA2-053 E OP	2.8284	Adder	3.33
919702	AA2-057 E OP	1.7334	Adder	2.04
920592	AA2-165 E	0.2382	Adder	0.28
920672	AA2-174 E OP	0.3268	Adder	0.38
922922	AB1-081 C OP	4.5320	Adder	5.33
922923	AB1-081 E OP	1.9423	Adder	2.29
923262	AB1-132 C OP (Suspended)	29.3404	50/50	29.3404
923263	AB1-132 E OP (Suspended)	12.5744	50/50	12.5744
923572	AB1-173 C OP	3.1248	50/50	3.1248
923573	AB1-173 E OP	1.4583	50/50	1.4583
923582	AB1-173AC OP	3.1248	50/50	3.1248
923583	AB1-173AE OP	1.4583	50/50	1.4583
923911	AB2-031 C O1	3.1017	50/50	3.1017
923912	AB2-031 E O1	1.5277	50/50	1.5277
923991	AB2-040 C O1	10.1847	50/50	10.1847
923992	AB2-040 E O1	8.3329	50/50	8.3329
924022	AB2-043 E O1	1.2769	Adder	1.5
924152	AB2-059 E OP	2.7516	Adder	3.24
924162	AB2-060 E OP	1.9081	Adder	2.24
924301	AB2-077 C O1 (Suspended)	0.8971	Adder	1.06
924302	AB2-077 E O1 (Suspended)	0.5981	Adder	0.7
924311	AB2-078 C O1 (Suspended)	0.8971	Adder	1.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924312	AB2-078 E O1 (Suspended)	0.5981	Adder	0.7
924321	AB2-079 C O1 (Suspended)	0.8971	Adder	1.06
924322	AB2-079 E O1 (Suspended)	0.5981	Adder	0.7
924511	AB2-100 C	3.6931	50/50	3.6931
924512	AB2-100 E	10.5452	50/50	10.5452
925171	AB2-174 C O1	1.7279	50/50	1.7279
925172	AB2-174 E O1	9.0630	50/50	9.0630
925591	AC1-034 C	3.4597	Adder	4.07
925592	AC1-034 E	2.6099	Adder	3.07
925611	AC1-036 C	0.3376	Adder	0.4
925612	AC1-036 E	0.5508	Adder	0.65
925781	AC1-054 C O1	4.7648	Adder	5.61
925782	AC1-054 E O1	2.1950	Adder	2.58
926071	AC1-086 C	43.2072	50/50	43.2072
926072	AC1-086 E	19.6650	50/50	19.6650
927141	AC1-208 C	5.1597	Adder	6.07
927142	AC1-208 E	2.2911	Adder	2.7
934331	AD1-057 C O1	12.9067	50/50	12.9067
934332	AD1-057 E O1	6.8850	50/50	6.8850
936261	AD2-033 C	4.8479	Adder	5.7
936262	AD2-033 E	3.2319	Adder	3.8
936361	AD2-046 C O1	4.6384	Adder	5.46
936362	AD2-046 E O1	2.1330	Adder	2.51
936401	AD2-051 C O1	43.0702	50/50	43.0702
936402	AD2-051 E O1	18.4939	50/50	18.4939
936481	AD2-063 C O1	6.2340	Adder	7.33
936482	AD2-063 E O1	4.1214	Adder	4.85
938173	AE1-026 BAT	15.6372	Merchant Transmission	15.6372
939181	AE1-148 C O1	4.5450	Adder	5.35
939182	AE1-148 E O1	3.0300	Adder	3.56
940241	AE2-006	0.1718	Adder	0.2
940481	AE2-033 C	28.1080	50/50	28.1080
940482	AE2-033 E	18.9492	50/50	18.9492
940571	AE2-044 C	2.2660	Adder	2.67
940572	AE2-044 E	0.9711	Adder	1.14
940661	AE2-053 O1	1.6833	Adder	1.98
942451	AE2-258	1.0653	Adder	1.25
942471	AE2-260 C O1	26.1191	50/50	26.1191
942472	AE2-260 E O1	37.0469	50/50	37.0469
943911	AF1-059	13.9527	Adder	16.41
944141	AF1-082	1.4567	Adder	1.71
946011	AF1-266	23.5286	50/50	23.5286
946281	AF1-292 C	2.2878	50/50	2.2878
946282	AF1-292 E	1.5424	50/50	1.5424
959231	AF2-214 C	2.5950	Adder	5.76
959232	AF2-214 E	3.8903	Adder	8.64
959311	AF2-222 C	3.0332	Adder	6.73
959312	AF2-222 E	2.0323	Adder	4.51
960081	AF2-299 C	3.8559	50/50	3.8559
960082	AF2-299 E	2.5706	50/50	2.5706

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960122	AF2-303 E O1	3.3703	Adder	7.48
960331	AF2-324 C O1	2.1929	Adder	4.87
960332	AF2-324 E O1	1.1774	Adder	2.61
960351	AF2-326 C	0.6749	Adder	1.5
960352	AF2-326 E	0.1687	Adder	0.37
960811	AF2-372 C	0.3003	Adder	0.67
960812	AF2-372 E	0.4901	Adder	1.09
WEC	WEC	0.1188	Confirmed LTF	0.1188
LGEE	LGEE	0.2248	Confirmed LTF	0.2248
CPL	CPL	1.1808	Confirmed LTF	1.1808
CBM-W2	CBM-W2	4.6355	Confirmed LTF	4.6355
NY	NY	0.1615	Confirmed LTF	0.1615
CBM-W1	CBM-W1	4.4411	Confirmed LTF	4.4411
TVA	TVA	0.9674	Confirmed LTF	0.9674
O-066	O-066	2.3117	Confirmed LTF	2.3117
CBM-S2	CBM-S2	7.9880	Confirmed LTF	7.9880
CBM-S1	CBM-S1	5.4102	Confirmed LTF	5.4102
G-007	G-007	0.3609	Confirmed LTF	0.3609
MADISON	MADISON	0.2540	Confirmed LTF	0.2540
MEC	MEC	0.7103	Confirmed LTF	0.7103

11.6.34 Index 34

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
98564506	940480	AE2-033 TAP	DVP	314435	6SAPONY	DVP	1	DVP_P7-1: LN 2058-2181	tower	830.0	128.86	130.37	DC	27.65

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

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
98021166	957790	AF2-073 TAP	DVP	957820	AF2-076 TAP	DVP	1	DVP_P1-2: LN 2092	single	571.52	169.21	170.83	DC	9.28

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

11.6.36 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
98021154	957820	AF2-076 TAP	DVP	314537	6SUFFOLK	DVP	1	DVP_P1-2: LN 2092	single	571.52	174.0	175.62	DC	9.28

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
MEC	MEC	1.9799	Confirmed LTF	1.9799
AA2-074	AA2-074	2.5717	LTF	2.5717

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
AC1-083	Smith Mountain-Bearskin 138kV	Active

Queue Number	Project Name	Status
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
AC1-189	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
AC2-078	Disputanta-Waverly 115kV	Active
AC2-079	Ivor-Oakridge 115kV	Active
AC2-084	Dawson-South Justice 115kV	Active
AC2-100	Halifax-Person 230kV	Active
AD1-017	Smith Mountain-Bearskin 138 kV	Active
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-025	Hopewell-Surry 230 kV	Active
AD1-055	Crystal Hill-Halifax 115 kV	Engineering and Procurement
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-058	Halifax-Person 230 kV	Engineering and Procurement
AD1-076	Trowbridge 230 kV	Active
AD1-082	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
AD2-022	East Danville-Roxborough 230 kV	Active
AD2-023	E. Danville-Roxborough 230 kV	Active
AD2-033	Chase City-Lunenburg 115 kV	Active
AD2-046	Boydton DP-Kerr Dam 115 kV	Active
AD2-051	Earleys – Northampton 230kV	Active
AD2-063	Central-Chase City 115kV	Active
AD2-085	Myrtle-Windsor DP 115kV	Active
AD2-097	Spruance NUG 230kV	In Service
AD2-202	Clover-Sedge Hill 230kV	Active
AD2-215	Kings Fork 34.5 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
AE1-075	Powhatan 34.5 kV	Engineering and Procurement
AE1-085	Bakers Pond-Bell Ave 115 kV	Active
AE1-103	Holland-Union Camp 115 kV	Active
AE1-148	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
AE1-176	Roanoke-Vinton 12 kV (Niagara Hydro)	In Service

Queue Number	Project Name	Status
AE1-250	Smith Mountain-E. Danville 138 kV	Active
AE2-000B	N/A	N/A
AE2-006	Twittys Creek 34.5 kV	Engineering and Procurement
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
AE2-052	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
AE2-147	Swamp 230 kV	Active
AE2-150	Bakers Pond-Bell Ave 115 kV	Active
AE2-151	Earleys 34.5kV	Engineering and Procurement
AE2-212	Harrowgate 34 kV	Active
AE2-225	Suffolk 34 kV	Engineering and Procurement
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
AE2-258	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
AF1-152	Swamp 230 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
AF2-065	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

Queue Number	Project Name	Status
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
AF2-256	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
AF2-304	Surry-Hopewell 230 kV	Active
AF2-324	Edgecombe 230 kV	Active
AF2-326	Battleboro 34.5kV	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_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: 218T2160	CONTINGENCY 'DVP_P4-2: 218T2160' /* EVERETTS 230 KV OPEN BRANCH FROM BUS 304451 TO BUS 314574 CKT 1 /* 6GREENVILE 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 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_P1-3: 6HATHAWAY-TX#1	CONTINGENCY 'DVP_P1-3: 6HATHAWAY-TX#1' OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 1 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 END

Contingency Name	Contingency Definition
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 56-2012-B	CONTINGENCY 'DVP_P7-1: LN 56-2012-B' /* . OPEN BRANCH FROM BUS 313723 TO BUS 314604 CKT 1 /* 3PECAN 115.00 - 3SEABORD 115.00 OPEN BRANCH FROM BUS 314558 TO BUS 314587 CKT 1 /* 3BOYKINS 115.00 - 3MARGTSV 115.00 OPEN BRANCH FROM BUS 314587 TO BUS 314604 CKT 1 /* 3MARGTSV 115.00 - 3SEABORD 115.00 OPEN BUS 314587 /* ISLAND: 3MARGTSV 115.00 OPEN BUS 314604 /* ISLAND: 3SEABORD 115.00 OPEN BRANCH FROM BUS 936400 TO BUS 314569 CKT 1 /* AD2-051 TAP - 6EARLEYS 230.00 END
DVP_P1-2: LN 40-B	CONTINGENCY 'DVP_P1-2: LN 40-B' OPEN BRANCH FROM BUS 943910 TO BUS 314721 CKT 1 /* AF1-059 TAP 115.00 - 3SO HILL 115.00 OPEN BRANCH FROM BUS 314681 TO BUS 314708 CKT 1 /* 3CHASCTY 115.00 - 3NORVIEW 115.00 OPEN BRANCH FROM BUS 314708 TO BUS 314721 CKT 1 /* 3NORVIEW 115.00 - 3SO HILL 115.00 OPEN BUS 314708 /* ISLAND: 3NORVIEW 115.00 OPEN BUS 314721 /* ISLAND: 3SO HILL 115.00 END
DVP_P4-5: L722	CONTINGENCY 'DVP_P4-5: L722' /* LOCKS 115 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 314302 TO BUS 314314 CKT 1 /* 3HARVELL 115.00 - 3LOCKS 115.00 END

Contingency Name	Contingency Definition
DVP_P7-1: LN 2058-2181	CONTINGENCY 'DVP_P7-1: LN 2058-2181' /* . OPEN BRANCH FROM BUS 304222 TO BUS 313845 CKT 1 /* 6ROCKYMT230T230.00 - 6HATHAWAY 230.00 OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 2 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 OPEN BUS 304226 /* ISLAND: 6PA-RMOUNT#4115.00 OPEN BRANCH FROM BUS 304226 TO BUS 314591 CKT 1 /* 6PA-RMOUNT#4230.00 - 6NASH 230.00 OPEN BRANCH FROM BUS 313845 TO BUS 314591 CKT 1 /* 6HATHAWAY 230.00 - 6NASH 230.00 OPEN BUS 314591 /* ISLAND: 6NASH 230.00 END
DVP_P1-2: LN 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: 246T2034	CONTINGENCY 'DVP_P4-2: 246T2034' /* EARLEYS 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 314569 TO BUS 314620 CKT 1 /* 6EARLEYS 230.00 - 6CASHIE 230.00 OPEN BRANCH FROM BUS 933990 TO BUS 314620 CKT 1 /* AD1-023 TAP 230.00 - 6CASHIE 230.00 OPEN BUS 314620 /* ISLAND: 6CASHIE 230.00 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

Contingency Name	Contingency Definition
DVP_P1-2: LN 126	CONTINGENCY 'DVP_P1-2: LN 126' OPEN BRANCH FROM BUS 314568 TO BUS 314582 CKT 1 /* 3EARLEYS 115.00 - 3KELFORD 115.00 OPEN BRANCH FROM BUS 314582 TO BUS 314602 CKT 1 /* 3KELFORD 115.00 - 3SAMS HD 115.00 OPEN BRANCH FROM BUS 314602 TO BUS 314603 CKT 1 /* 3SAMS HD 115.00 - 3SCOT NK 115.00 OPEN BUS 314582 /* ISLAND: 3KELFORD 115.00 OPEN BUS 917332 /* ISLAND: Z2-043 E 115.00 OPEN BUS 314602 /* ISLAND: 3SAMS HD 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_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

Contingency Name	Contingency Definition
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
AEP_P4_#11111_05J.FERR 765_B1	CONTINGENCY 'AEP_P4_#11111_05J.FERR 765_B1' OPEN BRANCH FROM BUS 242514 TO BUS 242520 CKT 1 / 242514 05J.FERR 765 242520 05J.FERR 500 1 OPEN BRANCH FROM BUS 242514 TO BUS 242684 CKT 2 / 242514 05J.FERR 765 242684 05J.FERR 138 2 OPEN BRANCH FROM BUS 242520 TO BUS 306719 CKT 1 / 242520 05J.FERR 500 306719 8ANTIOCH 500 1 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: 23872	CONTINGENCY 'DVP_P4-2: 23872' /* CARSON 230 KV 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 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
AEP_P1-2_#1377	CONTINGENCY 'AEP_P1-2_#1377' OPEN BRANCH FROM BUS 242514 TO BUS 242520 CKT 1 / 242514 05J.FERR 765 242520 05J.FERR 500 1 OPEN BRANCH FROM BUS 242520 TO BUS 306719 CKT 1 / 242520 05J.FERR 500 306719 8ANTIOCH 500 1 END
Base Case	
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

Contingency Name	Contingency Definition
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 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 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

Contingency Name	Contingency Definition
DVP_P4-2: 238T2002	CONTINGENCY 'DVP_P4-2: 238T2002' /* CARSON 230 KV 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 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
AEP_P4_#11112_05J.FERR 765_A1	CONTINGENCY 'AEP_P4_#11112_05J.FERR 765_A1' OPEN BRANCH FROM BUS 242511 TO BUS 242514 CKT 1 / 242511 05BROADF 765 242514 05J.FERR 765 1 OPEN BRANCH FROM BUS 242514 TO BUS 242520 CKT 1 / 242514 05J.FERR 765 242520 05J.FERR 500 1 OPEN BRANCH FROM BUS 242520 TO BUS 306719 CKT 1 / 242520 05J.FERR 500 306719 8ANTIOCH 500 1 OPEN BRANCH FROM BUS 242566 TO BUS 242567 CKT ZB / 242566 05BROADF 138 242567 05BROADX 138 ZB END
DVP_P4-2: 2058T2167	CONTINGENCY 'DVP_P4-2: 2058T2167' /* HATHAWAY 230 KV 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 BRANCH FROM BUS 313845 TO BUS 314564 CKT 1 /* 6HATHAWAY 230.00 - 6EDGECON 230.00 END

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

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

Attachment 1: One Line Diagram