



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-087
MILFORD-CARTANZA 230 KV
119 MW Capacity / 440 MW Energy**

January 2021

Table of Contents

1	Introduction.....	5
2	Preface.....	5
3	General	6
4	Point of Interconnection.....	7
4.1	Primary Point of Interconnection	7
4.2	Secondary Point of Interconnection.....	7
5	Cost Summary	7
6	Transmission Owner Scope of Work	8
7	Schedule.....	8
8	Transmission Owner Analysis.....	9
9	Interconnection Customer Requirements.....	9
9.1	Required Relaying and Communications.....	9
9.2	Interconnection Customer Scope of Direct Connection Work	9
9.3	DPL Interconnection Customer Scope of Direct Connection Work Requirements.....	9
9.4	Special Operating Requirements.....	9
10	Revenue Metering and SCADA Requirements	10
10.1	PJM Requirements	10
10.2	Meteorological Data Reporting Requirements	10
10.3	Interconnected Transmission Owner Requirements.....	10
11	Summer Peak - Load Flow Analysis - Primary POI	11
11.1	Generation Deliverability	11
11.2	Multiple Facility Contingency	11
11.3	Contribution to Previously Identified Overloads.....	11
11.4	Potential Congestion due to Local Energy Deliverability.....	12
11.5	System Reinforcements - Summer Peak Load Flow - Primary POI.....	15
11.6	Flow Gate Details - Primary POI	21
11.6.1	Index 1	22
11.6.2	Index 2	26
11.6.3	Index 3	27
11.6.4	Index 4	31
11.6.5	Index 5	36

11.6.6	Index 6	41
11.6.7	Index 7	45
11.6.8	Index 8	50
11.6.9	Index 9	53
11.6.10	Index 10.....	56
11.6.11	Index 11.....	59
11.6.12	Index 12.....	63
11.6.13	Index 13.....	67
11.6.14	Index 14.....	71
11.6.15	Index 15.....	75
11.7	Queue Dependencies	79
11.8	Contingency Descriptions - Primary POI.....	82
12	Short Circuit Analysis - Primary POI.....	85
12.1	System Reinforcements - Short Circuit.....	85
13	Summer Peak - Load Flow Analysis - Secondary POI	86
13.1	Generation Deliverability	86
13.2	Multiple Facility Contingency	86
13.3	Contribution to Previously Identified Overloads.....	86
13.4	Potential Congestion due to Local Energy Deliverability.....	88
13.5	Flow Gate Details - Secondary POI.....	92
13.5.1	Index 1	93
13.5.2	Index 2	97
13.5.3	Index 3	100
13.5.4	Index 4	102
13.5.5	Index 5	104
13.5.6	Index 6	107
13.5.7	Index 7	114
13.5.8	Index 8	120
13.5.9	Index 9	125
13.5.10	Index 10.....	131
13.5.11	Index 11.....	136
13.5.12	Index 12.....	141
13.5.13	Index 13.....	145

13.5.14	Index 14.....	150
13.5.15	Index 15.....	154
13.5.16	Index 16.....	160
13.5.17	Index 17.....	163
13.5.18	Index 18.....	166
13.5.19	Index 19.....	169
13.5.20	Index 20.....	173
13.5.21	Index 21.....	177
13.5.22	Index 22.....	180
13.5.23	Index 23.....	183
13.5.24	Index 24.....	187
13.5.25	Index 25.....	190
13.5.26	Index 26.....	194
13.5.27	Index 27.....	198
13.5.28	Index 28.....	202
13.5.29	Index 29.....	205
13.5.30	Index 30.....	208
13.5.31	Index 31.....	211
13.5.32	Index 32.....	214
13.5.33	Index 33.....	217
13.5.34	Index 34.....	220
13.5.35	Index 35.....	222
13.5.36	Index 36.....	225
13.5.37	Index 37.....	228
13.5.38	Index 38.....	231
13.5.39	Index 39.....	233
13.6	Contingency Descriptions - Secondary POI.....	237
14	Affected Systems	244

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 DPL.

2 Preface

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

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

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

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

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

The conduct of light load analysis as required under the PJM planning process is not performed during the Generation Interconnection Feasibility Study phase of the PJM study process. Additional reinforcement requirements for this Interconnection Request may be defined during the conduct of the light load analysis which shall be performed following execution of the System Impact Study agreement.

3 General

The Interconnection Customer (IC), has proposed an Offshore Wind generating facility located in Sussex County, Delaware. The installed facilities will have a total capability of 440 MW with 119 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is October 31, 2026. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-087
Project Name	MILFORD-CARTANZA 230 KV
State	Delaware
County	Sussex
Transmission Owner	DPL
MFO	440
MWE	440
MWC	119
Fuel	Offshore Wind
Basecase Study Year	2024

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

4 Point of Interconnection

4.1 Primary Point of Interconnection

AG1-087 will have a primary point of interconnection with the DPL Transmission system via a terminal position at a new 3-breaker ring bus to be constructed on the Milford – Cartanza 230 kV line.

4.2 Secondary Point of Interconnection

AG1-087 will have a secondary point of interconnection with the DPL Transmission system via a terminal position at a new 3-breaker ring bus to be constructed on the Milford – Steele 230 kV line. A full scope of work or estimated cost is not provided for the proposed Secondary POI. Only network impacts are provided for the Secondary POI in this report.

5 Cost Summary

The AG1-087 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$ 10,347,000
Total System Network Upgrade Costs	\$447,308,315 ¹
Total Costs	\$457,655,315

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

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

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

6 Transmission Owner Scope of Work

Scope of work for this project includes cutting a new 3-breaker ring bus into the Milford-Cartanza 230kV line. Two terminals will be designated for the lines running in and out of the substation, with the 3rd terminal being designated for the generator.

Estimate: \$10,347,000

Major Equipment Included in Estimate:

• 3000A Power Circuit Breaker, 230 kV, 3 cycle	Qty. 3
• Disconnect Switch, 230 kV	Qty. 6
• Line Switch 230 kV	Qty. 3
• Relay Panel, Transmission Bus, FL/BU (20")	Qty. 3
• Control Panel, 230 kV Circuit Breaker (10")	Qty. 3
• Control Enclosure, 47'x 16'	Qty. 1
• CVT, 230 kV	Qty. 6

Estimate Assumptions:

- The required land (≥5 acres) is available for use.
- Developer responsible for land purchase for the substation, price is not included.
- Site clearing, permitting and grading performed by Developer.

The total physical interconnection costs is given in the table below:

Description	Total Cost
New 230 kV 3-breaker ring bus	\$10,347,000
Total Physical Interconnection Costs	\$10,347,000

7 Schedule

Design, procurement and construction of the necessary work scope of this project will take approximately 36-48 months from the date of execution of an ISA.

If the customer is ultimately responsible for network upgrades, then the schedule for those upgrades will be refined in future study phases. The customer would need to wait for those upgrades to be completed prior to commercial operation unless determined deliverable by an interim deliverability study. The elapsed time to complete any network upgrades is provided in the System Reinforcements table of this report.¹

8 Transmission Owner Analysis

None

9 Interconnection Customer Requirements

9.1 Required Relaying and Communications

Front line and back-up line protection will be required. One relay panel for each terminal will be required for front line and back-up protection

A breaker control relay on a breaker control panel will be required for the control and operation of each new 230 kV circuit breaker

9.2 Interconnection Customer Scope of Direct Connection Work

The IC is responsible for all design and construction related to activities on their side of the Point of Interconnection. Site preparation, including grading and an access road, as necessary, is assumed to be by the IC. Route selection, line design, and right-of-way acquisition of the direct connect facilities is not included in this report and is the responsibility of the IC. Protective relaying and metering design and installation must comply with DPL's applicable standards. The IC is also required to provide revenue metering and real-time telemetering data to PJM in conformance with the requirements contained in PJM Manuals M-01 and M-14 and the PJM Tariff.

9.3 DPL Interconnection Customer Scope of Direct Connection Work Requirements

DPL requires that an IC circuit breaker is located within 500 feet of the DPL substation to facilitate the relay protection scheme between DPL and the IC at the Point of Interconnection (POI).

9.4 Special Operating Requirements

1. DPL will require the capability to remotely disconnect the generator from the grid by communication from its System Operations facility. Such disconnection may be facilitated by a generator breaker, or other method depending upon the specific circumstances and the evaluation by DPL.
2. DPL reserves the right to charge the Interconnection Customer operation and maintenance expenses to maintain the Interconnection Customer attachment facilities, including metering and telecommunications facilities, owned by DPL.

3. Interconnection Customer shall design its non-synchronous generation facility with the ability to maintain a power factor between 0.95 leading and 0.95 lagging measured at the point of interconnection.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Wind speed (meters/second) - (Required)
- Wind direction (decimal degrees from true north) - (Required)
- Ambient air temperature (Fahrenheit) - (Required)
- Air Pressure (Hectopascals) - (Required)
- Humidity (Percent) (Accepted, not required)

10.3 Interconnected Transmission Owner Requirements

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

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

11 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AG1-087 was evaluated as a 440 MW (Capacity 119 MW) injection tapping the Milford - Cartanza 230 kV Line in the DPL area. Project AG1-087 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-087 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC DC	MW IMPAC T
167820046	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1-2_CKT 23033-B	single	790.0	98.3	113.34	DC	118.77
167820077	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	CKT 23032B	single	804.0	96.59	111.36	DC	118.77

11.2 Multiple Facility Contingency

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

None

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC DC	MW IMPAC T
167577644	200066	PCHBTM1N	500.0	PECO	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	single	3609.0	103.43	104.02	DC	45.04
165231365	213490	CHICHST2	230.0	PECO	213496	CHIREACT_53	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	117.23	119.04	DC	32.89
165231366	213496	CHIREACT_53	230.0	PECO	213972	TRAINER	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	117.23	119.04	DC	32.89
165231339	213559	DELCOTAP	230.0	PECO	228401	MCKLTON	230.0	AE	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	725.0	131.6	133.69	DC	32.72
165231391	213973	TRAINER2	230.0	PECO	213559	DELCOTAP	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	110.31	112.12	DC	32.89
167820095	231000	CLAY_230	230.0	DP&L	214235	LINWOOD 84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	116.82	117.67	DC	17.32
167820096	231000	CLAY_230	230.0	DP&L	214235	LINWOOD 84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	116.72	117.57	DC	17.3

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS T LOADING %	POST PROJECTIONS T LOADING %	AC DC	MW IMPACT
167820106	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD 85	230.0	PECO	1	PECO_P1-2_220-84	single	804.0	115.31	116.13	DC	16.76
167820107	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD 85	230.0	PECO	1	PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L	single	804.0	114.91	115.73	DC	16.71
167820126	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	115.73	116.48	DC	15.42
167820127	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	115.63	116.38	DC	15.4
165231690	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	102.58	105.35	DC	49.4
164868342	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P7_1_DBL_1NC B_FSA	tower	790.0	152.45	175.47	DC	183.32
164868397	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	115.62	134.99	DC	218.03
166669854	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P7_1_DBL_1NC B_FSA	tower	348.0	181.93	190.68	DC	70.1
166669864	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P7_1_DBL_1NC B_FSA	tower	348.0	162.2	170.96	DC	70.1
166669849	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P7_1_DBL_1NC B_FSA	tower	348.0	187.66	196.42	DC	70.1

11.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS T LOADING %	POST PROJECTIONS T LOADING %	AC DC	MW IMPACT
167577749	200012	NEWFRDM	500.0	PSE&G	200028	WINDSOR	500.0	JCP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	2983.0	112.29	114.29	DC	127.95
167577821	200014	SALEM	500.0	PSE&G	200063	ORCHARD	500.0	AE	1	PJM500_PS_P1-2_5023	operation	2598.0	105.49	106.63	DC	64.58
167577617	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PECO	1	JC-P1-2-JCC-500-003	operation	2905.0	133.49	137.02	DC	223.21
167577706	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	TS_P1-2_#T6	operation	3620.0	118.44	120.81	DC	181.49
167577708	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	Base Case	operation	2920.0	104.53	106.8	DC	140.21

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 PROJECTIONS LOADIN G %	POST PROJECTIONS LOADIN G %	AC/D C	MW IMPACT
167577643	200066	PCHBTM1N	500.0	PECO	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	3609.0	129.7	131.89	DC	166.54
167577816	213489	CHICHST1	230.0	PECO	213588	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	operation	1079.0	105.85	107.8	DC	45.5
167577758	213750	LINWOOD43	230.0	PECO	214221	CHIREACT_43	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L	operation	1770.0	113.22	114.96	DC	66.04
167577796	214220	CHIREACT_39	230.0	PECO	213490	CHICHST2	230.0	PECO	1	PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	operation	1770.0	108.07	109.8	DC	65.81
167577762	214221	CHIREACT_43	230.0	PECO	213489	CHICHST1	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L	operation	1770.0	113.18	114.92	DC	66.04
167577766	214234	LINWOOD97	230.0	PECO	214216	POST97	230.0	PECO	1	PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	operation	1770.0	113.05	114.78	DC	65.81
167577792	214287	POST39	230.0	PECO	214220	CHIREACT_39	230.0	PECO	1	PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	operation	1770.0	108.1	109.83	DC	65.81
167577669	219100	NEWFRDM	230.0	PSE&G	219704	HILLTOP_4	230.0	PSE&G	1	JC-P1-2-JCC-500-003	operation	740.0	127.1	128.55	DC	23.14
167577841	219702	HILLTOP_2	230.0	PSE&G	219101	BEAVERBK_1	230.0	PSE&G	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	740.0	102.76	104.48	DC	28.2
167820093	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	150.13	153.79	DC	64.05
167820097	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	Base Case	operation	650.0	105.32	108.02	DC	38.18
167820104	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	PECO_P1-2_220-84	operation	804.0	147.54	151.08	DC	61.98
167820108	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	Base Case	operation	650.0	102.89	105.24	DC	33.13
167820124	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	145.39	148.65	DC	57.02
167820128	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	Base Case	operation	650.0	102.77	105.04	DC	32.21
167820314	231002	HARMONY	230.0	DP&L	231001	EDGE MR 5	230.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	924.0	109.65	114.31	DC	96.58

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 PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
167820407	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	804.0	97.46	100.95	DC	62.96
167820281	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	378.0	116.13	120.71	DC	39.36
167820175	232000	STEELE	230.0	DP&L	231003	KEEN_230	230.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	552.0	125.75	132.96	DC	89.35
167820337	232000	STEELE	230.0	DP&L	923960	AB2-037 TAP	230.0	DP&L	2	DPL_P1_2_C KT 23001	operation	727.0	101.96	108.49	DC	106.52
167820029	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	678.0	161.96	173.33	DC	196.14
167820031	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	550.0	133.97	137.67	DC	125.49
167820044	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1_2_C KT 23031	operation	790.0	141.36	163.6	DC	176.88
167820045	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	141.16	162.32	DC	138.34
167820012	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	158.12	192.31	DC	187.94
167820014	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	Base Case	operation	550.0	103.16	127.6	DC	134.35
167820109	232004	MILF_230	230.0	DP&L	232002	CEDAR CK	230.0	DP&L	1	CKT 23032B	operation	738.0	121.45	142.6	DC	157.47
167577735	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_PS_P1-2_5015	operation	1117.0	106.65	114.07	DC	112.42
167820184	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	PJM500_PS_P1-2_HOPE-SILVER	operation	678.0	106.4	124.91	DC	126.44
167820307	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	2	PJM500_PS_P1-2_HOPE-SILVER	operation	790.0	91.71	107.61	DC	126.61
167820165	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	348.0	131.87	137.24	DC	46.39
167820166	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	Base Case	operation	280.0	127.86	133.22	DC	33.28
167820273	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	348.0	114.81	120.19	DC	46.39
167820275	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	Base Case	operation	273.0	109.28	114.78	DC	33.28
167820115	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	Base Case	operation	273.0	141.74	147.24	DC	33.28
167820116	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	348.0	140.27	145.65	DC	46.39
169557748	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P1_2_C KT 23001	operation	727.0	115.63	122.16	DC	106.52
169557750	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	Base Case	operation	650.0	97.76	103.23	DC	79.75
167820075	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	CKT 23032B	operation	804.0	96.78	151.4	DC	439.14
167820076	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	Base Case	operation	650.0	90.79	137.06	DC	300.81
167820292	962380	AG1-087 TAP	230.0	DP&L	232003	CARTANZA	230.0	DP&L	1	CKT 23030B	operation	804.0	88.01	111.75	DC	194.36

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
165231391	7	TRAINER2 230.0 kV - DELCOTAP 230.0 kV Ckt 1	PECO: pe022 (152) : Rebuild 0.82 miles of 230 kV line from Trainer to Delco Tap with bundled 1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$4,000,000 Time Estimate : 16.0 Months pe031 (160) : Replace 1 disconnect switch at Delco Tap Project Type : FAC Cost : \$250,000 Time Estimate : 6.0 Months pe032 (161) : Replace 3 relays at Trainer Project Type : FAC Cost : \$400,000 Time Estimate : 6.0 Months	\$4,650,000
167820046,164 868342	1	CARTANZA 230.0 kV - SILVER RUN 230.0 kV Ckt 1	DPL: dt23032r0001 (203) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$65,000,000 Time Estimate : 48-60 Months dt23032r0002 (204) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$67,000,000 Time Estimate : 48-60 Months ds23032r0001 (205) : Replace 3000A CBs at Cartanza with 4000A CBs Project Type : FAC Cost : \$1,000,000 Time Estimate : 12-18 Months ds23032r0002 (210) : Upgrade relaying at Cartanza Project Type : FAC Cost : \$300,000 Time Estimate : 12.0 Months	\$133,300,000
165231339	6	DELCOTAP 230.0 kV - MCKLTON 230.0 kV Ckt 1	ACE: ACEMickDelcorebuildr01 (1573) : To mitigate the (ACE)Mickleton to Delco Tap 230 kV line (from bus 228401 to bus 213559 ckt 1) overload, it will require rebuilding 7.6 miles of 230 kV to a higher capacity Project Type : FAC Cost : \$19,000,000 Time Estimate : 36-42 Months ACEMickDelcostrandctdisclr01 (1574) : To mitigate the (ACE)Mickleton to Delco Tap 230 kV line (from bus 228401 to bus 213559 ckt 1) overload, it will require a 230 kV strand bus and CT at Mickleton. Project Type : FAC Cost : \$400,000 Time Estimate : 12-32 Months	\$19,400,000

ID	Idx	Facility	Upgrade Description	Cost
167577644	3	PCHBTM1N 500.0 kV - FUR RUN_500 500.0 kV Ckt 1	PECO: pe028 (157) : Upgrade 5 disconnect switches, 6 station conductors, 1 relay, 1 amp meter and 1 line trap @ Peach Bottom Project Type : FAC Cost : \$3,000,000 Time Estimate : 16.0 Months pe029 (158) : Expand Peach Bottom 500 kV station to build a new 500 kV line between Beach Bottom and Furnace Run. (The estimated cost is for PECO portion only, right of way cost not included) Project Type : CON Cost : \$82,110,000 Time Estimate : 84.0 Months	\$83,110,000
165231690	11	KEEN_230 230.0 kV - HARMONY 230.0 kV Ckt 2	DPL: dt23010r0001 (1347) : Rebuild Harmony - Keeney 230kV line. Rebuild will include installation of new poles, foundations, insulators, and conductor (Bundled 1590 ACSR). Project Type : FAC Cost : \$14,000,000 Time Estimate : 36-48 Months	\$14,000,000
167820077	2	AG1-087 TAP 230.0 kV - MILF_230 230.0 kV Ckt 1	DPL: dt23033r0001 (1353) : Rebuild AG1-087 Tap to Milford 230kV Line (~3.5mi.) with new poles, insulators, foundations, conductor and OPGW Project Type : FAC Cost : \$9,500,000 Time Estimate : 36-48 Months	\$9,500,000

ID	Idx	Facility	Upgrade Description	Cost
167820106,167820107	9	EDGE MR 5 230.0 kV - LINWOOD85 230.0 kV Ckt 1	PECO: pe024 (154): Rebuild 8.64 miles of 230 kV line from Linwood to Edgemoor with 2x1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$25,080,000 Time Estimate : 36.0 Months b2985 (1291): PJM baseline upgrade b2985: Replace the 230 kV CB #225 at Linwood Substation (PECO) with a double circuit breaker (back to back circuit breakers in one device). The baseline project has a projected in-service date of 06/01/2022. Project Type : CON Cost : \$0 Time Estimate : 0.0 Months DPL: dt22085r0001 (1316): To mitigate the (DPL) Edge Moor - (PECO) Linwood 230 kV line (from bus 231001 to 214236) overload it will require increasing the emergency rating of the Edge Moor - Linwood 230 kV line by rebuilding the line with new poles, foundations, insulators and OPGW Project Type : FAC Cost : \$20,000,000 Time Estimate : 36-48 Months ds22085r0001 (1350): Terminal upgrades at the Edge Moor 230kV Substation (upgrade 2000A Line Trap to 3000A Line trap) Project Type : FAC Cost : \$200,000 Time Estimate : 12.0 Months	\$90,560,000
164868397	12	HOPE CREEK 230.0 kV - HOPE CRK 500.0 kV Ckt 1	PSEG: Facility owned by LS Power (208) : This facility is owned by LS Power. LS Power, will not evaluate this violation until the impact study phase. Project Type : FAC Cost : N/A Time Estimate : Months r_PS_I025a_HC230500 (1545) : Upgrade Hope Creek 500/230kV transformer terminal equipment to achieve a SER of 1748 MVA Project Type : FAC Cost : \$1,608,315 Time Estimate : 15.0 Months	\$1,608,315

ID	Idx	Facility	Upgrade Description	Cost
166669864	14	MIDLTNTP 138.0 kV - MT PLSNT 138.0 kV Ckt 1	DPL: ds13808r0001 (1278) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months ds13808r0002 (1279) : Upgrade circuit breaker and associated Current Transformers and Switches from 2000A to 3000A at Mt. Pleasant Substation Project Type : FAC Cost : \$400,000 Time Estimate : 12.0 Months dt13808r0003 (1320) : To mitigate the (DPL) Mt. Pleasant - Middletown Tap 138 kV line (from bus 232104 to 232106) overload is will require increasing the emergency rating of the line by rebuilding the line with new poles, conductor, foundations, insulators and OPGW. In addition, terminal upgrades will be required at Mt. Pleasant Project Type : FAC Cost : \$7,500,000 Time Estimate : 36-48 Months	\$8,000,000
167820126,167 820127	10	EDGE MR 5 230.0 kV - CLAY_230 230.0 kV Ckt 1	DPL: dt23015r0001 (1304) : To mitigate the (DP&L) Edge Moor to Claymont 230 kV line (from bus 231000 to bus 231001 ckt 1) overload, it will require increasing the emergency rating of the Edge Moor to Claymont 230 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor. In addition, terminal equipment will need to be upgraded at Claymont and Edge Moor Substations Project Type : FAC Cost : \$23,000,000 Time Estimate : 36-48 Months	\$23,000,000
166669849	15	TOWNSEND 138.0 kV - MIDLTNTP 138.0 kV Ckt 1	DPL: ds13808r0001 (1278) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months dt13808r0004 (1336) : Rebuild the 13808-1 line from Townsend - Middletown Tap with new poles, conductor, foundations, insulators, and OPGW. Terminal equipment at Townsend would also need to be upgraded Project Type : FAC Cost : \$7,500,000 Time Estimate : 36-48 Months ds13808r0003 (1339) : Upgrade terminal equipment at Townsend Substation Project Type : FAC Cost : \$300,000 Time Estimate : 12.0 Months	\$7,900,000

ID	Idx	Facility	Upgrade Description	Cost
165231365	4	CHICHST2 230.0 kV - CHIREACT_53 230.0 kV Ckt 1	PECO: pe023 (153) : Rebuild 2 miles of 230 kV line from Chichester to Trainer with 2x1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$9,900,000 Time Estimate : 36.0 Months pe034 (163) : Replace 1 line trap at Trainer Project Type : FAC Cost : \$90,000 Time Estimate : 6.0 Months pe035 (164) : Replace 7 relays at Chichester & Trainer Project Type : FAC Cost : \$900,000 Time Estimate : 24.0 Months	\$13,880,000
165231366	5	CHIREACT_53 230.0 kV - TRAINER 230.0 kV Ckt 1	pe036 (165) : Replace 1 line trap at Chichester Project Type : FAC Cost : \$90,000 Time Estimate : 6.0 Months pe037 (166) : Replace 2 Circuit breakers at Trainer Project Type : FAC Cost : \$1,600,000 Time Estimate : 12.0 Months pe038 (167) : Replace 12 CTs at Chichester & Trainer Project Type : FAC Cost : \$1,300,000 Time Estimate : 24.0 Months	

ID	Idx	Facility	Upgrade Description	Cost
166669854	13	CHURCH 138.0 kV - TOWNSEND 138.0 kV Ckt 1	DPL: ds13833r0001 (1298) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require substation reinforcements at Church Substation. Project Type : FAC Cost : \$500,000 Time Estimate : 24-36 Months ds13833r0002 (1299) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require substation reinforcements (on top of ds13833r001) at Church Substation. Project Type : FAC Cost : \$200,000 Time Estimate : 24.0 Months ds13833r0003 (1300) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require substation reinforcements (on top of ds13833r001, ds13833r002) at Church Substation. Project Type : FAC Cost : \$100,000 Time Estimate : 12-18 Months dt13833r0001 (1301) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require a rebuild of the 13833 Church to Townsend 138 kV Line along with substation reinforcements (on top of ds13833r001, ds13833r002, ds13833r003) at Church and Townsend Substations Project Type : FAC Cost : \$26,000,000 Time Estimate : 48-60 Months	\$26,800,000
167820095,167820096	8	CLAY_230 230.0 kV - LINWOOD84 230.0 kV Ckt 1	PECO: pe025 (155) : Rebuild 1.55 miles of 230 kV line from Linwood to Claymont with 2x1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$4,500,000 Time Estimate : 36.0 Months DPL: dt22084r0001 (1314) : To mitigate the (DPL) Claymont - (PECO) Linwood line (from bus 213750 to 231000) overload, it will require increasing the emergency rating of the Claymont - Linwood 230 kV line by rebuilding the line with new poles, foundations, insulators and OPGW and replacing terminal equipment at Claymont Project Type : FAC Cost : \$7,100,000 Time Estimate : 36-48 Months	\$11,600,000
			TOTAL COST	\$447,308,315

11.6 Flow Gate Details - Primary POI

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
16486834 2	23200 3	CARTANZ A	DP&L	23201 3	SILVE R RUN	PJM	1	DPL_P7_1_DBL_1NCB_FS A	towe r	790.0	152.45	175.47	DC	183.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	3.6565	Adder	4.3
232407	W1-004 E	3.6565	Adder	4.3
232409	W1-005 E	3.6565	Adder	4.3
232411	W1-006 E	3.6565	Adder	4.3
232412	X1-032 E	1.1745	Adder	1.38
232418	X3-008 E	3.3865	Adder	3.98
232423	X3-066 E	0.5827	Adder	0.69
232425	Y1-079 E	1.3965	Adder	1.64
232427	Y1-080 E	0.5881	Adder	0.69
232429	Y3-058 E	1.7612	Adder	2.07
232432	Z2-076 C	0.2217	50/50	0.2217
232433	Z2-076 E	0.7080	50/50	0.7080
232434	Z2-077 C	0.2217	50/50	0.2217
232435	Z2-077 E	0.7080	50/50	0.7080
232616	GEN FOOD	1.5837	50/50	1.5837
232851	DUP-SFR1	2.7717	Adder	3.26
232901	NORTHST	4.7928	50/50	4.7928
232904	IR4	23.2894	50/50	23.2894
232920	IR10	0.9005	50/50	0.9005
232922	MR3 (Deactivation : 01/06/2021)	67.3618	50/50	67.3618
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.2346	50/50	0.2346
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.6372	50/50	0.6372
233916	AB1-141 E	1.1818	Adder	1.39
233919	AB1-142 E	1.1818	Adder	1.39
233920	W3-032A-CTG1	20.1091	50/50	20.1091
233921	W3-032A-STG1	12.1072	50/50	12.1072
917082	CHERRYDALE E	3.6574	Adder	4.3
918835	AA1-102 E	27.2786	Adder	32.09
919831	AA2-069 (Suspended)	297.8449	50/50	297.8449
923921	AB2-032 C	2.5513	Adder	3.0
923922	AB2-032 E	1.2006	Adder	1.41
923951	AB2-036 C	8.0155	Adder	9.43
923952	AB2-036 E	13.1142	Adder	15.43
924681	AB2-120 C	13.1921	50/50	13.1921
924682	AB2-120 E	21.5239	50/50	21.5239
924781	AB2-130 C O1	9.1851	Adder	10.81
924782	AB2-130 E O1	14.9862	Adder	17.63
924801	AB2-133 C O1	4.3282	Adder	5.09
924802	AB2-133 E O1	5.4894	Adder	6.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924821	AB2-135 C	5.3552	Adder	6.3
924822	AB2-135 E	6.1074	Adder	7.19
924831	AB2-136 C	6.8664	Adder	8.08
924832	AB2-136 E	7.2817	Adder	8.57
924971	AB2-153 C	1.4257	Adder	1.68
924972	AB2-153 E	2.3262	Adder	2.74
925151	AB2-172 C	5.1890	Adder	6.1
925152	AB2-172 E	8.4663	Adder	9.96
925261	AB2-180 C	4.0422	Adder	4.76
925262	AB2-180 E	1.7324	Adder	2.04
925271	AB2-185 C	3.1535	Adder	3.71
925272	AB2-185 E	1.3515	Adder	1.59
927031	AC1-190 C	9.5822	Adder	11.27
927032	AC1-190 E	4.1066	Adder	4.83
927191	AC1-213 C	0.9301	Adder	1.09
927192	AC1-213 E	0.6104	Adder	0.72
930201	AB1-056 C	23.0797	50/50	23.0797
930202	AB1-056 E	65.7269	50/50	65.7269
931261	AB1-176 C	0.3013	Adder	0.35
931262	AB1-176 E	0.4969	Adder	0.58
932161	AC2-023 C	7.6175	Adder	8.96
932162	AC2-023 E	5.5478	Adder	6.53
933641	AC2-186 C	4.6095	Adder	5.42
933642	AC2-186 E	7.5208	Adder	8.85
936611	AD2-076 C O1	3.6668	Adder	4.31
936612	AD2-076 E O1	5.9827	Adder	7.04
938651	AE1-087 C	4.3697	Adder	5.14
938652	AE1-087 E	1.0924	Adder	1.29
938895	AE1-117 C	16.9934	50/50	16.9934
938896	AE1-117 E	45.3158	50/50	45.3158
939151	AE1-145	5.9009	Adder	6.94
941021	AE2-093 C	4.2623	Adder	5.01
941022	AE2-093 E	6.9543	Adder	8.18
941181	AE2-112 C	1.2722	Adder	1.5
941182	AE2-112 E	2.0756	Adder	2.44
942441	AE2-257 C	11.6988	50/50	11.6988
942442	AE2-257 E	30.8424	50/50	30.8424
943361	AF1-007 C	0.6809	50/50	0.6809
943362	AF1-007 E	1.9353	50/50	1.9353
943441	AF1-015 C	1.6060	Adder	1.89
943442	AF1-015 E	2.2178	Adder	2.61
943651	AF1-036 C	1.6542	Adder	1.95
943652	AF1-036 E	2.2844	Adder	2.69
945661	AF1-231 C	2.2416	Adder	2.64
945662	AF1-231 E	3.3623	Adder	3.96
945791	AF1-244	2.3465	Adder	2.76
945931	AF1-258	0.9239	Adder	1.09
945941	AF1-259	0.1596	Adder	0.19
957611	AF2-055 C	10.3233	Adder	12.15
957612	AF2-055 E	4.4243	Adder	5.21
957661	AF2-060	2.6554	Adder	3.12
957671	AF2-061 O1	11.8017	Adder	13.88

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959021	AF2-193 C	42.6472	50/50	42.6472
959022	AF2-193 E	115.0400	50/50	115.0400
959031	AF2-194 C	42.6472	50/50	42.6472
959032	AF2-194 E	115.0400	50/50	115.0400
959051	AF2-196 C	3.1906	50/50	3.1906
959052	AF2-196 E	7.4447	50/50	7.4447
959161	AF2-207 C O1	5.8168	Adder	6.84
959162	AF2-207 E O1	8.7252	Adder	10.26
959571	AF2-248 C	0.9837	Adder	1.16
959572	AF2-248 E	1.0994	Adder	1.29
959581	AF2-249 C	0.1736	Adder	0.2
959582	AF2-249 E	0.6944	Adder	0.82
959591	AF2-250 C	0.3182	Adder	0.37
959592	AF2-250 E	0.2459	Adder	0.29
960221	AF2-313 C	2.5342	Adder	2.98
960222	AF2-313 E	1.4367	Adder	1.69
960341	AF2-325 C	1.1572	Adder	1.36
960342	AF2-325 E	1.5980	Adder	1.88
960671	AF2-358 C O1	16.8371	Adder	19.81
960672	AF2-358 E O1	11.2248	Adder	13.21
960871	AF2-378 C	0.3066	Adder	0.36
960872	AF2-378 E	0.4254	Adder	0.5
960881	AF2-379 C	0.4787	Adder	0.56
960882	AF2-379 E	0.6597	Adder	0.78
960941	AF2-385 C	13.7919	Adder	16.23
960942	AF2-385 E	7.8481	Adder	9.23
960961	AF2-387 C O1	16.3042	Adder	19.18
960962	AF2-387 E O1	8.1766	Adder	9.62
961181	AF2-409 O1	28.5031	Adder	33.53
962161	AG1-061 C O1	9.8520	Adder	21.87
962162	AG1-061 E O1	6.5680	Adder	14.58
962261	AG1-072	6.4874	Adder	14.4
962302	AG1-079 E	0.1462	Adder	0.32
962381	AG1-087 C O1	49.5802	50/50	49.5802
962382	AG1-087 E O1	133.7414	50/50	133.7414
963001	AG1-149	0.4664	Adder	1.04
963011	AG1-150	13.8844	50/50	13.8844
964551	AG1-318 C	0.1061	50/50	0.1061
964552	AG1-318 E	0.2476	50/50	0.2476
964962	AG1-360 E	1.3617	Adder	3.02
965321	AG1-397 C	0.6508	Adder	1.44
965322	AG1-397 E	0.8978	Adder	1.99
965611	AG1-429 C O1	5.5120	Adder	12.24
965612	AG1-429 E O1	3.6736	Adder	8.15
965821	AG1-450	3.7104	Adder	8.24
965921	AG1-461 C O1	2.9786	Adder	6.61
965922	AG1-461 E O1	1.6038	Adder	3.56
965951	AG1-464 C O1	2.5716	Adder	5.71
965952	AG1-464 E O1	3.8575	Adder	8.56
966281	AG1-497 C O1	55.4744	50/50	55.4744
966282	AG1-497 E O1	23.7748	50/50	23.7748
966601	AG1-529 C	7.2988	Adder	16.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966602	AG1-529 E	3.8957	Adder	8.65
CALDERWOOD	CALDERWOOD	0.1839	Confirmed LTF	0.1839
NY	NY	0.2229	Confirmed LTF	0.2229
PRAIRIE	PRAIRIE	0.9557	Confirmed LTF	0.9557
O-066	O-066	2.8199	Confirmed LTF	2.8199
SIGE	SIGE	0.0050	Confirmed LTF	0.0050
CHEOAH	CHEOAH	0.1852	Confirmed LTF	0.1852
COTTONWOOD	COTTONWOOD	0.7770	Confirmed LTF	0.7770
G-007	G-007	0.4536	Confirmed LTF	0.4536
HAMLET	HAMLET	0.2131	Confirmed LTF	0.2131
GIBSON	GIBSON	0.2026	Confirmed LTF	0.2026
BLUEG	BLUEG	0.6441	Confirmed LTF	0.6441
TRIMBLE	TRIMBLE	0.2065	Confirmed LTF	0.2065
CATAWBA	CATAWBA	0.1291	Confirmed LTF	0.1291

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
167820077	962380	AG1-087 TAP	DP&L	232004	MILF_230	DP&L	1	CKT 23032B	single	804.0	96.59	111.36	DC	118.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232616	GEN FOOD	2.3934	80/20	2.3934
232901	NORTHST	7.2432	80/20	7.2432
232922	MR3 (Deactivation : 01/06/2021)	101.8011	80/20	101.8011
233920	W3-032A-CTG1	30.3901	80/20	30.3901
233921	W3-032A-STG1	18.2970	80/20	18.2970
919831	AA2-069 (Suspended)	450.1206	80/20	450.1206
962381	AG1-087 C O1	118.7680	80/20	118.7680
966281	AG1-497 C O1	83.8362	80/20	83.8362
CALDERWOOD	CALDERWOOD	0.0969	Confirmed LTF	0.0969
NY	NY	0.1078	Confirmed LTF	0.1078
PRAIRIE	PRAIRIE	0.5037	Confirmed LTF	0.5037
CHEOAH	CHEOAH	0.0976	Confirmed LTF	0.0976
COTTONWOOD	COTTONWOOD	0.4095	Confirmed LTF	0.4095
HAMLET	HAMLET	0.1126	Confirmed LTF	0.1126
GIBSON	GIBSON	0.1065	Confirmed LTF	0.1065
BLUEG	BLUEG	0.3385	Confirmed LTF	0.3385
TRIMBLE	TRIMBLE	0.1085	Confirmed LTF	0.1085
CATAWBA	CATAWBA	0.0682	Confirmed LTF	0.0682

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
167577644	200066	PCHBTM1N	PECO	270072	FUR RUN_500	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	single	3609.0	103.43	104.02	DC	45.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	113.5087	80/20	113.5087
200035	PCHBTM 3	115.2827	80/20	115.2827
200052	ROCKSP 1	11.2414	80/20	11.2414
200053	ROCKSP 2	11.1743	80/20	11.1743
200054	ROCKSP 3	11.3421	80/20	11.3421
200055	ROCKSP 4	11.3421	80/20	11.3421
200192	DELTA CT1	11.0135	80/20	11.0135
200193	DELTA CT2	11.0135	80/20	11.0135
200194	DELTA CT3	11.0135	80/20	11.0135
200195	DELTA ST	17.0048	80/20	17.0048
200200	DELTA2 CT1	19.7362	80/20	19.7362
200201	DELTA2 CT2	19.7362	80/20	19.7362
200202	DELTA2 ST	33.6572	80/20	33.6572
200203	Y1-065-STG	38.3517	80/20	38.3517
200204	Y1-065-CTG1	22.1773	80/20	22.1773
200205	Y1-065-CTG2	22.1773	80/20	22.1773
213792	MDYRN1-2	21.1001	80/20	21.1001
213793	MDYRN3-4	21.1791	80/20	21.1791
213794	MDYRN5-6	21.1203	80/20	21.1203
213795	MDYRN7-8	21.1994	80/20	21.1994
228102	BLE#2 ST (Deactivation : 30/04/2019)	36.1365	Adder	42.51
228251	CARLLS#4	1.1694	Adder	1.38
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.4134	Adder	0.49
231903	GEN4	3.5077	Adder	4.13
231904	DC1 NUG	9.0883	Adder	10.69
231905	DC2 NUG	9.0883	Adder	10.69
231911	HR5	7.6619	80/20	7.6619
231912	HR6	7.6619	80/20	7.6619
231913	HR7	7.6619	80/20	7.6619
231914	HR8	11.6460	80/20	11.6460
232907	VN8	9.1597	80/20	9.1597
232912	OH NUG1	2.1661	80/20	2.1661
232913	OH NUG2	2.1372	80/20	2.1372
232914	OH NUG3	2.1661	80/20	2.1661
232915	OH NUG4	2.1661	80/20	2.1661
232916	OH NUG5	2.1661	80/20	2.1661

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232917	OH NUG6	2.1565	80/20	2.1565
232918	OH NUG7	2.1517	80/20	2.1517
232919	VN10	0.6884	80/20	0.6884
232922	MR3 (Deactivation : 01/06/2021)	32.7509	Adder	38.53
232926	CRISFLD1	0.5981	80/20	0.5981
233923	AA1-102 C	3.4090	80/20	3.4090
233931	AB2-179 C	11.6991	Adder	13.76
919831	AA2-069 (Suspended)	144.8105	Adder	170.37
923921	AB2-032 C	4.2990	Adder	5.06
923951	AB2-036 C	11.1570	Adder	13.13
923961	AB2-037 C	29.2587	80/20	29.2587
924051	AB2-049 C	0.2732	Adder	0.32
924531	AB2-102 C	55.5103	Adder	65.31
924681	AB2-120 C	12.2423	Adder	14.4
924781	AB2-130 C O1	10.3975	Adder	12.23
924801	AB2-133 C O1	7.7591	Adder	9.13
924821	AB2-135 C	9.4605	Adder	11.13
924831	AB2-136 C	7.9859	Adder	9.4
924971	AB2-153 C	2.4024	Adder	2.83
925151	AB2-172 C	6.1158	Adder	7.2
925261	AB2-180 C	4.5100	Adder	5.31
925271	AB2-185 C	4.4698	Adder	5.26
926131	AC1-091 C	2.4039	Adder	2.83
926141	AC1-092 C	2.4039	Adder	2.83
926151	AC1-093 C	2.2757	Adder	2.68
926161	AC1-094 C	1.9231	Adder	2.26
927031	AC1-190 C	11.2666	Adder	13.25
927191	AC1-213 C	1.0308	Adder	1.21
930201	AB1-056 C	20.7317	Adder	24.39
931261	AB1-176 C	0.4791	Adder	0.56
932161	AC2-023 C	8.5370	Adder	10.04
933631	AC2-185 C	4.8719	Adder	5.73
933641	AC2-186 C	6.0957	Adder	7.17
934661	AD1-097 1	2.5379	Adder	2.99
934671	AD1-097 2	2.5379	Adder	2.99
934681	AD1-097 3	2.5370	Adder	2.98
934691	AD1-097 4	1.5018	Adder	1.77
936451	AD2-059 C	0.0738	Adder	0.09
936501	AD2-065 C	0.2570	Adder	0.3
936611	AD2-076 C O1	5.9006	Adder	6.94
937011	AD2-135 C	0.1445	Adder	0.17
938421	AE1-061 C	0.6585	Adder	0.77
938431	AE1-062 C	2.3826	Adder	2.8
938651	AE1-087 C	5.1502	Adder	6.06
938781	AE1-104 C O1	33.4936	Adder	39.4
938814	AE1-107 C	9.5640	Adder	11.25
938871	AE1-115 C	2.4296	Adder	2.86
938896	AE1-117 E	41.2069	Adder	48.48
939151	AE1-145	6.4433	Adder	7.58
939301	AE1-161 C	4.8018	Adder	5.65
939501	AE1-179 C O1	8.5433	Adder	10.05
939821	AE1-218 C O1	0.1918	Adder	0.23

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939931	AE1-229 C O1	21.5777	Adder	25.39
940001	AE1-240 C O1	7.0797	Adder	8.33
941021	AE2-093 C	5.3788	Adder	6.33
941181	AE2-112 C	2.0472	Adder	2.41
942441	AE2-257 C	10.6237	Adder	12.5
943071	AE2-334 C	6.3454	Adder	7.47
943361	AF1-007 C	0.6116	Adder	0.72
943441	AF1-015 C	2.0267	Adder	2.38
943651	AF1-036 C	2.6619	Adder	3.13
944721	AF1-137 C O1	1.5972	Adder	1.88
944951	AF1-160 C	2.3826	Adder	2.8
945091	AF1-174 C O1	3.2485	Adder	3.82
945431	AF1-208 C O1	6.5708	Adder	7.73
945661	AF1-231 C	2.4485	Adder	2.88
945731	AF1-238 C O1	12.4527	Adder	14.65
945741	AF1-239 C	2.9301	Adder	3.45
945791	AF1-244	3.0326	80/20	3.0326
945931	AF1-258	1.0309	Adder	1.21
945941	AF1-259	0.2538	Adder	0.3
945971	AF1-262	0.2172	Adder	0.26
957221	AF2-016 C	28.4590	Adder	33.48
957251	AF2-019 C	1.9408	Adder	2.28
957261	AF2-020 C	1.9489	Adder	2.29
957291	AF2-023 C	4.1305	Adder	4.86
957301	AF2-024 C	2.2823	Adder	2.69
957441	AF2-038 C	1.9591	Adder	2.3
957611	AF2-055 C	11.2758	Adder	13.27
957661	AF2-060	2.8995	Adder	3.41
957671	AF2-061 O1	12.8867	Adder	15.16
958811	AF2-172 C (Withdrawn : 01/14/2021)	0.9267	Adder	1.09
959021	AF2-193 C	38.3085	Adder	45.07
959031	AF2-194 C	38.3085	Adder	45.07
959051	AF2-196 C	2.8974	Adder	3.41
959161	AF2-207 C O1	6.4933	Adder	7.64
959571	AF2-248 C	1.0952	Adder	1.29
959581	AF2-249 C	0.1933	Adder	0.23
959591	AF2-250 C	0.3543	Adder	0.42
960221	AF2-313 C	4.0291	Adder	4.74
960341	AF2-325 C	1.3522	Adder	1.59
960671	AF2-358 C O1	19.3285	Adder	22.74
960871	AF2-378 C	0.3574	Adder	0.42
960881	AF2-379 C	0.6217	80/20	0.6217
960941	AF2-385 C	15.3959	Adder	18.11
960961	AF2-387 C O1	21.3754	Adder	25.15
961181	AF2-409 O1	37.9460	80/20	37.9460
961621	AG1-001 C	1.5231	Adder	3.38
962161	AG1-061 C O1	11.1927	Adder	24.85
962261	AG1-072	8.5052	Adder	18.88
962381	AG1-087 C O1	20.2917	Adder	45.04
962611	AG1-110	2.5256	Adder	5.61
962621	AG1-111	1.2877	Adder	2.86
962801	AG1-129 C O1	4.6546	Adder	10.33

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963001	AG1-149	1.1372	80/20	1.1372
963011	AG1-150	6.8299	Adder	15.16
964001	AG1-254 C	3.2504	Adder	7.22
964011	AG1-255 C	5.1534	Adder	11.44
964371	AG1-299 C	0.2340	Adder	0.52
964381	AG1-300 C	0.3900	Adder	0.87
964551	AG1-318 C	0.0512	Adder	0.11
965321	AG1-397 C	0.7152	Adder	1.59
965611	AG1-429 C O1	6.0206	Adder	13.36
965821	AG1-450	4.2680	Adder	9.47
965921	AG1-461 C O1	3.3269	Adder	7.38
965951	AG1-464 C O1	3.4007	Adder	7.55
966281	AG1-497 C O1	14.2948	Adder	31.73
966301	AG1-499 C	0.9639	Adder	2.14
966601	AG1-529 C	8.3326	Adder	18.5
G-007A	G-007A	46.4803	Confirmed LTF	46.4803
VFT	VFT	115.2293	Confirmed LTF	115.2293
CALDERWOOD	CALDERWOOD	4.2459	Confirmed LTF	4.2459
PRAIRIE	PRAIRIE	21.5500	Confirmed LTF	21.5500
CHEOAH	CHEOAH	4.2793	Confirmed LTF	4.2793
CBM-N	CBM-N	18.8676	Confirmed LTF	18.8676
COTTONWOOD	COTTONWOOD	17.7576	Confirmed LTF	17.7576
HAMLET	HAMLET	5.1172	Confirmed LTF	5.1172
GIBSON	GIBSON	4.5252	Confirmed LTF	4.5252
BLUEG	BLUEG	14.3914	Confirmed LTF	14.3914
TRIMBLE	TRIMBLE	4.6117	Confirmed LTF	4.6117
CATAWBA	CATAWBA	3.0646	Confirmed LTF	3.0646

11.6.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165231365	213490	CHICHST2	PECO	213496	CHIREACT_53	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	117.23	119.04	DC	32.89

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.3302	50/50	10.3302
213889	PHLISCT2	10.3302	50/50	10.3302
213890	PHLISCT3	10.3474	50/50	10.3474
213893	PHLISST1	15.1800	50/50	15.1800
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0513	Adder	-0.06
219727	Z1-082 BAT	0.0710	Merchant Transmission	0.0710
227881	GRENWCHG	-0.1506	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1099	Adder	-0.13
231505	HR4	8.5374	50/50	8.5374
231900	EM5	20.7330	50/50	20.7330
231903	GEN4	0.9317	Adder	1.1
231904	DC1 NUG	2.4140	Adder	2.84
231905	DC2 NUG	2.4140	Adder	2.84
231909	HR2	4.0470	50/50	4.0470
231916	EM3	2.7843	50/50	2.7843
232405	W1-003 E	0.8396	Adder	0.99
232407	W1-004 E	0.8396	Adder	0.99
232409	W1-005 E	0.8396	Adder	0.99
232411	W1-006 E	0.8396	Adder	0.99
232412	X1-032 E	0.2721	Adder	0.32
232418	X3-008 E	0.8839	Adder	1.04
232423	X3-066 E	0.2259	Adder	0.27
232425	Y1-079 E	0.4751	Adder	0.56
232427	Y1-080 E	0.1473	Adder	0.17
232429	Y3-058 E	0.4173	Adder	0.49
232433	Z2-076 E	0.1331	Adder	0.16
232435	Z2-077 E	0.1331	Adder	0.16
232851	DUP-SFR1	0.6610	Adder	0.78
232922	MR3 (Deactivation : 01/06/2021)	5.9077	Adder	6.95
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1186	Adder	0.14
233916	AB1-141 E	0.4951	Adder	0.58
233919	AB1-142 E	0.4951	Adder	0.58
233931	AB2-179 C	3.2326	Adder	3.8
917082	CHERRYDALE E	0.8394	Adder	0.99
918835	AA1-102 E	6.3327	Adder	7.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919831	AA2-069 (Suspended)	26.1215	Adder	30.73
923921	AB2-032 C	1.0687	Adder	1.26
923922	AB2-032 E	0.5029	Adder	0.59
923951	AB2-036 C	2.6773	Adder	3.15
923952	AB2-036 E	4.3803	Adder	5.15
923961	AB2-037 C	5.8473	Adder	6.88
923962	AB2-037 E	9.5524	Adder	11.24
924681	AB2-120 C	2.5711	Adder	3.02
924682	AB2-120 E	4.1949	Adder	4.94
924781	AB2-130 C O1	2.1665	Adder	2.55
924782	AB2-130 E O1	3.5348	Adder	4.16
924801	AB2-133 C O1	1.9197	Adder	2.26
924802	AB2-133 E O1	2.4348	Adder	2.86
924821	AB2-135 C	2.2429	Adder	2.64
924822	AB2-135 E	2.5579	Adder	3.01
924831	AB2-136 C	1.7528	Adder	2.06
924832	AB2-136 E	1.8588	Adder	2.19
924971	AB2-153 C	0.5972	Adder	0.7
924972	AB2-153 E	0.9744	Adder	1.15
925151	AB2-172 C	1.3543	Adder	1.59
925152	AB2-172 E	2.2097	Adder	2.6
925254	AB2-179 E	1.0548	Adder	1.24
925261	AB2-180 C	0.9577	Adder	1.13
925262	AB2-180 E	0.4104	Adder	0.48
925271	AB2-185 C	1.0728	Adder	1.26
925272	AB2-185 E	0.4598	Adder	0.54
926131	AC1-091 C	0.4247	Adder	0.5
926132	AC1-091 E	0.6965	Adder	0.82
926141	AC1-092 C	0.4247	Adder	0.5
926142	AC1-092 E	0.6965	Adder	0.82
926151	AC1-093 C	0.4021	Adder	0.47
926152	AC1-093 E	0.6625	Adder	0.78
926161	AC1-094 C	0.3398	Adder	0.4
926162	AC1-094 E	0.5606	Adder	0.66
927031	AC1-190 C	2.4910	Adder	2.93
927032	AC1-190 E	1.0676	Adder	1.26
927191	AC1-213 C	0.2176	Adder	0.26
927192	AC1-213 E	0.1428	Adder	0.17
930201	AB1-056 C	4.2270	Adder	4.97
930202	AB1-056 E	12.0378	Adder	14.16
930722	AB1-116 E	-0.0445	Adder	-0.05
931261	AB1-176 C	0.1168	Adder	0.14
931262	AB1-176 E	0.1926	Adder	0.23
932161	AC2-023 C	1.8200	Adder	2.14
932162	AC2-023 E	1.3255	Adder	1.56
933631	AC2-185 C	0.8607	Adder	1.01
933632	AC2-185 E	1.4043	Adder	1.65
933641	AC2-186 C	1.2322	Adder	1.45
933642	AC2-186 E	2.0105	Adder	2.37
934661	AD1-097 1	3.4825	50/50	3.4825
934671	AD1-097 2	3.4825	50/50	3.4825
934681	AD1-097 3	3.4883	50/50	3.4883

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934691	AD1-097 4	2.0649	50/50	2.0649
936451	AD2-059 C	0.0280	Adder	0.03
936452	AD2-059 E	0.0877	Adder	0.1
936611	AD2-076 C O1	1.4547	Adder	1.71
936612	AD2-076 E O1	2.3734	Adder	2.79
938423	AE1-061 BAT	0.3609	Merchant Transmission	0.3609
938651	AE1-087 C	1.1405	Adder	1.34
938652	AE1-087 E	0.2851	Adder	0.34
938814	AE1-107 C	2.7159	Adder	3.2
938815	AE1-107 E	1.9362	Adder	2.28
938873	AE1-115 BAT	1.6266	Merchant Transmission	1.6266
938895	AE1-117 C	3.1636	Adder	3.72
938896	AE1-117 E	8.4364	Adder	9.93
939151	AE1-145	1.3534	Adder	1.59
939303	AE1-161 BAT	3.4900	Merchant Transmission	3.4900
939821	AE1-218 C O1	-0.0485	Adder	-0.06
941021	AE2-093 C	1.2582	Adder	1.48
941022	AE2-093 E	2.0528	Adder	2.42
941181	AE2-112 C	0.5047	Adder	0.59
941182	AE2-112 E	0.8234	Adder	0.97
942441	AE2-257 C	2.1733	Adder	2.56
942442	AE2-257 E	5.7296	Adder	6.74
943361	AF1-007 C	0.1247	Adder	0.15
943362	AF1-007 E	0.3544	Adder	0.42
943441	AF1-015 C	0.4741	Adder	0.56
943442	AF1-015 E	0.6547	Adder	0.77
943651	AF1-036 C	0.6562	Adder	0.77
943652	AF1-036 E	0.9062	Adder	1.07
945661	AF1-231 C	0.5145	Adder	0.61
945662	AF1-231 E	0.7717	Adder	0.91
945791	AF1-244	0.5447	Adder	0.64
945931	AF1-258	0.2189	Adder	0.26
945941	AF1-259	0.0619	Adder	0.07
945991	AF1-264	-0.0780	Adder	-0.09
957263	AF2-020 BAT	1.3218	Merchant Transmission	1.3218
957293	AF2-023 BAT	3.4587	Merchant Transmission	3.4587
957303	AF2-024 BAT	2.5606	Merchant Transmission	2.5606
957611	AF2-055 C	2.3693	Adder	2.79
957612	AF2-055 E	1.0154	Adder	1.19
957661	AF2-060	0.6090	Adder	0.72
957671	AF2-061 O1	2.7067	Adder	3.18
959021	AF2-193 C	7.8108	Adder	9.19
959022	AF2-193 E	21.0695	Adder	24.79
959031	AF2-194 C	7.8108	Adder	9.19
959032	AF2-194 E	21.0695	Adder	24.79
959051	AF2-196 C	0.5927	Adder	0.7
959052	AF2-196 E	1.3830	Adder	1.63
959161	AF2-207 C O1	1.3673	Adder	1.61
959162	AF2-207 E O1	2.0509	Adder	2.41
959571	AF2-248 C	0.2308	Adder	0.27
959572	AF2-248 E	0.2580	Adder	0.3
959581	AF2-249 C	0.0407	Adder	0.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959582	AF2-249 E	0.1629	Adder	0.19
959591	AF2-250 C	0.0747	Adder	0.09
959592	AF2-250 E	0.0577	Adder	0.07
960221	AF2-313 C	0.9825	Adder	1.16
960222	AF2-313 E	0.5570	Adder	0.66
960341	AF2-325 C	0.2977	Adder	0.35
960342	AF2-325 E	0.4112	Adder	0.48
960671	AF2-358 C O1	4.2039	Adder	4.95
960672	AF2-358 E O1	2.8026	Adder	3.3
960871	AF2-378 C	0.0786	Adder	0.09
960872	AF2-378 E	0.1090	Adder	0.13
960881	AF2-379 C	0.1118	Adder	0.13
960882	AF2-379 E	0.1541	Adder	0.18
960941	AF2-385 C	3.2419	Adder	3.81
960942	AF2-385 E	1.8447	Adder	2.17
960961	AF2-387 C O1	5.0581	Adder	5.95
960962	AF2-387 E O1	2.5366	Adder	2.98
961181	AF2-409 O1	7.0295	Adder	8.27
962161	AG1-061 C O1	2.3712	Adder	5.26
962162	AG1-061 E O1	1.5808	Adder	3.51
962261	AG1-072	2.0126	Adder	4.47
962302	AG1-079 E	0.0560	Adder	0.12
962381	AG1-087 C O1	4.0078	Adder	8.9
962382	AG1-087 E O1	10.8111	Adder	24.0
962622	AG1-111 BAT	0.8621	Merchant Transmission	0.8621
963001	AG1-149	0.1083	Adder	0.24
963011	AG1-150	1.4346	Adder	3.18
964003	AG1-254 BAT	0.8124	Merchant Transmission	0.8124
964013	AG1-255 BAT	1.2429	Merchant Transmission	1.2429
964083	AG1-263 BAT	0.8039	Merchant Transmission	0.8039
964551	AG1-318 C	0.0105	Adder	0.02
964552	AG1-318 E	0.0245	Adder	0.05
964962	AG1-360 E	0.3154	Adder	0.7
965321	AG1-397 C	0.1499	Adder	0.33
965322	AG1-397 E	0.2068	Adder	0.46
965611	AG1-429 C O1	1.2651	Adder	2.81
965612	AG1-429 E O1	0.8431	Adder	1.87
965821	AG1-450	0.9296	Adder	2.06
965921	AG1-461 C O1	0.6903	Adder	1.53
965922	AG1-461 E O1	0.3717	Adder	0.83
965951	AG1-464 C O1	0.6875	Adder	1.53
965952	AG1-464 E O1	1.0312	Adder	2.29
966281	AG1-497 C O1	2.5786	Adder	5.72
966282	AG1-497 E O1	1.1051	Adder	2.45
966601	AG1-529 C	1.6663	Adder	3.7
966602	AG1-529 E	0.8894	Adder	1.97
CPL	CPL	0.0430	Confirmed LTF	0.0430
CBM-W2	CBM-W2	0.0090	Confirmed LTF	0.0090
NY	NY	0.9030	Confirmed LTF	0.9030
PRAIRIE	PRAIRIE	0.0129	Confirmed LTF	0.0129
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	15.6742	Confirmed LTF	15.6742

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
SIGE	SIGE	0.2436	Confirmed LTF	0.2436
CBM-S2	CBM-S2	0.4907	Confirmed LTF	0.4907
CBM-S1	CBM-S1	0.0023	Confirmed LTF	0.0023
G-007	G-007	2.7836	Confirmed LTF	2.7836
GIBSON	GIBSON	0.0060	Confirmed LTF	0.0060
BLUEG	BLUEG	0.0191	Confirmed LTF	0.0191
TRIMBLE	TRIMBLE	0.0061	Confirmed LTF	0.0061
LAGN	LAGN	0.0140	Confirmed LTF	0.0140

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
165231366	213496	CHIREACT_53	PECO	213972	TRAINER	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	117.23	119.04	DC	32.89

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.3302	50/50	10.3302
213889	PHLISCT2	10.3302	50/50	10.3302
213890	PHLISCT3	10.3474	50/50	10.3474
213893	PHLISST1	15.1800	50/50	15.1800
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0513	Adder	-0.06
219727	Z1-082 BAT	0.0710	Merchant Transmission	0.0710
227881	GRENWCHG	-0.1506	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1099	Adder	-0.13
231505	HR4	8.5374	50/50	8.5374
231900	EM5	20.7330	50/50	20.7330
231903	GEN4	0.9317	Adder	1.1
231904	DC1 NUG	2.4140	Adder	2.84
231905	DC2 NUG	2.4140	Adder	2.84
231909	HR2	4.0470	50/50	4.0470
231916	EM3	2.7843	50/50	2.7843
232405	W1-003 E	0.8396	Adder	0.99
232407	W1-004 E	0.8396	Adder	0.99
232409	W1-005 E	0.8396	Adder	0.99
232411	W1-006 E	0.8396	Adder	0.99
232412	X1-032 E	0.2721	Adder	0.32
232418	X3-008 E	0.8839	Adder	1.04
232423	X3-066 E	0.2259	Adder	0.27
232425	Y1-079 E	0.4751	Adder	0.56
232427	Y1-080 E	0.1473	Adder	0.17
232429	Y3-058 E	0.4173	Adder	0.49
232433	Z2-076 E	0.1331	Adder	0.16
232435	Z2-077 E	0.1331	Adder	0.16
232851	DUP-SFR1	0.6610	Adder	0.78
232922	MR3 (Deactivation : 01/06/2021)	5.9077	Adder	6.95
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1186	Adder	0.14
233916	AB1-141 E	0.4951	Adder	0.58
233919	AB1-142 E	0.4951	Adder	0.58
233931	AB2-179 C	3.2326	Adder	3.8
917082	CHERRYDALE E	0.8394	Adder	0.99
918835	AA1-102 E	6.3327	Adder	7.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919831	AA2-069 (Suspended)	26.1215	Adder	30.73
923921	AB2-032 C	1.0687	Adder	1.26
923922	AB2-032 E	0.5029	Adder	0.59
923951	AB2-036 C	2.6773	Adder	3.15
923952	AB2-036 E	4.3803	Adder	5.15
923961	AB2-037 C	5.8473	Adder	6.88
923962	AB2-037 E	9.5524	Adder	11.24
924681	AB2-120 C	2.5711	Adder	3.02
924682	AB2-120 E	4.1949	Adder	4.94
924781	AB2-130 C O1	2.1665	Adder	2.55
924782	AB2-130 E O1	3.5348	Adder	4.16
924801	AB2-133 C O1	1.9197	Adder	2.26
924802	AB2-133 E O1	2.4348	Adder	2.86
924821	AB2-135 C	2.2429	Adder	2.64
924822	AB2-135 E	2.5579	Adder	3.01
924831	AB2-136 C	1.7528	Adder	2.06
924832	AB2-136 E	1.8588	Adder	2.19
924971	AB2-153 C	0.5972	Adder	0.7
924972	AB2-153 E	0.9744	Adder	1.15
925151	AB2-172 C	1.3543	Adder	1.59
925152	AB2-172 E	2.2097	Adder	2.6
925254	AB2-179 E	1.0548	Adder	1.24
925261	AB2-180 C	0.9577	Adder	1.13
925262	AB2-180 E	0.4104	Adder	0.48
925271	AB2-185 C	1.0728	Adder	1.26
925272	AB2-185 E	0.4598	Adder	0.54
926131	AC1-091 C	0.4247	Adder	0.5
926132	AC1-091 E	0.6965	Adder	0.82
926141	AC1-092 C	0.4247	Adder	0.5
926142	AC1-092 E	0.6965	Adder	0.82
926151	AC1-093 C	0.4021	Adder	0.47
926152	AC1-093 E	0.6625	Adder	0.78
926161	AC1-094 C	0.3398	Adder	0.4
926162	AC1-094 E	0.5606	Adder	0.66
927031	AC1-190 C	2.4910	Adder	2.93
927032	AC1-190 E	1.0676	Adder	1.26
927191	AC1-213 C	0.2176	Adder	0.26
927192	AC1-213 E	0.1428	Adder	0.17
930201	AB1-056 C	4.2270	Adder	4.97
930202	AB1-056 E	12.0378	Adder	14.16
930722	AB1-116 E	-0.0445	Adder	-0.05
931261	AB1-176 C	0.1168	Adder	0.14
931262	AB1-176 E	0.1926	Adder	0.23
932161	AC2-023 C	1.8200	Adder	2.14
932162	AC2-023 E	1.3255	Adder	1.56
933631	AC2-185 C	0.8607	Adder	1.01
933632	AC2-185 E	1.4043	Adder	1.65
933641	AC2-186 C	1.2322	Adder	1.45
933642	AC2-186 E	2.0105	Adder	2.37
934661	AD1-097 1	3.4825	50/50	3.4825
934671	AD1-097 2	3.4825	50/50	3.4825
934681	AD1-097 3	3.4883	50/50	3.4883

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934691	AD1-097 4	2.0649	50/50	2.0649
936451	AD2-059 C	0.0280	Adder	0.03
936452	AD2-059 E	0.0877	Adder	0.1
936611	AD2-076 C O1	1.4547	Adder	1.71
936612	AD2-076 E O1	2.3734	Adder	2.79
938423	AE1-061 BAT	0.3609	Merchant Transmission	0.3609
938651	AE1-087 C	1.1405	Adder	1.34
938652	AE1-087 E	0.2851	Adder	0.34
938814	AE1-107 C	2.7159	Adder	3.2
938815	AE1-107 E	1.9362	Adder	2.28
938873	AE1-115 BAT	1.6266	Merchant Transmission	1.6266
938895	AE1-117 C	3.1636	Adder	3.72
938896	AE1-117 E	8.4364	Adder	9.93
939151	AE1-145	1.3534	Adder	1.59
939303	AE1-161 BAT	3.4900	Merchant Transmission	3.4900
939821	AE1-218 C O1	-0.0485	Adder	-0.06
941021	AE2-093 C	1.2582	Adder	1.48
941022	AE2-093 E	2.0528	Adder	2.42
941181	AE2-112 C	0.5047	Adder	0.59
941182	AE2-112 E	0.8234	Adder	0.97
942441	AE2-257 C	2.1733	Adder	2.56
942442	AE2-257 E	5.7296	Adder	6.74
943361	AF1-007 C	0.1247	Adder	0.15
943362	AF1-007 E	0.3544	Adder	0.42
943441	AF1-015 C	0.4741	Adder	0.56
943442	AF1-015 E	0.6547	Adder	0.77
943651	AF1-036 C	0.6562	Adder	0.77
943652	AF1-036 E	0.9062	Adder	1.07
945661	AF1-231 C	0.5145	Adder	0.61
945662	AF1-231 E	0.7717	Adder	0.91
945791	AF1-244	0.5447	Adder	0.64
945931	AF1-258	0.2189	Adder	0.26
945941	AF1-259	0.0619	Adder	0.07
945991	AF1-264	-0.0780	Adder	-0.09
957263	AF2-020 BAT	1.3218	Merchant Transmission	1.3218
957293	AF2-023 BAT	3.4587	Merchant Transmission	3.4587
957303	AF2-024 BAT	2.5606	Merchant Transmission	2.5606
957611	AF2-055 C	2.3693	Adder	2.79
957612	AF2-055 E	1.0154	Adder	1.19
957661	AF2-060	0.6090	Adder	0.72
957671	AF2-061 O1	2.7067	Adder	3.18
959021	AF2-193 C	7.8108	Adder	9.19
959022	AF2-193 E	21.0695	Adder	24.79
959031	AF2-194 C	7.8108	Adder	9.19
959032	AF2-194 E	21.0695	Adder	24.79
959051	AF2-196 C	0.5927	Adder	0.7
959052	AF2-196 E	1.3830	Adder	1.63
959161	AF2-207 C O1	1.3673	Adder	1.61
959162	AF2-207 E O1	2.0509	Adder	2.41
959571	AF2-248 C	0.2308	Adder	0.27
959572	AF2-248 E	0.2580	Adder	0.3
959581	AF2-249 C	0.0407	Adder	0.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959582	AF2-249 E	0.1629	Adder	0.19
959591	AF2-250 C	0.0747	Adder	0.09
959592	AF2-250 E	0.0577	Adder	0.07
960221	AF2-313 C	0.9825	Adder	1.16
960222	AF2-313 E	0.5570	Adder	0.66
960341	AF2-325 C	0.2977	Adder	0.35
960342	AF2-325 E	0.4112	Adder	0.48
960671	AF2-358 C O1	4.2039	Adder	4.95
960672	AF2-358 E O1	2.8026	Adder	3.3
960871	AF2-378 C	0.0786	Adder	0.09
960872	AF2-378 E	0.1090	Adder	0.13
960881	AF2-379 C	0.1118	Adder	0.13
960882	AF2-379 E	0.1541	Adder	0.18
960941	AF2-385 C	3.2419	Adder	3.81
960942	AF2-385 E	1.8447	Adder	2.17
960961	AF2-387 C O1	5.0581	Adder	5.95
960962	AF2-387 E O1	2.5366	Adder	2.98
961181	AF2-409 O1	7.0295	Adder	8.27
962161	AG1-061 C O1	2.3712	Adder	5.26
962162	AG1-061 E O1	1.5808	Adder	3.51
962261	AG1-072	2.0126	Adder	4.47
962302	AG1-079 E	0.0560	Adder	0.12
962381	AG1-087 C O1	4.0078	Adder	8.9
962382	AG1-087 E O1	10.8111	Adder	24.0
962622	AG1-111 BAT	0.8621	Merchant Transmission	0.8621
963001	AG1-149	0.1083	Adder	0.24
963011	AG1-150	1.4346	Adder	3.18
964003	AG1-254 BAT	0.8124	Merchant Transmission	0.8124
964013	AG1-255 BAT	1.2429	Merchant Transmission	1.2429
964083	AG1-263 BAT	0.8039	Merchant Transmission	0.8039
964551	AG1-318 C	0.0105	Adder	0.02
964552	AG1-318 E	0.0245	Adder	0.05
964962	AG1-360 E	0.3154	Adder	0.7
965321	AG1-397 C	0.1499	Adder	0.33
965322	AG1-397 E	0.2068	Adder	0.46
965611	AG1-429 C O1	1.2651	Adder	2.81
965612	AG1-429 E O1	0.8431	Adder	1.87
965821	AG1-450	0.9296	Adder	2.06
965921	AG1-461 C O1	0.6903	Adder	1.53
965922	AG1-461 E O1	0.3717	Adder	0.83
965951	AG1-464 C O1	0.6875	Adder	1.53
965952	AG1-464 E O1	1.0312	Adder	2.29
966281	AG1-497 C O1	2.5786	Adder	5.72
966282	AG1-497 E O1	1.1051	Adder	2.45
966601	AG1-529 C	1.6663	Adder	3.7
966602	AG1-529 E	0.8894	Adder	1.97
CPL	CPL	0.0430	Confirmed LTF	0.0430
CBM-W2	CBM-W2	0.0090	Confirmed LTF	0.0090
NY	NY	0.9030	Confirmed LTF	0.9030
PRAIRIE	PRAIRIE	0.0129	Confirmed LTF	0.0129
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	15.6742	Confirmed LTF	15.6742

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
SIGE	SIGE	0.2436	Confirmed LTF	0.2436
CBM-S2	CBM-S2	0.4907	Confirmed LTF	0.4907
CBM-S1	CBM-S1	0.0023	Confirmed LTF	0.0023
G-007	G-007	2.7836	Confirmed LTF	2.7836
GIBSON	GIBSON	0.0060	Confirmed LTF	0.0060
BLUEG	BLUEG	0.0191	Confirmed LTF	0.0191
TRIMBLE	TRIMBLE	0.0061	Confirmed LTF	0.0061
LAGN	LAGN	0.0140	Confirmed LTF	0.0140

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
165231339	213559	DELCOTAP	PECO	228401	MCKLTON	AE	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	725.0	131.6	133.69	DC	32.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213400	COVANTA DELA	8.4717	50/50	8.4717
213888	PHLISCT1	10.3190	50/50	10.3190
213889	PHLISCT2	10.3190	50/50	10.3190
213890	PHLISCT3	10.3359	50/50	10.3359
213893	PHLISST1	15.1631	50/50	15.1631
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0515	Adder	-0.06
219727	Z1-082 BAT	0.0714	Merchant Transmission	0.0714
227881	GRENWCHG	-0.1512	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1105	Adder	-0.13
231505	HR4	8.5257	50/50	8.5257
231900	EM5	20.7046	50/50	20.7046
231903	GEN4	0.9281	Adder	1.09
231904	DC1 NUG	2.4046	Adder	2.83
231905	DC2 NUG	2.4046	Adder	2.83
231909	HR2	4.0393	50/50	4.0393
232405	W1-003 E	0.8355	Adder	0.98
232407	W1-004 E	0.8355	Adder	0.98
232409	W1-005 E	0.8355	Adder	0.98
232411	W1-006 E	0.8355	Adder	0.98
232412	X1-032 E	0.2707	Adder	0.32
232418	X3-008 E	0.8798	Adder	1.04
232423	X3-066 E	0.2249	Adder	0.26
232425	Y1-079 E	0.4730	Adder	0.56
232427	Y1-080 E	0.1466	Adder	0.17
232429	Y3-058 E	0.4153	Adder	0.49
232433	Z2-076 E	0.1324	Adder	0.16
232435	Z2-077 E	0.1324	Adder	0.16
232851	DUP-SFR1	0.6576	Adder	0.77
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1180	Adder	0.14
233916	AB1-141 E	0.4930	Adder	0.58
233919	AB1-142 E	0.4930	Adder	0.58
233931	AB2-179 C	3.2197	Adder	3.79
917082	CHERRYDALE E	0.8352	Adder	0.98
918835	AA1-102 E	6.3011	Adder	7.41
923921	AB2-032 C	1.0642	Adder	1.25
923922	AB2-032 E	0.5008	Adder	0.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923951	AB2-036 C	2.6657	Adder	3.14
923952	AB2-036 E	4.3614	Adder	5.13
923961	AB2-037 C	5.8219	Adder	6.85
923962	AB2-037 E	9.5109	Adder	11.19
924681	AB2-120 C	2.5585	Adder	3.01
924682	AB2-120 E	4.1744	Adder	4.91
924781	AB2-130 C O1	2.1558	Adder	2.54
924782	AB2-130 E O1	3.5173	Adder	4.14
924801	AB2-133 C O1	1.9116	Adder	2.25
924802	AB2-133 E O1	2.4245	Adder	2.85
924821	AB2-135 C	2.2327	Adder	2.63
924822	AB2-135 E	2.5463	Adder	3.0
924831	AB2-136 C	1.7444	Adder	2.05
924832	AB2-136 E	1.8499	Adder	2.18
924971	AB2-153 C	0.5947	Adder	0.7
924972	AB2-153 E	0.9703	Adder	1.14
925151	AB2-172 C	1.3480	Adder	1.59
925152	AB2-172 E	2.1994	Adder	2.59
925254	AB2-179 E	1.0506	Adder	1.24
925261	AB2-180 C	0.9531	Adder	1.12
925262	AB2-180 E	0.4085	Adder	0.48
925271	AB2-185 C	1.0680	Adder	1.26
925272	AB2-185 E	0.4577	Adder	0.54
927031	AC1-190 C	2.4794	Adder	2.92
927032	AC1-190 E	1.0626	Adder	1.25
927191	AC1-213 C	0.2165	Adder	0.25
927192	AC1-213 E	0.1421	Adder	0.17
930201	AB1-056 C	4.2057	Adder	4.95
930202	AB1-056 E	11.9770	Adder	14.09
931261	AB1-176 C	0.1163	Adder	0.14
931262	AB1-176 E	0.1918	Adder	0.23
932161	AC2-023 C	1.8112	Adder	2.13
932162	AC2-023 E	1.3191	Adder	1.55
933641	AC2-186 C	1.2258	Adder	1.44
933642	AC2-186 E	2.0000	Adder	2.35
934661	AD1-097 1	3.4787	50/50	3.4787
934671	AD1-097 2	3.4787	50/50	3.4787
934681	AD1-097 3	3.4844	50/50	3.4844
934691	AD1-097 4	2.0626	50/50	2.0626
936451	AD2-059 C	0.0279	Adder	0.03
936452	AD2-059 E	0.0875	Adder	0.1
936611	AD2-076 C O1	1.4485	Adder	1.7
936612	AD2-076 E O1	2.3633	Adder	2.78
938651	AE1-087 C	1.1352	Adder	1.34
938652	AE1-087 E	0.2838	Adder	0.33
938814	AE1-107 C	2.7054	Adder	3.18
938815	AE1-107 E	1.9287	Adder	2.27
938873	AE1-115 BAT	1.6344	Merchant Transmission	1.6344
938895	AE1-117 C	3.1473	Adder	3.7
938896	AE1-117 E	8.3928	Adder	9.87
939151	AE1-145	1.3466	Adder	1.58
939303	AE1-161 BAT	3.5100	Merchant Transmission	3.5100

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939821	AE1-218 C O1	-0.0488	Adder	-0.06
941021	AE2-093 C	1.2525	Adder	1.47
941022	AE2-093 E	2.0436	Adder	2.4
941181	AE2-112 C	0.5025	Adder	0.59
941182	AE2-112 E	0.8199	Adder	0.96
942441	AE2-257 C	2.1624	Adder	2.54
942442	AE2-257 E	5.7008	Adder	6.71
943361	AF1-007 C	0.1241	Adder	0.15
943362	AF1-007 E	0.3526	Adder	0.41
943441	AF1-015 C	0.4719	Adder	0.56
943442	AF1-015 E	0.6517	Adder	0.77
943651	AF1-036 C	0.6535	Adder	0.77
943652	AF1-036 E	0.9024	Adder	1.06
945661	AF1-231 C	0.5120	Adder	0.6
945662	AF1-231 E	0.7679	Adder	0.9
945791	AF1-244	0.5420	Adder	0.64
945931	AF1-258	0.2178	Adder	0.26
945941	AF1-259	0.0616	Adder	0.07
945991	AF1-264	-0.0784	Adder	-0.09
957293	AF2-023 BAT	3.4752	Merchant Transmission	3.4752
957303	AF2-024 BAT	2.5699	Merchant Transmission	2.5699
957611	AF2-055 C	2.3574	Adder	2.77
957612	AF2-055 E	1.0103	Adder	1.19
957661	AF2-060	0.6060	Adder	0.71
957671	AF2-061 O1	2.6931	Adder	3.17
959021	AF2-193 C	7.7714	Adder	9.14
959022	AF2-193 E	20.9631	Adder	24.66
959031	AF2-194 C	7.7714	Adder	9.14
959032	AF2-194 E	20.9631	Adder	24.66
959051	AF2-196 C	0.5897	Adder	0.69
959052	AF2-196 E	1.3761	Adder	1.62
959161	AF2-207 C O1	1.3606	Adder	1.6
959162	AF2-207 E O1	2.0409	Adder	2.4
959571	AF2-248 C	0.2297	Adder	0.27
959572	AF2-248 E	0.2567	Adder	0.3
959581	AF2-249 C	0.0405	Adder	0.05
959582	AF2-249 E	0.1621	Adder	0.19
959591	AF2-250 C	0.0743	Adder	0.09
959592	AF2-250 E	0.0574	Adder	0.07
960221	AF2-313 C	0.9782	Adder	1.15
960222	AF2-313 E	0.5546	Adder	0.65
960341	AF2-325 C	0.2963	Adder	0.35
960342	AF2-325 E	0.4092	Adder	0.48
960671	AF2-358 C O1	4.1840	Adder	4.92
960672	AF2-358 E O1	2.7894	Adder	3.28
960871	AF2-378 C	0.0782	Adder	0.09
960872	AF2-378 E	0.1085	Adder	0.13
960881	AF2-379 C	0.1113	Adder	0.13
960882	AF2-379 E	0.1534	Adder	0.18
960941	AF2-385 C	3.2260	Adder	3.8
960942	AF2-385 E	1.8357	Adder	2.16
960961	AF2-387 C O1	5.0355	Adder	5.92

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960962	AF2-387 E O1	2.5253	Adder	2.97
961181	AF2-409 O1	6.9963	Adder	8.23
962161	AG1-061 C O1	2.3597	Adder	5.24
962162	AG1-061 E O1	1.5731	Adder	3.49
962261	AG1-072	2.0036	Adder	4.45
962302	AG1-079 E	0.0557	Adder	0.12
962381	AG1-087 C O1	3.9864	Adder	8.85
962382	AG1-087 E O1	10.7532	Adder	23.87
962622	AG1-111 BAT	0.8662	Merchant Transmission	0.8662
963001	AG1-149	0.1077	Adder	0.24
963011	AG1-150	1.4274	Adder	3.17
964003	AG1-254 BAT	0.8164	Merchant Transmission	0.8164
964013	AG1-255 BAT	1.2493	Merchant Transmission	1.2493
964083	AG1-263 BAT	0.8081	Merchant Transmission	0.8081
964551	AG1-318 C	0.0104	Adder	0.02
964552	AG1-318 E	0.0243	Adder	0.05
964962	AG1-360 E	0.3139	Adder	0.7
965321	AG1-397 C	0.1492	Adder	0.33
965322	AG1-397 E	0.2058	Adder	0.46
965611	AG1-429 C O1	1.2587	Adder	2.79
965612	AG1-429 E O1	0.8389	Adder	1.86
965821	AG1-450	0.9252	Adder	2.05
965921	AG1-461 C O1	0.6868	Adder	1.52
965922	AG1-461 E O1	0.3698	Adder	0.82
965951	AG1-464 C O1	0.6839	Adder	1.52
965952	AG1-464 E O1	1.0258	Adder	2.28
966601	AG1-529 C	1.6575	Adder	3.68
966602	AG1-529 E	0.8847	Adder	1.96
CPLE	CPLE	0.0164	Confirmed LTF	0.0164
CALDERWOOD	CALDERWOOD	0.0099	Confirmed LTF	0.0099
NY	NY	0.9246	Confirmed LTF	0.9246
PRAIRIE	PRAIRIE	0.1137	Confirmed LTF	0.1137
O-066	O-066	15.9366	Confirmed LTF	15.9366
SIGE	SIGE	0.2436	Confirmed LTF	0.2436
CBM-S2	CBM-S2	0.0835	Confirmed LTF	0.0835
CHEOAH	CHEOAH	0.0100	Confirmed LTF	0.0100
COTTONWOOD	COTTONWOOD	0.0651	Confirmed LTF	0.0651
G-007	G-007	2.8245	Confirmed LTF	2.8245
GIBSON	GIBSON	0.0273	Confirmed LTF	0.0273
BLUEG	BLUEG	0.0868	Confirmed LTF	0.0868
TRIMBLE	TRIMBLE	0.0278	Confirmed LTF	0.0278

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
165231391	213973	TRAINER2	PECO	213559	DELCOTAP	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	110.31	112.12	DC	32.89

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.3302	50/50	10.3302
213889	PHLISCT2	10.3302	50/50	10.3302
213890	PHLISCT3	10.3474	50/50	10.3474
213893	PHLISST1	15.1800	50/50	15.1800
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0513	Adder	-0.06
219727	Z1-082 BAT	0.0710	Merchant Transmission	0.0710
227881	GRENWCHG	-0.1506	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1099	Adder	-0.13
231505	HR4	8.5374	50/50	8.5374
231900	EM5	20.7330	50/50	20.7330
231903	GEN4	0.9317	Adder	1.1
231904	DC1 NUG	2.4140	Adder	2.84
231905	DC2 NUG	2.4140	Adder	2.84
231909	HR2	4.0470	50/50	4.0470
231916	EM3	2.7843	50/50	2.7843
232405	W1-003 E	0.8396	Adder	0.99
232407	W1-004 E	0.8396	Adder	0.99
232409	W1-005 E	0.8396	Adder	0.99
232411	W1-006 E	0.8396	Adder	0.99
232412	X1-032 E	0.2721	Adder	0.32
232418	X3-008 E	0.8839	Adder	1.04
232423	X3-066 E	0.2259	Adder	0.27
232425	Y1-079 E	0.4751	Adder	0.56
232427	Y1-080 E	0.1473	Adder	0.17
232429	Y3-058 E	0.4173	Adder	0.49
232433	Z2-076 E	0.1331	Adder	0.16
232435	Z2-077 E	0.1331	Adder	0.16
232851	DUP-SFR1	0.6610	Adder	0.78
232922	MR3 (Deactivation : 01/06/2021)	5.9077	Adder	6.95
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1186	Adder	0.14
233916	AB1-141 E	0.4951	Adder	0.58
233919	AB1-142 E	0.4951	Adder	0.58
233931	AB2-179 C	3.2326	Adder	3.8
917082	CHERRYDALE E	0.8394	Adder	0.99
918835	AA1-102 E	6.3327	Adder	7.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919831	AA2-069 (Suspended)	26.1215	Adder	30.73
923921	AB2-032 C	1.0687	Adder	1.26
923922	AB2-032 E	0.5029	Adder	0.59
923951	AB2-036 C	2.6773	Adder	3.15
923952	AB2-036 E	4.3803	Adder	5.15
923961	AB2-037 C	5.8473	Adder	6.88
923962	AB2-037 E	9.5524	Adder	11.24
924681	AB2-120 C	2.5711	Adder	3.02
924682	AB2-120 E	4.1949	Adder	4.94
924781	AB2-130 C O1	2.1665	Adder	2.55
924782	AB2-130 E O1	3.5348	Adder	4.16
924801	AB2-133 C O1	1.9197	Adder	2.26
924802	AB2-133 E O1	2.4348	Adder	2.86
924821	AB2-135 C	2.2429	Adder	2.64
924822	AB2-135 E	2.5579	Adder	3.01
924831	AB2-136 C	1.7528	Adder	2.06
924832	AB2-136 E	1.8588	Adder	2.19
924971	AB2-153 C	0.5972	Adder	0.7
924972	AB2-153 E	0.9744	Adder	1.15
925151	AB2-172 C	1.3543	Adder	1.59
925152	AB2-172 E	2.2097	Adder	2.6
925254	AB2-179 E	1.0548	Adder	1.24
925261	AB2-180 C	0.9577	Adder	1.13
925262	AB2-180 E	0.4104	Adder	0.48
925271	AB2-185 C	1.0728	Adder	1.26
925272	AB2-185 E	0.4598	Adder	0.54
926131	AC1-091 C	0.4247	Adder	0.5
926132	AC1-091 E	0.6965	Adder	0.82
926141	AC1-092 C	0.4247	Adder	0.5
926142	AC1-092 E	0.6965	Adder	0.82
926151	AC1-093 C	0.4021	Adder	0.47
926152	AC1-093 E	0.6625	Adder	0.78
926161	AC1-094 C	0.3398	Adder	0.4
926162	AC1-094 E	0.5606	Adder	0.66
927031	AC1-190 C	2.4910	Adder	2.93
927032	AC1-190 E	1.0676	Adder	1.26
927191	AC1-213 C	0.2176	Adder	0.26
927192	AC1-213 E	0.1428	Adder	0.17
930201	AB1-056 C	4.2270	Adder	4.97
930202	AB1-056 E	12.0378	Adder	14.16
930722	AB1-116 E	-0.0445	Adder	-0.05
931261	AB1-176 C	0.1168	Adder	0.14
931262	AB1-176 E	0.1926	Adder	0.23
932161	AC2-023 C	1.8200	Adder	2.14
932162	AC2-023 E	1.3255	Adder	1.56
933631	AC2-185 C	0.8607	Adder	1.01
933632	AC2-185 E	1.4043	Adder	1.65
933641	AC2-186 C	1.2322	Adder	1.45
933642	AC2-186 E	2.0105	Adder	2.37
934661	AD1-097 1	3.4825	50/50	3.4825
934671	AD1-097 2	3.4825	50/50	3.4825
934681	AD1-097 3	3.4883	50/50	3.4883

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934691	AD1-097 4	2.0649	50/50	2.0649
936451	AD2-059 C	0.0280	Adder	0.03
936452	AD2-059 E	0.0877	Adder	0.1
936611	AD2-076 C O1	1.4547	Adder	1.71
936612	AD2-076 E O1	2.3734	Adder	2.79
938423	AE1-061 BAT	0.3609	Merchant Transmission	0.3609
938651	AE1-087 C	1.1405	Adder	1.34
938652	AE1-087 E	0.2851	Adder	0.34
938814	AE1-107 C	2.7159	Adder	3.2
938815	AE1-107 E	1.9362	Adder	2.28
938873	AE1-115 BAT	1.6266	Merchant Transmission	1.6266
938895	AE1-117 C	3.1636	Adder	3.72
938896	AE1-117 E	8.4364	Adder	9.93
939151	AE1-145	1.3534	Adder	1.59
939303	AE1-161 BAT	3.4900	Merchant Transmission	3.4900
939821	AE1-218 C O1	-0.0485	Adder	-0.06
941021	AE2-093 C	1.2582	Adder	1.48
941022	AE2-093 E	2.0528	Adder	2.42
941181	AE2-112 C	0.5047	Adder	0.59
941182	AE2-112 E	0.8234	Adder	0.97
942441	AE2-257 C	2.1733	Adder	2.56
942442	AE2-257 E	5.7296	Adder	6.74
943361	AF1-007 C	0.1247	Adder	0.15
943362	AF1-007 E	0.3544	Adder	0.42
943441	AF1-015 C	0.4741	Adder	0.56
943442	AF1-015 E	0.6547	Adder	0.77
943651	AF1-036 C	0.6562	Adder	0.77
943652	AF1-036 E	0.9062	Adder	1.07
945661	AF1-231 C	0.5145	Adder	0.61
945662	AF1-231 E	0.7717	Adder	0.91
945791	AF1-244	0.5447	Adder	0.64
945931	AF1-258	0.2189	Adder	0.26
945941	AF1-259	0.0619	Adder	0.07
945991	AF1-264	-0.0780	Adder	-0.09
957263	AF2-020 BAT	1.3218	Merchant Transmission	1.3218
957293	AF2-023 BAT	3.4587	Merchant Transmission	3.4587
957303	AF2-024 BAT	2.5606	Merchant Transmission	2.5606
957611	AF2-055 C	2.3693	Adder	2.79
957612	AF2-055 E	1.0154	Adder	1.19
957661	AF2-060	0.6090	Adder	0.72
957671	AF2-061 O1	2.7067	Adder	3.18
959021	AF2-193 C	7.8108	Adder	9.19
959022	AF2-193 E	21.0695	Adder	24.79
959031	AF2-194 C	7.8108	Adder	9.19
959032	AF2-194 E	21.0695	Adder	24.79
959051	AF2-196 C	0.5927	Adder	0.7
959052	AF2-196 E	1.3830	Adder	1.63
959161	AF2-207 C O1	1.3673	Adder	1.61
959162	AF2-207 E O1	2.0509	Adder	2.41
959571	AF2-248 C	0.2308	Adder	0.27
959572	AF2-248 E	0.2580	Adder	0.3
959581	AF2-249 C	0.0407	Adder	0.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959582	AF2-249 E	0.1629	Adder	0.19
959591	AF2-250 C	0.0747	Adder	0.09
959592	AF2-250 E	0.0577	Adder	0.07
960221	AF2-313 C	0.9825	Adder	1.16
960222	AF2-313 E	0.5570	Adder	0.66
960341	AF2-325 C	0.2977	Adder	0.35
960342	AF2-325 E	0.4112	Adder	0.48
960671	AF2-358 C O1	4.2039	Adder	4.95
960672	AF2-358 E O1	2.8026	Adder	3.3
960871	AF2-378 C	0.0786	Adder	0.09
960872	AF2-378 E	0.1090	Adder	0.13
960881	AF2-379 C	0.1118	Adder	0.13
960882	AF2-379 E	0.1541	Adder	0.18
960941	AF2-385 C	3.2419	Adder	3.81
960942	AF2-385 E	1.8447	Adder	2.17
960961	AF2-387 C O1	5.0581	Adder	5.95
960962	AF2-387 E O1	2.5366	Adder	2.98
961181	AF2-409 O1	7.0295	Adder	8.27
962161	AG1-061 C O1	2.3712	Adder	5.26
962162	AG1-061 E O1	1.5808	Adder	3.51
962261	AG1-072	2.0126	Adder	4.47
962302	AG1-079 E	0.0560	Adder	0.12
962381	AG1-087 C O1	4.0078	Adder	8.9
962382	AG1-087 E O1	10.8111	Adder	24.0
962622	AG1-111 BAT	0.8621	Merchant Transmission	0.8621
963001	AG1-149	0.1083	Adder	0.24
963011	AG1-150	1.4346	Adder	3.18
964003	AG1-254 BAT	0.8124	Merchant Transmission	0.8124
964013	AG1-255 BAT	1.2429	Merchant Transmission	1.2429
964083	AG1-263 BAT	0.8039	Merchant Transmission	0.8039
964551	AG1-318 C	0.0105	Adder	0.02
964552	AG1-318 E	0.0245	Adder	0.05
964962	AG1-360 E	0.3154	Adder	0.7
965321	AG1-397 C	0.1499	Adder	0.33
965322	AG1-397 E	0.2068	Adder	0.46
965611	AG1-429 C O1	1.2651	Adder	2.81
965612	AG1-429 E O1	0.8431	Adder	1.87
965821	AG1-450	0.9296	Adder	2.06
965921	AG1-461 C O1	0.6903	Adder	1.53
965922	AG1-461 E O1	0.3717	Adder	0.83
965951	AG1-464 C O1	0.6875	Adder	1.53
965952	AG1-464 E O1	1.0312	Adder	2.29
966281	AG1-497 C O1	2.5786	Adder	5.72
966282	AG1-497 E O1	1.1051	Adder	2.45
966601	AG1-529 C	1.6663	Adder	3.7
966602	AG1-529 E	0.8894	Adder	1.97
CPL	CPL	0.0430	Confirmed LTF	0.0430
CBM-W2	CBM-W2	0.0090	Confirmed LTF	0.0090
NY	NY	0.9030	Confirmed LTF	0.9030
PRAIRIE	PRAIRIE	0.0129	Confirmed LTF	0.0129
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	15.6742	Confirmed LTF	15.6742

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
SIGE	SIGE	0.2436	Confirmed LTF	0.2436
CBM-S2	CBM-S2	0.4907	Confirmed LTF	0.4907
CBM-S1	CBM-S1	0.0023	Confirmed LTF	0.0023
G-007	G-007	2.7836	Confirmed LTF	2.7836
GIBSON	GIBSON	0.0060	Confirmed LTF	0.0060
BLUEG	BLUEG	0.0191	Confirmed LTF	0.0191
TRIMBLE	TRIMBLE	0.0061	Confirmed LTF	0.0061
LAGN	LAGN	0.0140	Confirmed LTF	0.0140

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
167820096	231000	CLAY_230	DP&L	214235	LINWOOD84	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	116.72	117.57	DC	17.3

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.7141	80/20	0.7141
231505	HR4	14.4603	80/20	14.4603
231900	EM5	35.1168	80/20	35.1168
231901	EM4	9.8687	80/20	9.8687
231902	DC CT7	1.6517	80/20	1.6517
231903	GEN4	2.0204	80/20	2.0204
231904	DC1 NUG	5.2346	80/20	5.2346
231905	DC2 NUG	5.2346	80/20	5.2346
231906	DC3 NUG	2.0661	80/20	2.0661
231907	DC10	0.5158	80/20	0.5158
231908	HR1	7.0896	80/20	7.0896
231909	HR2	7.2262	80/20	7.2262
231910	HR3	7.0896	80/20	7.0896
231915	DC CT6	1.5938	80/20	1.5938
231916	EM3	4.9716	80/20	4.9716
231917	EM10	0.8209	80/20	0.8209
231918	WEST 1	0.8684	80/20	0.8684
231919	CHRIST1	1.1852	80/20	1.1852
231920	CHRIST2	1.1801	80/20	1.1801
232416	X2-083	0.1065	80/20	0.1065
232417	X3-008 C	0.1902	80/20	0.1902
232422	X3-066 C	0.0605	80/20	0.0605
232424	Y1-079 C	0.1003	80/20	0.1003
232426	Y1-080 FULL	0.0317	80/20	0.0317
232902	EASTMUNI	1.7932	80/20	1.7932
232907	VN8	3.7912	80/20	3.7912
232922	MR3 (Deactivation : 01/06/2021)	11.7591	Adder	13.83
233915	AB1-141 C	0.3620	80/20	0.3620
233918	AB1-142 C	0.3620	80/20	0.3620
233931	AB2-179 C	6.8195	80/20	6.8195
919831	AA2-069 (Suspended)	51.9938	Adder	61.17
923921	AB2-032 C	2.3116	80/20	2.3116
923951	AB2-036 C	5.8447	80/20	5.8447
923961	AB2-037 C	12.8496	80/20	12.8496
924681	AB2-120 C	4.9254	Adder	5.79
924781	AB2-130 C O1	4.1578	Adder	4.89
924801	AB2-133 C O1	4.1552	80/20	4.1552
924821	AB2-135 C	4.9012	80/20	4.9012

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	3.9085	80/20	3.9085
924971	AB2-153 C	1.2918	80/20	1.2918
925151	AB2-172 C	3.0136	80/20	3.0136
925261	AB2-180 C	1.8297	Adder	2.15
925271	AB2-185 C	2.3412	80/20	2.3412
926131	AC1-091 C	0.8499	Adder	1.0
926141	AC1-092 C	0.8499	Adder	1.0
926151	AC1-093 C	0.8046	Adder	0.95
926161	AC1-094 C	0.6799	Adder	0.8
927031	AC1-190 C	5.5450	80/20	5.5450
927191	AC1-213 C	0.4163	Adder	0.49
930201	AB1-056 C	8.1552	Adder	9.59
931261	AB1-176 C	0.2538	80/20	0.2538
932161	AC2-023 C	3.4738	Adder	4.09
933631	AC2-185 C	1.7225	Adder	2.03
933641	AC2-186 C	2.3810	Adder	2.8
936451	AD2-059 C	0.0580	80/20	0.0580
936611	AD2-076 C O1	3.1531	80/20	3.1531
938651	AE1-087 C	2.5378	80/20	2.5378
938814	AE1-107 C	5.7313	80/20	5.7313
938896	AE1-117 E	16.2591	Adder	19.13
939151	AE1-145	2.5923	Adder	3.05
941021	AE2-093 C	2.7647	80/20	2.7647
941181	AE2-112 C	1.0939	80/20	1.0939
942441	AE2-257 C	4.1895	Adder	4.93
943361	AF1-007 C	0.2406	Adder	0.28
943441	AF1-015 C	1.0417	80/20	1.0417
943651	AF1-036 C	1.4225	80/20	1.4225
945661	AF1-231 C	0.9855	Adder	1.16
945791	AF1-244	1.0420	Adder	1.23
945931	AF1-258	0.4182	Adder	0.49
945941	AF1-259	0.1345	80/20	0.1345
957611	AF2-055 C	4.5381	Adder	5.34
957661	AF2-060	1.1665	Adder	1.37
957671	AF2-061 O1	5.1847	Adder	6.1
959021	AF2-193 C	15.0693	Adder	17.73
959031	AF2-194 C	15.0693	Adder	17.73
959051	AF2-196 C	1.1426	Adder	1.34
959161	AF2-207 C O1	2.6175	Adder	3.08
959571	AF2-248 C	0.4418	Adder	0.52
959581	AF2-249 C	0.0780	Adder	0.09
959591	AF2-250 C	0.1429	Adder	0.17
960221	AF2-313 C	2.1350	80/20	2.1350
960341	AF2-325 C	0.6634	80/20	0.6634
960671	AF2-358 C O1	7.9861	Adder	9.4
960871	AF2-378 C	0.1751	80/20	0.1751
960881	AF2-379 C	0.2138	Adder	0.25
960941	AF2-385 C	6.2062	Adder	7.3
960961	AF2-387 C O1	11.0822	80/20	11.0822
961181	AF2-409 O1	15.7060	80/20	15.7060
962161	AG1-061 C O1	4.5326	Adder	10.06
962261	AG1-072	8.3200	80/20	8.3200

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962381	AG1-087 C O1	7.7932	Adder	17.3
963001	AG1-149	0.2071	Adder	0.46
963011	AG1-150	2.7479	Adder	6.1
964551	AG1-318 C	0.0202	Adder	0.04
965321	AG1-397 C	0.2873	Adder	0.64
965611	AG1-429 C O1	2.4230	Adder	5.38
965821	AG1-450	1.7654	Adder	3.92
965921	AG1-461 C O1	1.3260	Adder	2.94
965951	AG1-464 C O1	1.3283	Adder	2.95
966281	AG1-497 C O1	5.1325	Adder	11.39
966601	AG1-529 C	3.2295	Adder	7.17
WEC	WEC	0.0290	Confirmed LTF	0.0290
LGEE	LGEE	0.0609	Confirmed LTF	0.0609
CPL	CPL	0.1310	Confirmed LTF	0.1310
CBM-W2	CBM-W2	0.9946	Confirmed LTF	0.9946
NY	NY	0.9716	Confirmed LTF	0.9716
TVA	TVA	0.1736	Confirmed LTF	0.1736
SIGE	SIGE	0.2577	Confirmed LTF	0.2577
CBM-S2	CBM-S2	1.7852	Confirmed LTF	1.7852
CBM-S1	CBM-S1	0.0452	Confirmed LTF	0.0452
MEC	MEC	0.1573	Confirmed LTF	0.1573
LAGN	LAGN	0.2118	Confirmed LTF	0.2118
CBM-W1	CBM-W1	1.2057	Confirmed LTF	1.2057

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
167820106	231001	EDGE MR 5	DP&L	214236	LINWOOD85	PECO	1	PECO_P1-2_220-84	single	804.0	115.31	116.13	DC	16.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.6835	80/20	0.6835
231505	HR4	14.3180	80/20	14.3180
231900	EM5	34.7711	80/20	34.7711
231901	EM4	9.2944	80/20	9.2944
231902	DC CT7	1.5827	80/20	1.5827
231903	GEN4	1.9359	80/20	1.9359
231904	DC1 NUG	5.0157	80/20	5.0157
231905	DC2 NUG	5.0157	80/20	5.0157
231906	DC3 NUG	1.9797	80/20	1.9797
231907	DC10	0.4942	80/20	0.4942
231908	HR1	6.6770	80/20	6.6770
231909	HR2	6.5348	80/20	6.5348
231910	HR3	6.6770	80/20	6.6770
231915	DC CT6	1.5271	80/20	1.5271
231916	EM3	4.4959	80/20	4.4959
231917	EM10	0.7424	80/20	0.7424
231918	WEST 1	0.8023	80/20	0.8023
231919	CHRIST1	1.1183	80/20	1.1183
231920	CHRIST2	1.1134	80/20	1.1134
232416	X2-083	0.1023	80/20	0.1023
232417	X3-008 C	0.1842	80/20	0.1842
232422	X3-066 C	0.0584	80/20	0.0584
232424	Y1-079 C	0.0970	80/20	0.0970
232426	Y1-080 FULL	0.0307	80/20	0.0307
232902	EASTMUNI	1.7360	80/20	1.7360
232907	VN8	3.6744	80/20	3.6744
232922	MR3 (Deactivation : 01/06/2021)	11.3932	Adder	13.4
233915	AB1-141 C	0.3494	80/20	0.3494
233918	AB1-142 C	0.3494	80/20	0.3494
233931	AB2-179 C	6.5520	80/20	6.5520
919831	AA2-069 (Suspended)	50.3760	Adder	59.27
923921	AB2-032 C	2.2312	80/20	2.2312
923951	AB2-036 C	5.6535	80/20	5.6535
923961	AB2-037 C	12.4630	80/20	12.4630
924681	AB2-120 C	4.7730	Adder	5.62
924781	AB2-130 C O1	4.0285	Adder	4.74
924801	AB2-133 C O1	4.0091	80/20	4.0091
924821	AB2-135 C	4.7317	80/20	4.7317
924831	AB2-136 C	3.7867	80/20	3.7867
924971	AB2-153 C	1.2469	80/20	1.2469
925151	AB2-172 C	2.9195	80/20	2.9195

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925261	AB2-180 C	1.7730	Adder	2.09
925271	AB2-185 C	2.2641	80/20	2.2641
926131	AC1-091 C	0.8231	Adder	0.97
926141	AC1-092 C	0.8231	Adder	0.97
926151	AC1-093 C	0.7792	Adder	0.92
926161	AC1-094 C	0.6585	Adder	0.77
927031	AC1-190 C	5.3718	80/20	5.3718
927191	AC1-213 C	0.4034	Adder	0.47
930201	AB1-056 C	7.9028	Adder	9.3
931261	AB1-176 C	0.2452	80/20	0.2452
932161	AC2-023 C	3.3664	Adder	3.96
933631	AC2-185 C	1.6682	Adder	1.96
933641	AC2-186 C	2.3056	Adder	2.71
936451	AD2-059 C	0.0557	80/20	0.0557
936611	AD2-076 C O1	3.0447	80/20	3.0447
938651	AE1-087 C	2.4586	80/20	2.4586
938814	AE1-107 C	5.4923	80/20	5.4923
938896	AE1-117 E	15.7553	Adder	18.54
939151	AE1-145	2.5121	Adder	2.96
941021	AE2-093 C	2.6775	80/20	2.6775
941181	AE2-112 C	1.0563	80/20	1.0563
942441	AE2-257 C	4.0597	Adder	4.78
943361	AF1-007 C	0.2332	Adder	0.27
943441	AF1-015 C	1.0089	80/20	1.0089
943651	AF1-036 C	1.3736	80/20	1.3736
945661	AF1-231 C	0.9550	Adder	1.12
945791	AF1-244	1.0097	Adder	1.19
945931	AF1-258	0.4053	Adder	0.48
945941	AF1-259	0.1299	80/20	0.1299
957611	AF2-055 C	4.3976	Adder	5.17
957661	AF2-060	1.1304	Adder	1.33
957671	AF2-061 O1	5.0242	Adder	5.91
959021	AF2-193 C	14.6030	Adder	17.18
959031	AF2-194 C	14.6030	Adder	17.18
959051	AF2-196 C	1.1072	Adder	1.3
959161	AF2-207 C O1	2.5363	Adder	2.98
959571	AF2-248 C	0.4281	Adder	0.5
959581	AF2-249 C	0.0755	Adder	0.09
959591	AF2-250 C	0.1385	Adder	0.16
960221	AF2-313 C	2.0621	80/20	2.0621
960341	AF2-325 C	0.6428	80/20	0.6428
960671	AF2-358 C O1	7.7382	Adder	9.1
960871	AF2-378 C	0.1697	80/20	0.1697
960881	AF2-379 C	0.2072	Adder	0.24
960941	AF2-385 C	6.0136	Adder	7.07
960961	AF2-387 C O1	10.7279	80/20	10.7279
961181	AF2-409 O1	15.2220	80/20	15.2220
962161	AG1-061 C O1	4.3917	Adder	9.75
962261	AG1-072	8.0540	80/20	8.0540
962381	AG1-087 C O1	7.5514	Adder	16.76
963001	AG1-149	0.2007	Adder	0.45
963011	AG1-150	2.6628	Adder	5.91

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964551	AG1-318 C	0.0196	Adder	0.04
965321	AG1-397 C	0.2784	Adder	0.62
965611	AG1-429 C O1	2.3481	Adder	5.21
965821	AG1-450	1.7105	Adder	3.8
965921	AG1-461 C O1	1.2849	Adder	2.85
965951	AG1-464 C O1	1.2863	Adder	2.86
966281	AG1-497 C O1	4.9728	Adder	11.04
966601	AG1-529 C	3.1288	Adder	6.95
WEC	WEC	0.0290	Confirmed LTF	0.0290
LGEE	LGEE	0.0609	Confirmed LTF	0.0609
CPL	CPL	0.1290	Confirmed LTF	0.1290
CBM-W2	CBM-W2	0.9946	Confirmed LTF	0.9946
NY	NY	0.9401	Confirmed LTF	0.9401
TVA	TVA	0.1722	Confirmed LTF	0.1722
SIGE	SIGE	0.2498	Confirmed LTF	0.2498
CBM-S2	CBM-S2	1.7539	Confirmed LTF	1.7539
CBM-S1	CBM-S1	0.0448	Confirmed LTF	0.0448
MEC	MEC	0.1573	Confirmed LTF	0.1573
LAGN	LAGN	0.2118	Confirmed LTF	0.2118
CBM-W1	CBM-W1	1.2057	Confirmed LTF	1.2057

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
167820127	231001	EDGE MR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	115.63	116.38	DC	15.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.5921	80/20	0.5921
231505	HR4	14.4393	80/20	14.4393
231900	EM5	35.0657	80/20	35.0657
231901	EM4	7.4153	80/20	7.4153
231902	DC CT7	1.3795	80/20	1.3795
231903	GEN4	1.6874	80/20	1.6874
231904	DC1 NUG	4.3719	80/20	4.3719
231905	DC2 NUG	4.3719	80/20	4.3719
231906	DC3 NUG	1.7256	80/20	1.7256
231907	DC10	0.4308	80/20	0.4308
231908	HR1	5.3271	80/20	5.3271
231909	HR2	4.0464	80/20	4.0464
231910	HR3	5.3271	80/20	5.3271
231915	DC CT6	1.3311	80/20	1.3311
231916	EM3	2.7839	80/20	2.7839
231917	EM10	0.4597	80/20	0.4597
231918	WEST 1	0.5727	80/20	0.5727
231919	CHRIST1	0.9006	80/20	0.9006
231920	CHRIST2	0.8967	80/20	0.8967
232416	X2-083	0.0905	80/20	0.0905
232417	X3-008 C	0.1691	80/20	0.1691
232422	X3-066 C	0.0529	80/20	0.0529
232424	Y1-079 C	0.0883	80/20	0.0883
232426	Y1-080 FULL	0.0282	80/20	0.0282
232902	EASTMUNI	1.5887	80/20	1.5887
232907	VN8	3.3787	80/20	3.3787
232922	MR3 (Deactivation : 01/06/2021)	10.4595	Adder	12.31
233915	AB1-141 C	0.3153	80/20	0.3153
233918	AB1-142 C	0.3153	80/20	0.3153
233931	AB2-179 C	5.7859	80/20	5.7859
919831	AA2-069 (Suspended)	46.2473	Adder	54.41
923921	AB2-032 C	2.0135	80/20	2.0135
923951	AB2-036 C	5.1519	80/20	5.1519
923961	AB2-037 C	11.4989	80/20	11.4989
924681	AB2-120 C	4.3870	Adder	5.16
924781	AB2-130 C O1	3.7001	Adder	4.35
924801	AB2-133 C O1	3.6108	80/20	3.6108
924821	AB2-135 C	4.2736	80/20	4.2736

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	3.4767	80/20	3.4767
924971	AB2-153 C	1.1252	80/20	1.1252
925151	AB2-172 C	2.6792	80/20	2.6792
925261	AB2-180 C	1.6292	Adder	1.92
925271	AB2-185 C	2.0609	80/20	2.0609
926131	AC1-091 C	0.7545	Adder	0.89
926141	AC1-092 C	0.7545	Adder	0.89
926151	AC1-093 C	0.7142	Adder	0.84
926161	AC1-094 C	0.6036	Adder	0.71
927031	AC1-190 C	4.9301	80/20	4.9301
927191	AC1-213 C	0.3707	Adder	0.44
930201	AB1-056 C	7.2613	Adder	8.54
931261	AB1-176 C	0.2220	80/20	0.2220
932161	AC2-023 C	3.0931	Adder	3.64
933631	AC2-185 C	1.5291	Adder	1.8
933641	AC2-186 C	2.1118	Adder	2.48
936451	AD2-059 C	0.0488	80/20	0.0488
936611	AD2-076 C O1	2.7535	80/20	2.7535
938651	AE1-087 C	2.2562	80/20	2.2562
938814	AE1-107 C	4.7895	80/20	4.7895
938896	AE1-117 E	14.4758	Adder	17.03
939151	AE1-145	2.3089	Adder	2.72
941021	AE2-093 C	2.4540	80/20	2.4540
941181	AE2-112 C	0.9553	80/20	0.9553
942441	AE2-257 C	3.7301	Adder	4.39
943361	AF1-007 C	0.2142	Adder	0.25
943441	AF1-015 C	0.9247	80/20	0.9247
943651	AF1-036 C	1.2422	80/20	1.2422
945661	AF1-231 C	0.8777	Adder	1.03
945791	AF1-244	0.9281	Adder	1.09
945931	AF1-258	0.3724	Adder	0.44
945941	AF1-259	0.1176	80/20	0.1176
957611	AF2-055 C	4.0418	Adder	4.76
957661	AF2-060	1.0390	Adder	1.22
957671	AF2-061 O1	4.6179	Adder	5.43
959021	AF2-193 C	13.4175	Adder	15.79
959031	AF2-194 C	13.4175	Adder	15.79
959051	AF2-196 C	1.0173	Adder	1.2
959161	AF2-207 C O1	2.3307	Adder	2.74
959571	AF2-248 C	0.3934	Adder	0.46
959581	AF2-249 C	0.0694	Adder	0.08
959591	AF2-250 C	0.1273	Adder	0.15
960221	AF2-313 C	1.8668	80/20	1.8668
960341	AF2-325 C	0.5900	80/20	0.5900
960671	AF2-358 C O1	7.1079	Adder	8.36
960871	AF2-378 C	0.1558	80/20	0.1558
960881	AF2-379 C	0.1904	Adder	0.22
960941	AF2-385 C	5.5261	Adder	6.5
960961	AF2-387 C O1	9.8115	80/20	9.8115
961181	AF2-409 O1	13.9970	80/20	13.9970
962161	AG1-061 C O1	4.0342	Adder	8.95
962261	AG1-072	7.3660	80/20	7.3660

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962381	AG1-087 C O1	6.9376	Adder	15.4
963001	AG1-149	0.1845	Adder	0.41
963011	AG1-150	2.4475	Adder	5.43
964551	AG1-318 C	0.0180	Adder	0.04
965321	AG1-397 C	0.2558	Adder	0.57
965611	AG1-429 C O1	2.1581	Adder	4.79
965821	AG1-450	1.5711	Adder	3.49
965921	AG1-461 C O1	1.1801	Adder	2.62
965951	AG1-464 C O1	1.1781	Adder	2.62
966281	AG1-497 C O1	4.5653	Adder	10.13
966601	AG1-529 C	2.8722	Adder	6.38
WEC	WEC	0.0299	Confirmed LTF	0.0299
LGEE	LGEE	0.0622	Confirmed LTF	0.0622
CPL	CPL	0.1256	Confirmed LTF	0.1256
CBM-W2	CBM-W2	1.0035	Confirmed LTF	1.0035
NY	NY	0.8599	Confirmed LTF	0.8599
TVA	TVA	0.1722	Confirmed LTF	0.1722
SIGE	SIGE	0.2300	Confirmed LTF	0.2300
CBM-S2	CBM-S2	1.7226	Confirmed LTF	1.7226
CBM-S1	CBM-S1	0.0452	Confirmed LTF	0.0452
MEC	MEC	0.1605	Confirmed LTF	0.1605
LAGN	LAGN	0.2118	Confirmed LTF	0.2118
CBM-W1	CBM-W1	1.2478	Confirmed LTF	1.2478

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
165231690	231003	KEEN_230	DP&L	231002	HARMONY	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	102.58	105.35	DC	49.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2490	50/50	0.2490
232405	W1-003 E	1.4646	50/50	1.4646
232406	W1-004 C	0.2490	50/50	0.2490
232407	W1-004 E	1.4646	50/50	1.4646
232408	W1-005 C	0.2490	50/50	0.2490
232409	W1-005 E	1.4646	50/50	1.4646
232410	W1-006 C	0.2490	50/50	0.2490
232411	W1-006 E	1.4646	50/50	1.4646
232412	X1-032 E	0.4744	50/50	0.4744
232417	X3-008 C	0.1423	50/50	0.1423
232418	X3-008 E	1.4713	50/50	1.4713
232423	X3-066 E	0.2275	Adder	0.27
232425	Y1-079 E	0.5518	Adder	0.65
232426	Y1-080 FULL	0.0241	50/50	0.0241
232427	Y1-080 E	0.2508	50/50	0.2508
232428	Y3-058 C	0.1065	50/50	0.1065
232429	Y3-058 E	0.7222	50/50	0.7222
232433	Z2-076 E	0.1976	Adder	0.23
232435	Z2-077 E	0.1976	Adder	0.23
232851	DUP-SFR1	0.9665	Adder	1.14
232907	VN8	2.9541	50/50	2.9541
232912	OH NUG1	0.6749	50/50	0.6749
232914	OH NUG3	0.6749	50/50	0.6749
232915	OH NUG4	0.6749	50/50	0.6749
232916	OH NUG5	0.6749	50/50	0.6749
232919	VN10	0.2174	50/50	0.2174
232922	MR3 (Deactivation : 01/06/2021)	9.0246	Adder	10.62
232926	CRISFLD1	0.1873	50/50	0.1873
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1763	Adder	0.21
233916	AB1-141 E	0.4540	Adder	0.53
233919	AB1-142 E	0.4540	Adder	0.53
233923	AA1-102 C	1.0675	50/50	1.0675
917082	CHERRYDALE E	1.2446	Adder	1.46
918835	AA1-102 E	11.0400	50/50	11.0400
919831	AA2-069 (Suspended)	39.9029	Adder	46.94
923921	AB2-032 C	0.9801	Adder	1.15
923922	AB2-032 E	0.4612	Adder	0.54
923951	AB2-036 C	3.1908	Adder	3.75
923952	AB2-036 E	5.2204	Adder	6.14
923961	AB2-037 C	10.5823	50/50	10.5823
923962	AB2-037 E	17.2876	50/50	17.2876

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C	3.8124	Adder	4.49
924682	AB2-120 E	6.2202	Adder	7.32
924781	AB2-130 C O1	3.1812	Adder	3.74
924782	AB2-130 E O1	5.1904	Adder	6.11
924801	AB2-133 C O1	1.6665	Adder	1.96
924802	AB2-133 E O1	2.1136	Adder	2.49
924821	AB2-135 C	2.1427	Adder	2.52
924822	AB2-135 E	2.4437	Adder	2.87
924831	AB2-136 C	2.9532	50/50	2.9532
924832	AB2-136 E	3.1318	50/50	3.1318
924971	AB2-153 C	0.5477	Adder	0.64
924972	AB2-153 E	0.8936	Adder	1.05
925151	AB2-172 C	2.2543	50/50	2.2543
925152	AB2-172 E	3.6781	50/50	3.6781
925261	AB2-180 C	1.6576	50/50	1.6576
925262	AB2-180 E	0.7104	50/50	0.7104
925271	AB2-185 C	1.2459	Adder	1.47
925272	AB2-185 E	0.5340	Adder	0.63
926131	AC1-091 C	0.6335	Adder	0.75
926132	AC1-091 E	1.0389	Adder	1.22
926141	AC1-092 C	0.6335	Adder	0.75
926142	AC1-092 E	1.0389	Adder	1.22
926151	AC1-093 C	0.5997	Adder	0.71
926152	AC1-093 E	0.9882	Adder	1.16
926161	AC1-094 C	0.5068	Adder	0.6
926162	AC1-094 E	0.8362	Adder	0.98
927031	AC1-190 C	4.1556	50/50	4.1556
927032	AC1-190 E	1.7810	50/50	1.7810
927191	AC1-213 C	0.3210	Adder	0.38
927192	AC1-213 E	0.2107	Adder	0.25
930201	AB1-056 C	6.2956	Adder	7.41
930202	AB1-056 E	17.9289	Adder	21.09
931261	AB1-176 C	0.1176	Adder	0.14
931262	AB1-176 E	0.1940	Adder	0.23
932161	AC2-023 C	3.1445	50/50	3.1445
932162	AC2-023 E	2.2901	50/50	2.2901
933631	AC2-185 C	1.2839	Adder	1.51
933632	AC2-185 E	2.0947	Adder	2.46
933641	AC2-186 C	1.7295	Adder	2.03
933642	AC2-186 E	2.8218	Adder	3.32
936453	AD2-059 BAT	0.4396	50/50	0.4396
936611	AD2-076 C O1	1.4206	Adder	1.67
936612	AD2-076 E O1	2.3179	Adder	2.73
938651	AE1-087 C	1.8984	50/50	1.8984
938652	AE1-087 E	0.4746	50/50	0.4746
938895	AE1-117 C	4.7018	Adder	5.53
938896	AE1-117 E	12.5381	Adder	14.75
939151	AE1-145	2.0065	Adder	2.36
941021	AE2-093 C	2.0087	50/50	2.0087
941022	AE2-093 E	3.2774	50/50	3.2774
941181	AE2-112 C	0.4929	Adder	0.58
941182	AE2-112 E	0.8042	Adder	0.95

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942441	AE2-257 C	3.2308	Adder	3.8
942442	AE2-257 E	8.5176	Adder	10.02
943361	AF1-007 C	0.1857	Adder	0.22
943362	AF1-007 E	0.5279	Adder	0.62
943441	AF1-015 C	0.7569	50/50	0.7569
943442	AF1-015 E	1.0452	50/50	1.0452
943651	AF1-036 C	0.6409	Adder	0.75
943652	AF1-036 E	0.8850	Adder	1.04
945661	AF1-231 C	0.7629	Adder	0.9
945662	AF1-231 E	1.1443	Adder	1.35
945791	AF1-244	0.9497	50/50	0.9497
945931	AF1-258	0.3789	50/50	0.3789
945941	AF1-259	0.0623	Adder	0.07
957443	AF2-038 BAT	2.7182	50/50	2.7182
957611	AF2-055 C	3.5129	Adder	4.13
957612	AF2-055 E	1.5055	Adder	1.77
957661	AF2-060	0.9029	Adder	1.06
957671	AF2-061 O1	4.0130	Adder	4.72
959021	AF2-193 C	11.6333	Adder	13.69
959022	AF2-193 E	31.3805	Adder	36.92
959031	AF2-194 C	11.6333	Adder	13.69
959032	AF2-194 E	31.3805	Adder	36.92
959051	AF2-196 C	0.8811	Adder	1.04
959052	AF2-196 E	2.0560	Adder	2.42
959161	AF2-207 C O1	2.0162	Adder	2.37
959162	AF2-207 E O1	3.0243	Adder	3.56
959571	AF2-248 C	0.3404	Adder	0.4
959572	AF2-248 E	0.3805	Adder	0.45
959581	AF2-249 C	0.0601	Adder	0.07
959582	AF2-249 E	0.2403	Adder	0.28
959591	AF2-250 C	0.1101	Adder	0.13
959592	AF2-250 E	0.0851	Adder	0.1
960221	AF2-313 C	0.9895	Adder	1.16
960222	AF2-313 E	0.5610	Adder	0.66
960341	AF2-325 C	0.4995	50/50	0.4995
960342	AF2-325 E	0.6898	50/50	0.6898
960671	AF2-358 C O1	7.1712	50/50	7.1712
960672	AF2-358 E O1	4.7808	50/50	4.7808
960871	AF2-378 C	0.1321	50/50	0.1321
960872	AF2-378 E	0.1833	50/50	0.1833
960881	AF2-379 C	0.1947	50/50	0.1947
960882	AF2-379 E	0.2682	50/50	0.2682
960941	AF2-385 C	4.7805	Adder	5.62
960942	AF2-385 E	2.7203	Adder	3.2
960961	AF2-387 C O1	6.5441	Adder	7.7
960962	AF2-387 E O1	3.2819	Adder	3.86
961181	AF2-409 O1	12.2380	50/50	12.2380
962161	AG1-061 C O1	3.4705	Adder	7.7
962162	AG1-061 E O1	2.3137	Adder	5.14
962261	AG1-072	2.6039	Adder	5.78
962302	AG1-079 E	0.0616	Adder	0.14
962381	AG1-087 C O1	6.0187	Adder	13.36

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962382	AG1-087 E O1	16.2354	Adder	36.04
963001	AG1-149	0.3561	50/50	0.3561
963011	AG1-150	2.1269	Adder	4.72
964551	AG1-318 C	0.0156	Adder	0.03
964552	AG1-318 E	0.0364	Adder	0.08
964962	AG1-360 E	1.0377	50/50	1.0377
965321	AG1-397 C	0.2215	Adder	0.49
965322	AG1-397 E	0.3056	Adder	0.68
965611	AG1-429 C O1	1.8757	Adder	4.16
965612	AG1-429 E O1	1.2501	Adder	2.77
965821	AG1-450	2.9863	50/50	2.9863
965921	AG1-461 C O1	1.0161	Adder	2.26
965922	AG1-461 E O1	0.5471	Adder	1.21
965951	AG1-464 C O1	0.9649	Adder	2.14
965952	AG1-464 E O1	1.4473	Adder	3.21
966281	AG1-497 C O1	3.9390	Adder	8.74
966282	AG1-497 E O1	1.6881	Adder	3.75
966601	AG1-529 C	2.4530	Adder	5.45
966602	AG1-529 E	1.3093	Adder	2.91
WEC	WEC	0.1647	Confirmed LTF	0.1647
LGEE	LGEE	0.3311	Confirmed LTF	0.3311
CPL	CPL	0.4068	Confirmed LTF	0.4068
CBM-W2	CBM-W2	4.8115	Confirmed LTF	4.8115
NY	NY	0.4966	Confirmed LTF	0.4966
TVA	TVA	0.7644	Confirmed LTF	0.7644
O-066	O-066	9.1528	Confirmed LTF	9.1528
SIGE	SIGE	0.1982	Confirmed LTF	0.1982
CBM-S2	CBM-S2	6.0552	Confirmed LTF	6.0552
CBM-S1	CBM-S1	0.2063	Confirmed LTF	0.2063
G-007	G-007	1.4269	Confirmed LTF	1.4269
MEC	MEC	0.8390	Confirmed LTF	0.8390
LAGN	LAGN	0.9538	Confirmed LTF	0.9538
CBM-W1	CBM-W1	7.2624	Confirmed LTF	7.2624

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
164868397	232012	HOPE CREEK	PJM	200029	HOPE CRK	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	115.62	134.99	DC	218.03

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	4.3871	Adder	5.16
232407	W1-004 E	4.3871	Adder	5.16
232409	W1-005 E	4.3871	Adder	5.16
232411	W1-006 E	4.3871	Adder	5.16
232412	X1-032 E	1.3954	Adder	1.64
232418	X3-008 E	3.6945	Adder	4.35
232423	X3-066 E	0.6264	Adder	0.74
232425	Y1-079 E	1.3675	Adder	1.61
232427	Y1-080 E	0.6616	Adder	0.78
232429	Y3-058 E	2.0912	Adder	2.46
232433	Z2-076 E	0.7602	Adder	0.89
232435	Z2-077 E	0.7602	Adder	0.89
232616	GEN FOOD	1.4453	50/50	1.4453
232813	VAUGHN	0.2195	50/50	0.2195
232851	DUP-SFR1	3.8081	Adder	4.48
232899	W1-062	4.4526	50/50	4.4526
232900	DEMECSMY	4.3617	50/50	4.3617
232901	NORTHST	4.3739	50/50	4.3739
232922	MR3 (Deactivation : 01/06/2021)	61.4734	50/50	61.4734
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.6898	Adder	0.81
233916	AB1-141 E	1.2494	Adder	1.47
233919	AB1-142 E	1.2494	Adder	1.47
233920	W3-032A-CTG1	18.3513	50/50	18.3513
233921	W3-032A-STG1	11.0488	50/50	11.0488
917082	CHERRYDALE E	4.3911	Adder	5.17
918835	AA1-102 E	32.3322	Adder	38.04
919831	AA2-069 (Suspended)	271.8087	50/50	271.8087
923921	AB2-032 C	2.6972	Adder	3.17
923922	AB2-032 E	1.2693	Adder	1.49
923951	AB2-036 C	7.6067	Adder	8.95
923952	AB2-036 E	12.4453	Adder	14.64
923961	AB2-037 C	16.3092	Adder	19.19
923962	AB2-037 E	26.6433	Adder	31.35
924681	AB2-120 C	13.4743	Adder	15.85
924682	AB2-120 E	21.9843	Adder	25.86
924781	AB2-130 C O1	11.7774	Adder	13.86
924782	AB2-130 E O1	19.2157	Adder	22.61
924801	AB2-133 C O1	5.1399	Adder	6.05
924802	AB2-133 E O1	6.5189	Adder	7.67
924821	AB2-135 C	7.6016	Adder	8.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924822	AB2-135 E	8.6694	Adder	10.2
924831	AB2-136 C	7.6196	Adder	8.96
924832	AB2-136 E	8.0804	Adder	9.51
924971	AB2-153 C	1.5072	Adder	1.77
924972	AB2-153 E	2.4592	Adder	2.89
925151	AB2-172 C	5.6609	Adder	6.66
925152	AB2-172 E	9.2362	Adder	10.87
925261	AB2-180 C	4.7995	Adder	5.65
925262	AB2-180 E	2.0569	Adder	2.42
925271	AB2-185 C	3.0879	Adder	3.63
925272	AB2-185 E	1.3234	Adder	1.56
926131	AC1-091 C	4.7147	50/50	4.7147
926132	AC1-091 E	7.7320	50/50	7.7320
926141	AC1-092 C	4.7147	50/50	4.7147
926142	AC1-092 E	7.7320	50/50	7.7320
926151	AC1-093 C	4.4632	50/50	4.4632
926152	AC1-093 E	7.3549	50/50	7.3549
926161	AC1-094 C	3.7717	50/50	3.7717
926162	AC1-094 E	6.2233	50/50	6.2233
927031	AC1-190 C	10.4860	Adder	12.34
927032	AC1-190 E	4.4940	Adder	5.29
927191	AC1-213 C	1.1181	Adder	1.32
927192	AC1-213 E	0.7337	Adder	0.86
930201	AB1-056 C	24.9494	Adder	29.35
930202	AB1-056 E	71.0515	Adder	83.59
931261	AB1-176 C	0.3239	Adder	0.38
931262	AB1-176 E	0.5341	Adder	0.63
932161	AC2-023 C	8.9690	Adder	10.55
932162	AC2-023 E	6.5321	Adder	7.68
933631	AC2-185 C	9.5550	50/50	9.5550
933632	AC2-185 E	15.5898	50/50	15.5898
933641	AC2-186 C	9.0069	50/50	9.0069
933642	AC2-186 E	14.6955	50/50	14.6955
936611	AD2-076 C O1	3.7879	Adder	4.46
936612	AD2-076 E O1	6.1802	Adder	7.27
938651	AE1-087 C	4.7671	Adder	5.61
938652	AE1-087 E	1.1918	Adder	1.4
938895	AE1-117 C	18.3902	Adder	21.64
938896	AE1-117 E	49.0405	Adder	57.69
939151	AE1-145	7.0912	Adder	8.34
941021	AE2-093 C	3.9383	Adder	4.63
941022	AE2-093 E	6.4256	Adder	7.56
941181	AE2-112 C	1.3142	Adder	1.55
941182	AE2-112 E	2.1442	Adder	2.52
942441	AE2-257 C	12.6674	Adder	14.9
942442	AE2-257 E	33.3958	Adder	39.29
943361	AF1-007 C	0.7361	Adder	0.87
943362	AF1-007 E	2.0920	Adder	2.46
943441	AF1-015 C	1.4839	Adder	1.75
943442	AF1-015 E	2.0492	Adder	2.41
943651	AF1-036 C	1.7088	Adder	2.01
943652	AF1-036 E	2.3598	Adder	2.78

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945661	AF1-231 C	2.6907	Adder	3.17
945662	AF1-231 E	4.0360	Adder	4.75
945791	AF1-244	2.7813	Adder	3.27
945931	AF1-258	1.0970	Adder	1.29
945941	AF1-259	0.1716	Adder	0.2
957611	AF2-055 C	12.3941	Adder	14.58
957612	AF2-055 E	5.3118	Adder	6.25
957661	AF2-060	3.1910	Adder	3.75
957671	AF2-061 O1	14.1824	Adder	16.69
959021	AF2-193 C	46.1021	Adder	54.24
959022	AF2-193 E	124.3596	Adder	146.31
959031	AF2-194 C	46.1021	Adder	54.24
959032	AF2-194 E	124.3596	Adder	146.31
959051	AF2-196 C	3.4547	Adder	4.06
959052	AF2-196 E	8.0611	Adder	9.48
959161	AF2-207 C O1	7.1013	Adder	8.35
959162	AF2-207 E O1	10.6520	Adder	12.53
959571	AF2-248 C	1.1941	Adder	1.4
959572	AF2-248 E	1.3345	Adder	1.57
959581	AF2-249 C	0.2107	Adder	0.25
959582	AF2-249 E	0.8429	Adder	0.99
959591	AF2-250 C	0.3863	Adder	0.45
959592	AF2-250 E	0.2985	Adder	0.35
960221	AF2-313 C	2.7242	Adder	3.2
960222	AF2-313 E	1.5444	Adder	1.82
960341	AF2-325 C	1.2765	Adder	1.5
960342	AF2-325 E	1.7627	Adder	2.07
960671	AF2-358 C O1	18.9909	Adder	22.34
960672	AF2-358 E O1	12.6606	Adder	14.89
960871	AF2-378 C	0.3393	Adder	0.4
960872	AF2-378 E	0.4708	Adder	0.55
960881	AF2-379 C	0.5677	Adder	0.67
960882	AF2-379 E	0.7823	Adder	0.92
960941	AF2-385 C	16.8375	Adder	19.81
960942	AF2-385 E	9.5812	Adder	11.27
960961	AF2-387 C O1	15.0900	Adder	17.75
960962	AF2-387 E O1	7.5676	Adder	8.9
961181	AF2-409 O1	31.1721	Adder	36.67
962161	AG1-061 C O1	12.0296	Adder	26.7
962162	AG1-061 E O1	8.0198	Adder	17.8
962261	AG1-072	6.0043	Adder	13.33
962302	AG1-079 E	0.2561	Adder	0.57
962381	AG1-087 C O1	58.9669	50/50	58.9669
962382	AG1-087 E O1	159.0619	50/50	159.0619
963001	AG1-149	0.5528	Adder	1.23
963011	AG1-150	7.5167	Adder	16.69
964551	AG1-318 C	0.0608	Adder	0.13
964552	AG1-318 E	0.1419	Adder	0.31
964962	AG1-360 E	1.6178	Adder	3.59
965321	AG1-397 C	0.7937	Adder	1.76
965322	AG1-397 E	1.0949	Adder	2.43
965611	AG1-429 C O1	6.6177	Adder	14.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965612	AG1-429 E O1	4.4105	Adder	9.79
965821	AG1-450	4.1746	Adder	9.27
965921	AG1-461 C O1	3.8157	Adder	8.47
965922	AG1-461 E O1	2.0546	Adder	4.56
965951	AG1-464 C O1	9.4810	50/50	9.4810
965952	AG1-464 E O1	14.2215	50/50	14.2215
966281	AG1-497 C O1	50.6251	50/50	50.6251
966282	AG1-497 E O1	21.6965	50/50	21.6965
966601	AG1-529 C	23.5815	50/50	23.5815
966602	AG1-529 E	12.5865	50/50	12.5865
CALDERWOOD	CALDERWOOD	0.1402	Confirmed LTF	0.1402
NY	NY	0.5331	Confirmed LTF	0.5331
PRAIRIE	PRAIRIE	0.7491	Confirmed LTF	0.7491
O-066	O-066	8.5336	Confirmed LTF	8.5336
SIGE	SIGE	0.1025	Confirmed LTF	0.1025
CHEOAH	CHEOAH	0.1406	Confirmed LTF	0.1406
COTTONWOOD	COTTONWOOD	0.5985	Confirmed LTF	0.5985
G-007	G-007	1.5288	Confirmed LTF	1.5288
HAMLET	HAMLET	0.1542	Confirmed LTF	0.1542
GIBSON	GIBSON	0.1600	Confirmed LTF	0.1600
BLUEG	BLUEG	0.5086	Confirmed LTF	0.5086
TRIMBLE	TRIMBLE	0.1631	Confirmed LTF	0.1631
CATAWBA	CATAWBA	0.0952	Confirmed LTF	0.0952

11.6.13 Index 13

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 %	ACID C	MW IMPACT
166669854	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FS_A	tower	348.0	181.93	190.68	DC	70.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	-9.2465	Adder	-10.88
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
926131	AC1-091 C	0.6418	Adder	0.76
926132	AC1-091 E	1.0526	Adder	1.24
926141	AC1-092 C	0.6418	Adder	0.76
926142	AC1-092 E	1.0526	Adder	1.24
926151	AC1-093 C	0.6076	Adder	0.71
926152	AC1-093 E	1.0013	Adder	1.18
926161	AC1-094 C	0.5135	Adder	0.6
926162	AC1-094 E	0.8472	Adder	1.0
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933631	AC2-185 C	1.3008	Adder	1.53
933632	AC2-185 E	2.1223	Adder	2.5
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O1	13.7777	50/50	13.7777
962162	AG1-061 E O1	9.1851	50/50	9.1851
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O1	8.5411	Adder	18.96
962382	AG1-087 E O1	23.0393	Adder	51.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O1	3.1865	Adder	7.07
965612	AG1-429 E O1	2.1237	Adder	4.71
965821	AG1-450	5.7923	50/50	5.7923
965921	AG1-461 C O1	1.7145	Adder	3.81
965922	AG1-461 E O1	0.9232	Adder	2.05
965951	AG1-464 C O1	1.7512	Adder	3.89
965952	AG1-464 E O1	2.6268	Adder	5.83
966281	AG1-497 C O1	3.9481	Adder	8.76
966282	AG1-497 E O1	1.6920	Adder	3.76
966601	AG1-529 C	3.8100	Adder	8.46
966602	AG1-529 E	2.0336	Adder	4.51
CALDERWOOD	CALDERWOOD	0.0924	Confirmed LTF	0.0924
NY	NY	0.0586	Confirmed LTF	0.0586
PRAIRIE	PRAIRIE	0.4779	Confirmed LTF	0.4779
O-066	O-066	0.4576	Confirmed LTF	0.4576
CHEOAH	CHEOAH	0.0931	Confirmed LTF	0.0931
COTTONWOOD	COTTONWOOD	0.3906	Confirmed LTF	0.3906
G-007	G-007	0.0378	Confirmed LTF	0.0378
HAMLET	HAMLET	0.1091	Confirmed LTF	0.1091
GIBSON	GIBSON	0.1010	Confirmed LTF	0.1010
BLUEG	BLUEG	0.3212	Confirmed LTF	0.3212
TRIMBLE	TRIMBLE	0.1030	Confirmed LTF	0.1030
CATAWBA	CATAWBA	0.0658	Confirmed LTF	0.0658

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
166669864	232106	MIDLTNTP	DP&L	232104	MT PLSNT	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	162.2	170.96	DC	70.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	27.1217	50/50	27.1217
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925254	AB2-179 E	8.8503	50/50	8.8503
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O1	13.7777	50/50	13.7777
962162	AG1-061 E O1	9.1851	50/50	9.1851
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O1	8.5411	Adder	18.96
962382	AG1-087 E O1	23.0393	Adder	51.14
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O1	3.1865	Adder	7.07
965612	AG1-429 E O1	2.1237	Adder	4.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965821	AG1-450	5.7923	50/50	5.7923
965921	AG1-461 C O1	1.7145	Adder	3.81
965922	AG1-461 E O1	0.9232	Adder	2.05
965951	AG1-464 C O1	1.7512	Adder	3.89
965952	AG1-464 E O1	2.6268	Adder	5.83
966281	AG1-497 C O1	3.9481	Adder	8.76
966282	AG1-497 E O1	1.6920	Adder	3.76
966601	AG1-529 C	3.8100	Adder	8.46
966602	AG1-529 E	2.0336	Adder	4.51
CALDERWOOD	CALDERWOOD	0.0924	Confirmed LTF	0.0924
NY	NY	0.0586	Confirmed LTF	0.0586
PRAIRIE	PRAIRIE	0.4779	Confirmed LTF	0.4779
O-066	O-066	0.4576	Confirmed LTF	0.4576
CHEOAH	CHEOAH	0.0931	Confirmed LTF	0.0931
COTTONWOOD	COTTONWOOD	0.3906	Confirmed LTF	0.3906
G-007	G-007	0.0378	Confirmed LTF	0.0378
HAMLET	HAMLET	0.1091	Confirmed LTF	0.1091
GIBSON	GIBSON	0.1010	Confirmed LTF	0.1010
BLUEG	BLUEG	0.3212	Confirmed LTF	0.3212
TRIMBLE	TRIMBLE	0.1030	Confirmed LTF	0.1030
CATAWBA	CATAWBA	0.0658	Confirmed LTF	0.0658

11.6.15 Index 15

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
166669849	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A	tower	348.0	187.66	196.42	DC	70.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	27.1217	50/50	27.1217
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925254	AB2-179 E	8.8503	50/50	8.8503
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O1	13.7777	50/50	13.7777
962162	AG1-061 E O1	9.1851	50/50	9.1851
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O1	8.5411	Adder	18.96
962382	AG1-087 E O1	23.0393	Adder	51.14
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O1	3.1865	Adder	7.07
965612	AG1-429 E O1	2.1237	Adder	4.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965821	AG1-450	5.7923	50/50	5.7923
965921	AG1-461 C O1	1.7145	Adder	3.81
965922	AG1-461 E O1	0.9232	Adder	2.05
965951	AG1-464 C O1	1.7512	Adder	3.89
965952	AG1-464 E O1	2.6268	Adder	5.83
966281	AG1-497 C O1	3.9481	Adder	8.76
966282	AG1-497 E O1	1.6920	Adder	3.76
966601	AG1-529 C	3.8100	Adder	8.46
966602	AG1-529 E	2.0336	Adder	4.51
CALDERWOOD	CALDERWOOD	0.0924	Confirmed LTF	0.0924
NY	NY	0.0586	Confirmed LTF	0.0586
PRAIRIE	PRAIRIE	0.4779	Confirmed LTF	0.4779
O-066	O-066	0.4576	Confirmed LTF	0.4576
CHEOAH	CHEOAH	0.0931	Confirmed LTF	0.0931
COTTONWOOD	COTTONWOOD	0.3906	Confirmed LTF	0.3906
G-007	G-007	0.0378	Confirmed LTF	0.0378
HAMLET	HAMLET	0.1091	Confirmed LTF	0.1091
GIBSON	GIBSON	0.1010	Confirmed LTF	0.1010
BLUEG	BLUEG	0.3212	Confirmed LTF	0.3212
TRIMBLE	TRIMBLE	0.1030	Confirmed LTF	0.1030
CATAWBA	CATAWBA	0.0658	Confirmed LTF	0.0658

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
AA1-102	Kings Creek-Loretto 138kV	Partially in Service - Under Construction
AA2-069	Cartanza 230kV	Suspended
AB1-056	Indian River 230kV I	Engineering and Procurement
AB1-116	Egg Harbor Road 12kV	In Service
AB1-137	Frankford 25kV	Withdrawn
AB1-141	Church-Wye Mills 138 kV I	Engineering and Procurement
AB1-142	Church-Wye Mills 138 kV II	Engineering and Procurement
AB1-176	Price 25kV II	Active
AB2-032	Church-Wye Mills 138 kV	Engineering and Procurement
AB2-036	Church-Steele 138kV	Active
AB2-037	Keeney-Steele 230kV	Active
AB2-049	Gloucester Township 12kV	Engineering and Procurement
AB2-102	Cumberland 230kV	Active
AB2-120	Piney Grove-New Church 138kV	Active
AB2-130	Laurel 69kV	Active
AB2-133	Chestertown-Church 69kV	Engineering and Procurement
AB2-135	Church-Kent 69kV	Active
AB2-136	West Cambridge-Vienna 69kV	Active
AB2-153	Church-Wye Mills 138 kV	Engineering and Procurement
AB2-172	Todd 69kV	Engineering and Procurement
AB2-179	Townsend 138kV	Engineering and Procurement
AB2-180	Rockawalkin 69kV	Engineering and Procurement
AB2-185	Wye Mills 25kV	Active
AC1-091	Cedar Creek 138kV I	Active
AC1-092	Cedar Creek 138kV II	Active
AC1-093	Cedar Creek 138kV III	Active
AC1-094	Cedar Creek 138kV IV	Active
AC1-190	East New Market 69kV	Active
AC1-213	North Salisbury 25kV	Active
AC2-023	Hebron 69kV	Active
AC2-185	Cedar Creek 138kV II	Active
AC2-186	Harrington 25kV	Engineering and Procurement
AD1-097	Linwood 230 kV II	Engineering and Procurement
AD2-059	Chapel Street 138 kV	Active
AD2-065	Berlin 12kV	Engineering and Procurement
AD2-076	Centreville 69 kV	Active
AD2-135	Williamstown 12kV	Active
AE1-061	Minotola 12 kV	Active
AE1-062	Silver Lake 69 kV	Active

Queue Number	Project Name	Status
AE1-087	Todd 69 kV	Engineering and Procurement
AE1-104	BL England 138 kV	Active
AE1-107	Mt. Pleasant-Lums Pond 138 kV	Active
AE1-115	Churchtown 69 kV	Active
AE1-117	Bethany 138 kV	Active
AE1-145	Wallops Island 69 kV	Active
AE1-161	Landis 138 kV	Active
AE1-179	South Millville-Newport 69 kV	Active
AE1-218	Glassboro 12 kV	Engineering and Procurement
AE1-229	Deepwater-Upper Pittsgrove 138 kV	Active
AE1-240	Carlls Corner-Sherman Avenue 69 kV	Active
AE2-093	Easton-Steele 138 kV	Active
AE2-112	Carville 138 kV	Active
AE2-257	Cedar Neck 69 kV	Active
AE2-334	Clayton-Williamstown 69 kV	Active
AF1-007	Indian River 230 kV I	Active
AF1-015	Easton-Steele 138 kV	Active
AF1-036	Carville 138 kV	Active
AF1-137	Newlinville 34.5 kV	Engineering and Procurement
AF1-160	Silver Lake 69 kV	Active
AF1-174	Newlinville 34.5 kV II	Engineering and Procurement
AF1-208	Quinton-Roadstown 69 kV	Active
AF1-231	New Church 138 kV	Active
AF1-238	Sherman Ave. 69 kV	Active
AF1-239	Sherman Ave-Vineland 69 kV	Active
AF1-244	Kingston 12 kV	Active
AF1-258	Rockawalkin 69 kV	Engineering and Procurement
AF1-259	Price 25 kV	Engineering and Procurement
AF1-262	Upper Pittsgrove 12 kV	Active
AF1-264	Runnemedede 13 kV	Engineering and Procurement
AF2-016	Lewis 138 kV	Active
AF2-019	Middle 69 kV	Active
AF2-020	Carll's Corner 69 kV	Active
AF2-023	Churchtown 69 kV	Active
AF2-024	Mickleton 69 kV	Active
AF2-038	Printz 230 kV	Active
AF2-055	Plantation Creek 69 kV	Active
AF2-060	Wattsville 12 kV	Active
AF2-061	Wattsville 69kV	Active
AF2-172	Newport 12 kV	Withdrawn
AF2-193	Indian River 230 kV I	Active
AF2-194	Indian River 230 kV II	Active
AF2-196	Cedar Neck 69 kV II	Active
AF2-207	Nelson 69 kV	Active
AF2-248	Edgewood 12 kV I	Active
AF2-249	Edgewood 12 kV II	Active
AF2-250	Edgewood 12 kV III	Active
AF2-313	Price 69 kV	Active
AF2-325	Jacktown 12 kV	Active
AF2-358	Airey-Vienna 69 kV	Active
AF2-378	Cambridge 12 kV	Active
AF2-379	Princess Anne 25 kV	Engineering and Procurement

Queue Number	Project Name	Status
AF2-385	Nelson 69 kV	Active
AF2-387	Hillsboro-Steele 138 kV	Active
AF2-409	Vienna 138 kV	Active
AG1-001	US Silica-Unimin 69 kV	Active
AG1-061	Laurel-Sharptown 69 kV	Active
AG1-072	Hillsboro-Steele 138 kV II	Active
AG1-079	New Meredith 69 kV	Active
AG1-087	Milford-Cartanza 230 kV	Active
AG1-110	Silver Lake 69 kV	Active
AG1-111	Churchtown 69 kV	Active
AG1-129	US Silica 69 kV	Active
AG1-149	Kingston 12 kV II	Active
AG1-150	Wattsville 69 kV II	Active
AG1-254	Salem-Woodstown 69 kV	Active
AG1-255	Churchtown-Orchard 230 kV	Active
AG1-263	Gloucester 230 kV	Active
AG1-299	U.S. Silica 12.47 kV	Active
AG1-300	U.S Silica II 12.47 kV	Active
AG1-318	Ocean Bay 12 kV	Active
AG1-360	Costen 25 kV	Active
AG1-397	Walston 12 kV	Active
AG1-429	Tasley 69 kV	Active
AG1-450	Airey-Vienna 69 kV II	Active
AG1-461	Mumford 69 kV	Active
AG1-464	Harrington 69 kV	Active
AG1-497	Cartanza 230 kV	Active
AG1-499	Henry Harris 69 kV	Active
AG1-529	Farmview 138 kV	Active
W1-003	Oak Hall	In Service
W1-004	Oak Hall	In Service
W1-005	Oak Hall	In Service
W1-006	Oak Hall	In Service
W1-062	Clayton 138kV	In Service
W3-032A	Cartanza 230kV	In Service
X1-032	Costen 25kV	In Service
X2-083	Newark 12kV	In Service
X3-008	Todd 69kV	Under Construction
X3-066	Church Hill 69kV	In Service
Y1-065	Rock Springs 500kV	In Service
Y1-079	Wye Mills 69kV	In Service
Y1-080	Dorchester 12kV	In Service
Y3-058	Rockawalkin 69kV	In Service
Z1-082	Lawnside 13kV	In Service
Z2-076	Worcester South 25kV	In Service
Z2-077	Worcester North 25kV	In Service

11.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
PECO_P1-2_220-84	CONTINGENCY 'PECO_P1-2_220-84' /* \$ DELCO \$ 220-84 \$ LB TRIP BRANCH FROM BUS 214235 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 \$ DELCO \$ 220-84 \$ L END
CKT 23030B	CONTINGENCY 'CKT 23030B' OPEN LINE FROM BUS 232002 TO BUS 232013 CIRCUIT 1 /CEDAR CREEK - SILVER RUN 230 END
PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L	CONTINGENCY 'PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L' DISCONNECT BUS 214216 /* POST97 230.000 \$ DELCO \$ PECO_P1- 2_220-97 \$ L DISCONNECT BUS 214234 /* LINWOOD97 230.000 \$ DELCO \$ PECO_P1-2_220-97 \$ L END
TS_P1-2_#T6	CONTINGENCY 'TS_P1-2_#T6' OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 END
PJM500_PS_P1-2_5015	CONTINGENCY 'PJM500_PS_P1-2_5015' /* HOPE CREEK TO RED LION TRIP LINE FROM BUS 200027 TO BUS 200029 CKT 1 /* HOPE CREEK TO RED LION END
DPL_P7_1_DBL_3NC	CONTINGENCY 'DPL_P7_1_DBL_3NC' /* HARMNY-KEENY 230;KEENY- CHRYSLR 230 OPEN LINE FROM BUS 231002 TO BUS 231003 CKT 1 OPEN LINE FROM BUS 231123 TO BUS 231115 CKT 1 END
PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	CONTINGENCY 'PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L' DISCONNECT BUS 213627 /* CHICHST1 230.00 FOULK8 230.00 \$ DELCO \$ PECO_P1-2_220-04 \$ L END
JC-P1-2-JCC-500-003	CONTINGENCY 'JC-P1-2-JCC-500-003' /* NEWFRDM - WINDSOR 500.00 LINE DISCONNECT BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 /* NEWFRDM - WINDSOR 500.00 LINE END

Contingency Name	Contingency Definition
PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L' DISCONNECT BUS 214236 /* LINWOOD85 230.00 \$ DELCO \$ PECO_P1-2_220-85 \$ L END
DPL_P7_1_DBL_4NC	CONTINGENCY 'DPL_P7_1_DBL_4NC' /* RED LION-SILVER RUN 230;RED LION-SILVER RUN 230 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 1 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 2 END
DPL_P1_2_AB2-037 KEENEY	CONTINGENCY 'DPL_P1_2_AB2-037 KEENEY' OPEN LINE FROM BUS 923960 TO BUS 231003 CIRCUIT 2 END
DPL_P1_2_CKT 23001	CONTINGENCY 'DPL_P1_2_CKT 23001' OPEN LINE FROM BUS 231003 TO BUS 232000 CIRCUIT 1 /*#1 KEENEY EHV - STEELE 230 END
PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	CONTINGENCY 'PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B END
DPL_P7_1_DBL_1NCB_FSA	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA' /* #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 OPEN LINE FROM BUS 232000 TO BUS 923960 CKT 2 DISCONNECT BUS 923961 DISCONNECT BUS 923962 END
PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L' TRIP BRANCH FROM BUS 200064 TO BUS 200004 CKT 1 /* PCHBTM1S 500.00 CNASTONE 500.00 \$ CHESCO \$ PECO_P1-2_5012 \$ L END
PJM500_PS_P1-2_HOPE-SILVER	CONTINGENCY 'PJM500_PS_P1-2_HOPE-SILVER' /* HOPE CREEK TO SILVER RUN DISCONNECT BUS 232012 DISCONNECT BUS 232014 END
CKT 23032B	CONTINGENCY 'CKT 23032B' OPEN LINE FROM BUS 232013 TO BUS 232003 CIRCUIT 1 /SILVER RUN - CARTANZA 230 END

Contingency Name	Contingency Definition
PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L	CONTINGENCY 'PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L' DISCONNECT BUS 214235 /* LINWOOD84 230.00 \$ DELCO \$ PECO_P1-2_220-84 \$ L END
DPL_P1_2_CKT 23033-B	CONTINGENCY 'DPL_P1_2_CKT 23033-B' OPEN LINE FROM BUS 962380 TO BUS 232004 CIRCUIT 1 /AG1-087 TAP - MILFORD 230 END
PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PECO_P1-2_5014 \$ L END
Base Case	
PJM500_PS_P1-2_5023	CONTINGENCY 'PJM500_PS_P1-2_5023' /* NEW FREEDOM TO HOPE CREEK TRIP LINE FROM BUS 200012 TO BUS 200029 CKT 1 /* NEW FREEDOM TO HOPE CREEK END
DPL_P1_2_CKT 23031	CONTINGENCY 'DPL_P1_2_CKT 23031' OPEN LINE FROM BUS 232002 TO BUS 232004 CIRCUIT 1 /CEDAR CREEK - MILFORD 230 END
PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC' TRIP BRANCH FROM BUS 214236 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 \$ DELCO \$ 220-85 \$ L END
PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	CONTINGENCY 'PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K' TRIP BRANCH FROM BUS 213489 TO BUS 214221 CKT 1 /* CHICHST1 230.00 CHIREACT_43 230.00 \$ DELCO \$ PECO_P2-1_CHIC435 \$ K END

12 Short Circuit Analysis - Primary POI

The following Breakers are overdutied:

None

12.1 System Reinforcements - Short Circuit

None

13 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AG1-087 was evaluated as a 440.0 MW (Capacity 119.0 MW) injection Tapping the Milford - Steele 230 kV Line in the DPL area. Project AG1-087 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-087 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

13.1 Generation Deliverability

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

None

13.2 Multiple Facility Contingency

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

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 IMPACT
1741701 97	2310 03	KEEN_2 30	230. 0	DP& L	2310 02	HARMO NY	230. 0	DP& L	2	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	804. 0	99.51	103.04	DC	63.69
1741701 15	2320 13	SILVER RUN	230. 0	PJM	2310 04	RL_230	230. 0	DP& L	2	DPL_P4-2_DP11	breaker	790. 0	93.08	109.45	DC	129.1 6
1741701 58	2321 21	INDRV2 &3	138. 0	DP& L	2321 36	CONAW AY	138. 0	DP& L	1	DPL_P4-2_DP4	breaker	242. 0	99.29	104.35	DC	27.13
1741701 89	2321 36	CONAW AY	138. 0	DP& L	2321 18	NSEAFO RD	138. 0	DP& L	1	DPL_P4-2_DP4	breaker	242. 0	94.95	100.01	DC	27.13
1652316 10	9623 80	AG1-087 TAP	230. 0	DP& L	2320 04	MILF_23 0	230. 0	DP& L	1	DPL_P7_1_DBL_1NCB _FSA	tower	550. 0	52.69	120.5	DC	372.9 4
1739754 26	9623 80	AG1-087 TAP	230. 0	DP& L	2320 04	MILF_23 0	230. 0	DP& L	1	DPL_P4-2_DP12	breaker	550. 0	61.19	110.43	DC	270.7 8

13.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPACT
174376 345	2000 12	NEWFRD M	500 .0	PSE& G	2000 28	WINDSOR	500 .0	JCP& L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	2983 .0	112.44	114.43	DC	127.1 9
174376 242	2000 51	ROCKSPG S	500 .0	PJM	2000 65	PCHBTM2 S	500 .0	PEC O	1	PJM500_PS_P2- 3_NFRD5_910	breaker	2905 .0	135.18	138.73	DC	224.6 9
174170 075	2000 64	PCHBTM1 S	500 .0	PEC O	2000 04	CNASTON E	500 .0	BGE	1	TS_P4_#T7_FUR RUN 500_CB 3	breaker	3620 .0	121.36	123.73	DC	181.7 8
167577 644	2000 66	PCHBTM1 N	500 .0	PEC O	2700 72	FUR RUN_500	500 .0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1- 2_5012 \$ L	single	3609 .0	102.97	103.56	DC	45.07
174170 033	2000 66	PCHBTM1 N	500 .0	PEC O	2700 72	FUR RUN_500	500 .0	PJM	1	PJM_500_BG_P4_5_C NSTN_B	breaker	3609 .0	129.3	131.47	DC	165.0 8

ID	FRO M BUS#	FROM BUS	kV	FRO M B U S A R E A	TO BUS#	TO BUS	kV	TO BUS A R E A	CK T ID	CONT NAME	Type	Rati ng MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPA CT
165231 365	2134 90	CHICHST2	230 .0	PEC O	2134 96	CHIREACT _53	230 .0	PEC O	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	841. 0	117.24	119.1	DC	33.8
173975 403	2134 90	CHICHST2	230 .0	PEC O	2134 96	CHIREACT _53	230 .0	PEC O	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	841. 0	117.24	119.1	DC	33.8
165231 366	2134 96	CHIREACT _53	230 .0	PEC O	2139 72	TRAINER	230 .0	PEC O	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	841. 0	117.24	119.1	DC	33.8
173975 402	2134 96	CHIREACT _53	230 .0	PEC O	2139 72	TRAINER	230 .0	PEC O	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	841. 0	117.24	119.1	DC	33.8
165231 339	2135 59	DELCOTAP	230 .0	PEC O	2284 01	MCKLTON	230 .0	AE	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	725. 0	131.6	133.76	DC	33.63
173791 832	2135 59	DELCOTAP	230 .0	PEC O	2284 01	MCKLTON	230 .0	AE	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	725. 0	131.6	133.76	DC	33.63
165231 391	2139 73	TRAINER2	230 .0	PEC O	2135 59	DELCOTAP	230 .0	PEC O	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	841. 0	110.32	112.18	DC	33.8
174170 144	2139 73	TRAINER2	230 .0	PEC O	2135 59	DELCOTAP	230 .0	PEC O	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	841. 0	110.32	112.18	DC	33.8
174170 136	2142 21	CHIREACT _43	230 .0	PEC O	2134 89	CHICHST1	230 .0	PEC O	1	PECO_P4_POST475/* \$ DELCO \$ PECO_P4_POST475 \$ STBK	break er	1770 .0	113.19	114.96	DC	67.46
174376 386	2197 02	HILLTOP_ 2	230 .0	PSE& G	2191 01	BEAVERBK _1	230 .0	PSE& G	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	break er	740. 0	103.8	105.49	DC	27.85
167820 095	2310 00	CLAY_230	230 .0	DP& L	2142 35	LINWOOD 84	230 .0	PEC O	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804. 0	116.83	117.69	DC	17.69
167820 126	2310 01	EDGEMR 5	230 .0	DP& L	2310 00	CLAY_230	230 .0	DP& L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804. 0	115.73	116.5	DC	15.75
175196 561	2310 01	EDGEMR 5	230 .0	DP& L	2142 36	LINWOOD 85	230 .0	PEC O	1	DPL_P1_2_CKT 23015	single	804. 0	114.96	115.73	DC	15.72
174170 112	2310 02	HARMON Y	230 .0	DP& L	2310 01	EDGEMR 5	230 .0	DP& L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	break er	924. 0	110.87	115.59	DC	97.8
165231 690	2310 03	KEEN_230	230 .0	DP& L	2310 02	HARMON Y	230 .0	DP& L	2	DPL_P7_1_DBL_3NC	tower	804. 0	103.49	106.33	DC	50.6
174170 133	2320 00	STEELE	230 .0	DP& L	9239 60	AB2-037 TAP	230 .0	DP& L	2	DPL_P4-2_DP8	break er	727. 0	102.21	109.53	DC	119.2 2
174169 890	2320 02	CEDAR CK	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P4-2_DP11	break er	678. 0	158.19	185.79	DC	210.2 4
164868 064	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	790. 0	117.72	131.79	DC	111.9 3
164868 065	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P2-2_DP1	bus	790. 0	116.83	130.84	DC	111.4 2
164868 342	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P7_1_DBL_1NCB_ FSA	tower	790. 0	152.5	172.77	DC	161.5 1
164868 343	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P7_1_DBL_6NC	tower	790. 0	118.71	132.87	DC	112.5 9
173975 237	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P4-2_DP11	break er	790. 0	153.16	175.59	DC	178.6 8

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
164868397	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	115.55	133.6	DC	203.28
174170099	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_DPL_P4_2_REDLION-HOPE AT51	breaker	1117.0	108.53	116.11	DC	115.67
174376318	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_DPL_P4_2_REDLION-HOPE AT50	breaker	1117.0	107.88	115.3	DC	113.3
174170014	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	DPL_P4-2_DP11	breaker	678.0	107.99	127.03	DC	128.99
166669854	232100	CHURCH	138.0	DP&L	232107	TOWNSEN D	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	182.03	191.71	DC	77.4
174169997	232100	CHURCH	138.0	DP&L	232107	TOWNSEN D	138.0	DP&L	1	DPL_P4-2_DP18_FSA	breaker	348.0	132.62	138.56	DC	51.15
166669864	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	162.31	171.98	DC	77.4
174170066	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P4-2_DP18_FSA	breaker	348.0	115.56	121.51	DC	51.15
166669718	232107	TOWNSEN D	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	PECO_P2-2_CON230BD/* \$ CHESCO \$ PECO_P2-2_CON230BD \$ B	bus	348.0	112.64	117.35	DC	36.31
166669719	232107	TOWNSEN D	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	PECO_P2-2_NEWL230B/* \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B	bus	348.0	112.06	116.77	DC	36.32
166669849	232107	TOWNSEN D	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	187.77	197.44	DC	77.4
166669850	232107	TOWNSEN D	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P7_1_DBL_4NC	tower	348.0	132.04	137.36	DC	45.1
174169970	232107	TOWNSEN D	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P4-2_DP18_FSA	breaker	348.0	141.02	146.97	DC	51.15
174170053	232112	FELTON	138.0	DP&L	232110	CHESWOL D	138.0	DP&L	1	DPL_P4-2_DP11	breaker	242.0	101.52	110.18	DC	46.93
174170024	232114	SHARNGT N	138.0	DP&L	232112	FELTON	138.0	DP&L	1	DPL_P4-2_DP11	breaker	242.0	110.24	118.9	DC	46.93
174169917	232215	KENT	69.0	DP&L	232812	NMEREDT H	69.0	DP&L	1	DPL_P4-2_DP11	breaker	93.0	152.36	163.91	DC	23.79
174169968	232230	TRAP ALT	69.0	DP&L	232232	TRAPPETP	69.0	DP&L	1	DPL_P4-2_DP11	breaker	173.0	138.03	143.84	DC	22.59
174169966	232232	TRAPPETP	69.0	DP&L	232227	EASTN_69	69.0	DP&L	1	DPL_P4-2_DP11	breaker	173.0	138.62	144.63	DC	23.39
174169930	232233	PRESTON	69.0	DP&L	232821	TANYARD	69.0	DP&L	1	DPL_P4-2_DP11	breaker	173.0	152.89	158.91	DC	23.39
173791788	232241	VIENN_69	69.0	DP&L	232838	MARDELA	69.0	DP&L	1	DPL_P4-2_DP6	breaker	64.0	141.48	145.27	DC	5.39
173975288	232812	NMEREDT H	69.0	DP&L	924820	AB2-135 TAP	69.0	DP&L	1	DPL_P4-2_DP11	breaker	93.0	131.77	143.32	DC	23.79
174169947	232820	TALBOT	69.0	DP&L	232230	TRAP ALT	69.0	DP&L	1	DPL_P4-2_DP11	breaker	173.0	147.34	153.36	DC	23.39
174169940	232821	TANYARD	69.0	DP&L	232820	TALBOT	69.0	DP&L	1	DPL_P4-2_DP11	breaker	173.0	149.83	155.84	DC	23.39
173791810	232838	MARDELA	69.0	DP&L	232270	HEBRON	69.0	DP&L	1	DPL_P4-2_DP6	breaker	64.0	131.79	135.58	DC	5.39
174170047	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P4-2_DP8	breaker	727.0	115.95	123.26	DC	119.22

13.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
1675777 49	20001 2	NEWFRDM	500.0	PSE&G	20002 8	WINDSOR	500.0	JCP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	2983.0	112.29	114.28	DC	127.19
1675778 21	20001 4	SALEM	500.0	PSE&G	20006 3	ORCHARD	500.0	AE	1	PJM500_PS_P1-2_5023	operation	2598.0	105.48	106.61	DC	63.41
1675776 17	20005 1	ROCKSPGS	500.0	PJM	20006 5	PCHBTM2S	500.0	PECO	1	JC-P1-2-JCC-500-003	operation	2905.0	133.49	137.02	DC	223.08
1675777 06	20006 4	PCHBTM1S	500.0	PECO	20000 4	CNASTONE	500.0	BGE	1	TS_P1-2_#T6	operation	3620.0	118.44	120.81	DC	181.56
1675777 08	20006 4	PCHBTM1S	500.0	PECO	20000 4	CNASTONE	500.0	BGE	1	Base Case	operation	2920.0	104.53	106.8	DC	140.21
1675776 43	20006 6	PCHBTM1N	500.0	PECO	27007 2	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	3609.0	127.58	129.78	DC	166.66
1675778 16	21348 9	CHICHST1	230.0	PECO	21358 8	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	operation	1079.0	105.85	107.84	DC	46.24
1675777 58	21375 0	LINWOOD 43	230.0	PECO	21422 1	CHIREACT_43	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L	operation	1770.0	113.23	115.0	DC	67.46
1675777 96	21422 0	CHIREACT_39	230.0	PECO	21349 0	CHICHST2	230.0	PECO	1	PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	operation	1770.0	108.07	109.84	DC	67.22
1675777 62	21422 1	CHIREACT_43	230.0	PECO	21348 9	CHICHST1	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L	operation	1770.0	113.19	114.96	DC	67.46
1675777 66	21423 4	LINWOOD 97	230.0	PECO	21421 6	POST97	230.0	PECO	1	PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	operation	1770.0	113.06	114.82	DC	67.22
1675777 92	21428 7	POST39	230.0	PECO	21422 0	CHIREACT_39	230.0	PECO	1	PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	operation	1770.0	108.1	109.87	DC	67.22
1675776 69	21910 0	NEWFRDM	230.0	PSE&G	21970 4	HILLTOP_4	230.0	PSE&G	1	JC-P1-2-JCC-500-003	operation	740.0	127.1	128.52	DC	22.65
1675778 41	21970 2	HILLTOP_2	230.0	PSE&G	21910 1	BEAVERBK_1	230.0	PSE&G	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	740.0	102.76	104.45	DC	27.85

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/DC	MW IMPACT
167820093	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	150.14	153.88	DC	65.39
167820097	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	Base Case	operation	650.0	105.33	108.08	DC	38.97
167820108	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	Base Case	operation	650.0	102.9	105.29	DC	33.84
167820124	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	145.4	148.73	DC	58.23
167820128	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	Base Case	operation	650.0	102.77	105.1	DC	32.89
175196560	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	DPL_P1_2_CKT 23015	operation	804.0	144.58	147.9	DC	58.13
167820314	231002	HARMONY	230.0	DP&L	231001	EDGE MR 5	230.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	924.0	109.67	114.4	DC	97.8
167820407	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	804.0	98.57	102.1	DC	63.69
167820281	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	378.0	116.13	120.77	DC	39.93
167820175	232000	STEELE	230.0	DP&L	231003	KEEN_230	230.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	552.0	126.06	134.09	DC	99.49
167820337	232000	STEELE	230.0	DP&L	923960	AB2-037 TAP	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	102.24	109.52	DC	118.61
167820029	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	678.0	161.82	172.84	DC	190.45
167820031	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	550.0	133.94	138.0	DC	133.54
167820045	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	141.15	158.17	DC	111.42
167820109	232004	MILF_230	230.0	DP&L	232002	CEDAR CK	230.0	DP&L	1	CKT 23032B	operation	738.0	121.47	141.96	DC	152.57
174994711	232004	MILF_230	230.0	DP&L	232003	CARTANZA	230.0	DP&L	1	CKT 23030B	operation	804.0	88.01	108.86	DC	170.98
167577735	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_PS_P1-2_5015	operation	1117.0	106.64	113.78	DC	108.91
167820184	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	PJM500_PS_P1-2_HOPE-SILVER	operation	678.0	106.33	123.48	DC	117.25
167820307	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	2	PJM500_PS_P1-2_HOPE-SILVER	operation	790.0	91.65	106.39	DC	117.41
167820165	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	348.0	131.86	137.78	DC	50.99
167820166	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	Base Case	operation	280.0	127.72	133.59	DC	36.4
167820273	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P1_2_A B2-037 KEENEY	operation	348.0	114.8	120.73	DC	50.99
167820275	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	Base Case	operation	273.0	109.14	115.16	DC	36.4
167820115	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	Base Case	operation	273.0	141.6	147.61	DC	36.4

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS LOADIN G %	POST PROJECTIONS LOADIN G %	AC/D C	MW IMPACT
169557748	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	115.91	123.18	DC	118.61
169557750	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	Base Case	operation	650.0	97.98	104.07	DC	88.8
175196665	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	DPL_P1_1_IR4 GEN	operation	550.0	55.97	107.61	DC	284.0
175385364	962380	AG1-087 TAP	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	157.78	193.97	DC	198.92
175385365	962380	AG1-087 TAP	230.0	DP&L	232000	STEELE	230.0	DP&L	1	Base Case	operation	550.0	102.83	131.16	DC	155.75

13.5 Flow Gate Details - Secondary POI

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

13.5.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165231690	231003	KEEN_230	DP&L	231002	HARMONY	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	103.49	106.33	DC	50.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2490	50/50	0.2490
232405	W1-003 E	1.4646	50/50	1.4646
232406	W1-004 C	0.2490	50/50	0.2490
232407	W1-004 E	1.4646	50/50	1.4646
232408	W1-005 C	0.2490	50/50	0.2490
232409	W1-005 E	1.4646	50/50	1.4646
232410	W1-006 C	0.2490	50/50	0.2490
232411	W1-006 E	1.4646	50/50	1.4646
232412	X1-032 E	0.4744	50/50	0.4744
232417	X3-008 C	0.1423	50/50	0.1423
232418	X3-008 E	1.4713	50/50	1.4713
232423	X3-066 E	0.2275	Adder	0.27
232425	Y1-079 E	0.5518	Adder	0.65
232426	Y1-080 FULL	0.0241	50/50	0.0241
232427	Y1-080 E	0.2508	50/50	0.2508
232428	Y3-058 C	0.1065	50/50	0.1065
232429	Y3-058 E	0.7222	50/50	0.7222
232433	Z2-076 E	0.1976	Adder	0.23
232435	Z2-077 E	0.1976	Adder	0.23
232851	DUP-SFR1	0.9665	Adder	1.14
232907	VN8	2.9541	50/50	2.9541
232912	OH NUG1	0.6749	50/50	0.6749
232914	OH NUG3	0.6749	50/50	0.6749
232915	OH NUG4	0.6749	50/50	0.6749
232916	OH NUG5	0.6749	50/50	0.6749
232919	VN10	0.2174	50/50	0.2174
232922	MR3 (Deactivation : 01/06/2021)	9.0246	Adder	10.62
232926	CRISFLD1	0.1873	50/50	0.1873
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1763	Adder	0.21
233916	AB1-141 E	0.4540	Adder	0.53
233919	AB1-142 E	0.4540	Adder	0.53
233923	AA1-102 C	1.0675	50/50	1.0675
917082	CHERRYDALE E	1.2446	Adder	1.46
918835	AA1-102 E	11.0400	50/50	11.0400
919831	AA2-069 (Suspended)	39.9029	Adder	46.94
923921	AB2-032 C	0.9801	Adder	1.15
923922	AB2-032 E	0.4612	Adder	0.54
923951	AB2-036 C	3.1908	Adder	3.75
923952	AB2-036 E	5.2204	Adder	6.14
923961	AB2-037 C	10.5823	50/50	10.5823
923962	AB2-037 E	17.2876	50/50	17.2876

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C	3.8124	Adder	4.49
924682	AB2-120 E	6.2202	Adder	7.32
924781	AB2-130 C O1	3.1812	Adder	3.74
924782	AB2-130 E O1	5.1904	Adder	6.11
924801	AB2-133 C O1	1.6665	Adder	1.96
924802	AB2-133 E O1	2.1136	Adder	2.49
924821	AB2-135 C	2.1427	Adder	2.52
924822	AB2-135 E	2.4437	Adder	2.87
924831	AB2-136 C	2.9532	50/50	2.9532
924832	AB2-136 E	3.1318	50/50	3.1318
924971	AB2-153 C	0.5477	Adder	0.64
924972	AB2-153 E	0.8936	Adder	1.05
925151	AB2-172 C	2.2543	50/50	2.2543
925152	AB2-172 E	3.6781	50/50	3.6781
925261	AB2-180 C	1.6576	50/50	1.6576
925262	AB2-180 E	0.7104	50/50	0.7104
925271	AB2-185 C	1.2459	Adder	1.47
925272	AB2-185 E	0.5340	Adder	0.63
926131	AC1-091 C	0.6335	Adder	0.75
926132	AC1-091 E	1.0389	Adder	1.22
926141	AC1-092 C	0.6335	Adder	0.75
926142	AC1-092 E	1.0389	Adder	1.22
926151	AC1-093 C	0.5997	Adder	0.71
926152	AC1-093 E	0.9882	Adder	1.16
926161	AC1-094 C	0.5068	Adder	0.6
926162	AC1-094 E	0.8362	Adder	0.98
927031	AC1-190 C	4.1556	50/50	4.1556
927032	AC1-190 E	1.7810	50/50	1.7810
927191	AC1-213 C	0.3210	Adder	0.38
927192	AC1-213 E	0.2107	Adder	0.25
930201	AB1-056 C	6.2956	Adder	7.41
930202	AB1-056 E	17.9289	Adder	21.09
931261	AB1-176 C	0.1176	Adder	0.14
931262	AB1-176 E	0.1940	Adder	0.23
932161	AC2-023 C	3.1445	50/50	3.1445
932162	AC2-023 E	2.2901	50/50	2.2901
933631	AC2-185 C	1.2839	Adder	1.51
933632	AC2-185 E	2.0947	Adder	2.46
933641	AC2-186 C	1.7295	Adder	2.03
933642	AC2-186 E	2.8218	Adder	3.32
936453	AD2-059 BAT	0.4396	50/50	0.4396
936611	AD2-076 C O1	1.4206	Adder	1.67
936612	AD2-076 E O1	2.3179	Adder	2.73
938651	AE1-087 C	1.8984	50/50	1.8984
938652	AE1-087 E	0.4746	50/50	0.4746
938895	AE1-117 C	4.7018	Adder	5.53
938896	AE1-117 E	12.5381	Adder	14.75
939151	AE1-145	2.0065	Adder	2.36
941021	AE2-093 C	2.0087	50/50	2.0087
941022	AE2-093 E	3.2774	50/50	3.2774
941181	AE2-112 C	0.4929	Adder	0.58
941182	AE2-112 E	0.8042	Adder	0.95

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942441	AE2-257 C	3.2308	Adder	3.8
942442	AE2-257 E	8.5176	Adder	10.02
943361	AF1-007 C	0.1857	Adder	0.22
943362	AF1-007 E	0.5279	Adder	0.62
943441	AF1-015 C	0.7569	50/50	0.7569
943442	AF1-015 E	1.0452	50/50	1.0452
943651	AF1-036 C	0.6409	Adder	0.75
943652	AF1-036 E	0.8850	Adder	1.04
945661	AF1-231 C	0.7629	Adder	0.9
945662	AF1-231 E	1.1443	Adder	1.35
945791	AF1-244	0.9497	50/50	0.9497
945931	AF1-258	0.3789	50/50	0.3789
945941	AF1-259	0.0623	Adder	0.07
957443	AF2-038 BAT	2.7182	50/50	2.7182
957611	AF2-055 C	3.5129	Adder	4.13
957612	AF2-055 E	1.5055	Adder	1.77
957661	AF2-060	0.9029	Adder	1.06
957671	AF2-061 O1	4.0130	Adder	4.72
959021	AF2-193 C	11.6333	Adder	13.69
959022	AF2-193 E	31.3805	Adder	36.92
959031	AF2-194 C	11.6333	Adder	13.69
959032	AF2-194 E	31.3805	Adder	36.92
959051	AF2-196 C	0.8811	Adder	1.04
959052	AF2-196 E	2.0560	Adder	2.42
959161	AF2-207 C O1	2.0162	Adder	2.37
959162	AF2-207 E O1	3.0243	Adder	3.56
959571	AF2-248 C	0.3404	Adder	0.4
959572	AF2-248 E	0.3805	Adder	0.45
959581	AF2-249 C	0.0601	Adder	0.07
959582	AF2-249 E	0.2403	Adder	0.28
959591	AF2-250 C	0.1101	Adder	0.13
959592	AF2-250 E	0.0851	Adder	0.1
960221	AF2-313 C	0.9895	Adder	1.16
960222	AF2-313 E	0.5610	Adder	0.66
960341	AF2-325 C	0.4995	50/50	0.4995
960342	AF2-325 E	0.6898	50/50	0.6898
960671	AF2-358 C O1	7.1712	50/50	7.1712
960672	AF2-358 E O1	4.7808	50/50	4.7808
960871	AF2-378 C	0.1321	50/50	0.1321
960872	AF2-378 E	0.1833	50/50	0.1833
960881	AF2-379 C	0.1947	50/50	0.1947
960882	AF2-379 E	0.2682	50/50	0.2682
960941	AF2-385 C	4.7805	Adder	5.62
960942	AF2-385 E	2.7203	Adder	3.2
960961	AF2-387 C O1	6.5441	Adder	7.7
960962	AF2-387 E O1	3.2819	Adder	3.86
961181	AF2-409 O1	12.2380	50/50	12.2380
962161	AG1-061 C O2	7.8860	50/50	7.8860
962162	AG1-061 E O2	5.2573	50/50	5.2573
962261	AG1-072	2.6039	Adder	5.78
962302	AG1-079 E	0.0616	Adder	0.14
962381	AG1-087 C O2	6.1656	Adder	13.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962382	AG1-087 E O2	16.6317	Adder	36.92
963001	AG1-149	0.3561	50/50	0.3561
963011	AG1-150	2.1269	Adder	4.72
964551	AG1-318 C	0.0156	Adder	0.03
964552	AG1-318 E	0.0364	Adder	0.08
964962	AG1-360 E	1.0377	50/50	1.0377
965321	AG1-397 C	0.2215	Adder	0.49
965322	AG1-397 E	0.3056	Adder	0.68
965611	AG1-429 C O2	1.8757	Adder	4.16
965612	AG1-429 E O2	1.2501	Adder	2.77
965821	AG1-450	2.9863	50/50	2.9863
965921	AG1-461 C O2	1.0160	Adder	2.26
965922	AG1-461 E O2	0.5471	Adder	1.21
965951	AG1-464 C O2	0.9649	Adder	2.14
965952	AG1-464 E O2	1.4473	Adder	3.21
966281	AG1-497 C O2	3.9390	Adder	8.74
966282	AG1-497 E O2	1.6881	Adder	3.75
966601	AG1-529 C	2.4530	Adder	5.45
966602	AG1-529 E	1.3093	Adder	2.91
WEC	WEC	0.1647	Confirmed LTF	0.1647
LGEE	LGEE	0.3311	Confirmed LTF	0.3311
CPL	CPL	0.4068	Confirmed LTF	0.4068
CBM-W2	CBM-W2	4.8115	Confirmed LTF	4.8115
NY	NY	0.4966	Confirmed LTF	0.4966
TVA	TVA	0.7644	Confirmed LTF	0.7644
O-066	O-066	9.1528	Confirmed LTF	9.1528
SIGE	SIGE	0.1982	Confirmed LTF	0.1982
CBM-S2	CBM-S2	6.0552	Confirmed LTF	6.0552
CBM-S1	CBM-S1	0.2063	Confirmed LTF	0.2063
G-007	G-007	1.4269	Confirmed LTF	1.4269
MEC	MEC	0.8390	Confirmed LTF	0.8390
LAGN	LAGN	0.9538	Confirmed LTF	0.9538
CBM-W1	CBM-W1	7.2624	Confirmed LTF	7.2624

13.5.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174170115	232013	SILVER RUN	PJM	231004	RL_230	DP&L	2	DPL_P4-2_DP11	breaker	790.0	93.08	109.45	DC	129.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.8621	Adder	3.37
232407	W1-004 E	2.8621	Adder	3.37
232409	W1-005 E	2.8621	Adder	3.37
232411	W1-006 E	2.8621	Adder	3.37
232412	X1-032 E	0.9178	Adder	1.08
232418	X3-008 E	1.8799	Adder	2.21
232427	Y1-080 E	0.3970	Adder	0.47
232429	Y3-058 E	1.3356	Adder	1.57
232433	Z2-076 E	0.4774	Adder	0.56
232435	Z2-077 E	0.4774	Adder	0.56
232616	GEN FOOD	0.7410	50/50	0.7410
232851	DUP-SFR1	2.2884	Adder	2.69
232899	W1-062	2.1721	50/50	2.1721
232901	NORTHST	2.2425	50/50	2.2425
232904	IR4	18.5078	50/50	18.5078
232920	IR10	0.7176	50/50	0.7176
232922	MR3 (Deactivation : 01/06/2021)	31.5170	50/50	31.5170
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.1869	50/50	0.1869
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.5077	50/50	0.5077
233920	W3-032A-CTG1	9.4086	50/50	9.4086
233921	W3-032A-STG1	5.6647	50/50	5.6647
917082	CHERRYDALE E	2.8629	Adder	3.37
918835	AA1-102 E	21.3079	Adder	25.07
919831	AA2-069 (Suspended)	139.3545	50/50	139.3545
924681	AB2-120 C	8.7795	Adder	10.33
924682	AB2-120 E	14.3244	Adder	16.85
924781	AB2-130 C O1	7.2835	Adder	8.57
924782	AB2-130 E O1	11.8837	Adder	13.98
924831	AB2-136 C	4.2643	Adder	5.02
924832	AB2-136 E	4.5222	Adder	5.32
925151	AB2-172 C	2.8805	Adder	3.39
925152	AB2-172 E	4.6998	Adder	5.53
925261	AB2-180 C	3.0652	Adder	3.61
925262	AB2-180 E	1.3137	Adder	1.55
926131	AC1-091 C	2.2398	50/50	2.2398
926132	AC1-091 E	3.6733	50/50	3.6733
926141	AC1-092 C	2.2398	50/50	2.2398
926142	AC1-092 E	3.6733	50/50	3.6733
926151	AC1-093 C	2.1203	50/50	2.1203

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926152	AC1-093 E	3.4941	50/50	3.4941
926161	AC1-094 C	1.7918	50/50	1.7918
926162	AC1-094 E	2.9565	50/50	2.9565
927031	AC1-190 C	5.4326	Adder	6.39
927032	AC1-190 E	2.3283	Adder	2.74
927191	AC1-213 C	0.7178	Adder	0.84
927192	AC1-213 E	0.4710	Adder	0.55
930201	AB1-056 C	18.3411	50/50	18.3411
930202	AB1-056 E	52.2323	50/50	52.2323
932161	AC2-023 C	5.7078	Adder	6.72
932162	AC2-023 E	4.1570	Adder	4.89
933631	AC2-185 C	4.5393	50/50	4.5393
933632	AC2-185 E	7.4063	50/50	7.4063
933641	AC2-186 C	4.1678	Adder	4.9
933642	AC2-186 E	6.8001	Adder	8.0
938651	AE1-087 C	2.4257	Adder	2.85
938652	AE1-087 E	0.6064	Adder	0.71
938895	AE1-117 C	13.5370	50/50	13.5370
938896	AE1-117 E	36.0986	50/50	36.0986
939151	AE1-145	4.6192	Adder	5.43
942441	AE2-257 C	9.3179	50/50	9.3179
942442	AE2-257 E	24.5653	50/50	24.5653
943361	AF1-007 C	0.5411	50/50	0.5411
943362	AF1-007 E	1.5379	50/50	1.5379
945661	AF1-231 C	1.7547	Adder	2.06
945662	AF1-231 E	2.6321	Adder	3.1
945791	AF1-244	1.8329	Adder	2.16
945931	AF1-258	0.7006	Adder	0.82
957611	AF2-055 C	8.0807	Adder	9.51
957612	AF2-055 E	3.4632	Adder	4.07
957661	AF2-060	2.0787	Adder	2.45
957671	AF2-061 O1	9.2385	Adder	10.87
959021	AF2-193 C	33.8912	50/50	33.8912
959022	AF2-193 E	91.4208	50/50	91.4208
959031	AF2-194 C	33.8912	50/50	33.8912
959032	AF2-194 E	91.4208	50/50	91.4208
959051	AF2-196 C	2.5412	50/50	2.5412
959052	AF2-196 E	5.9296	50/50	5.9296
959161	AF2-207 C O1	4.5482	Adder	5.35
959162	AF2-207 E O1	6.8224	Adder	8.03
959571	AF2-248 C	0.7654	Adder	0.9
959572	AF2-248 E	0.8555	Adder	1.01
959581	AF2-249 C	0.1351	Adder	0.16
959582	AF2-249 E	0.5403	Adder	0.64
959591	AF2-250 C	0.2476	Adder	0.29
959592	AF2-250 E	0.1914	Adder	0.23
960341	AF2-325 C	0.6916	Adder	0.81
960342	AF2-325 E	0.9551	Adder	1.12
960671	AF2-358 C O1	11.5352	Adder	13.57
960672	AF2-358 E O1	7.6901	Adder	9.05
960871	AF2-378 C	0.1871	Adder	0.22
960872	AF2-378 E	0.2596	Adder	0.31

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.3722	Adder	0.44
960882	AF2-379 E	0.5129	Adder	0.6
960941	AF2-385 C	10.7840	Adder	12.69
960942	AF2-385 E	6.1365	Adder	7.22
961181	AF2-409 O1	22.0694	Adder	25.96
962161	AG1-061 C O2	7.8332	Adder	17.39
962162	AG1-061 E O2	5.2222	Adder	11.59
962302	AG1-079 E	0.0953	Adder	0.21
962381	AG1-087 C O2	34.9325	50/50	34.9325
962382	AG1-087 E O2	94.2296	50/50	94.2296
963001	AG1-149	0.3643	Adder	0.81
963011	AG1-150	4.8964	Adder	10.87
964551	AG1-318 C	0.0845	50/50	0.0845
964552	AG1-318 E	0.1972	50/50	0.1972
964962	AG1-360 E	1.0641	Adder	2.36
965321	AG1-397 C	0.5062	Adder	1.12
965322	AG1-397 E	0.6983	Adder	1.55
965611	AG1-429 C O2	4.3146	Adder	9.58
965612	AG1-429 E O2	2.8756	Adder	6.38
965821	AG1-450	2.5051	Adder	5.56
965921	AG1-461 C O2	2.3671	Adder	5.25
965922	AG1-461 E O2	1.2746	Adder	2.83
965951	AG1-464 C O2	2.3252	Adder	5.16
965952	AG1-464 E O2	3.4878	Adder	7.74
966281	AG1-497 C O2	25.9552	50/50	25.9552
966282	AG1-497 E O2	11.1236	50/50	11.1236
966601	AG1-529 C	13.8739	50/50	13.8739
966602	AG1-529 E	7.4051	50/50	7.4051
G-007A	G-007A	2.5725	Confirmed LTF	2.5725
VFT	VFT	5.8115	Confirmed LTF	5.8115
CALDERWOOD	CALDERWOOD	0.2291	Confirmed LTF	0.2291
PRAIRIE	PRAIRIE	1.1623	Confirmed LTF	1.1623
CHEOAH	CHEOAH	0.2312	Confirmed LTF	0.2312
CBM-N	CBM-N	0.8496	Confirmed LTF	0.8496
COTTONWOOD	COTTONWOOD	0.9576	Confirmed LTF	0.9576
HAMLET	HAMLET	0.2772	Confirmed LTF	0.2772
GIBSON	GIBSON	0.2435	Confirmed LTF	0.2435
BLUEG	BLUEG	0.7760	Confirmed LTF	0.7760
TRIMBLE	TRIMBLE	0.2482	Confirmed LTF	0.2482
CATAWBA	CATAWBA	0.1659	Confirmed LTF	0.1659

13.5.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174170158	232121	INDRV2&3	DP&L	232136	CONAWAY	DP&L	1	DPL_P4-2_DP4	breaker	242.0	99.29	104.35	DC	27.13

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.6948	Adder	0.82
232407	W1-004 E	0.6948	Adder	0.82
232409	W1-005 E	0.6948	Adder	0.82
232411	W1-006 E	0.6948	Adder	0.82
232412	X1-032 E	0.2115	Adder	0.25
232432	Z2-076 C	0.0698	50/50	0.0698
232433	Z2-076 E	0.2227	50/50	0.2227
232434	Z2-077 C	0.0698	50/50	0.0698
232435	Z2-077 E	0.2227	50/50	0.2227
232851	DUP-SFR1	-2.1504	Adder	-2.53
232904	IR4	6.5875	50/50	6.5875
232920	IR10	0.2978	50/50	0.2978
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.0824	50/50	0.0824
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2239	50/50	0.2239
917082	CHERRYDALE E	0.6959	Adder	0.82
918835	AA1-102 E	4.8466	Adder	5.7
924681	AB2-120 C	2.1502	Adder	2.53
924682	AB2-120 E	3.5082	Adder	4.13
930201	AB1-056 C	6.5282	50/50	6.5282
930202	AB1-056 E	18.5913	50/50	18.5913
938895	AE1-117 C	5.8651	50/50	5.8651
938896	AE1-117 E	15.6403	50/50	15.6403
939151	AE1-145	1.1247	Adder	1.32
942441	AE2-257 C	3.8706	50/50	3.8706
942442	AE2-257 E	10.2042	50/50	10.2042
943361	AF1-007 C	0.1926	50/50	0.1926
943362	AF1-007 E	0.5474	50/50	0.5474
945661	AF1-231 C	0.4271	Adder	0.5
945662	AF1-231 E	0.6406	Adder	0.75
945791	AF1-244	0.4169	Adder	0.49
957611	AF2-055 C	1.9641	Adder	2.31
957612	AF2-055 E	0.8418	Adder	0.99
957661	AF2-060	0.5061	Adder	0.6
957671	AF2-061 O1	2.2494	Adder	2.65
959021	AF2-193 C	12.0630	50/50	12.0630
959022	AF2-193 E	32.5398	50/50	32.5398
959031	AF2-194 C	12.0630	50/50	12.0630
959032	AF2-194 E	32.5398	50/50	32.5398
959051	AF2-196 C	1.0556	50/50	1.0556
959052	AF2-196 E	2.4631	50/50	2.4631

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.0714	Adder	0.08
960882	AF2-379 E	0.0984	Adder	0.12
962161	AG1-061 C O2	1.5717	Adder	3.49
962162	AG1-061 E O2	1.0478	Adder	2.33
962381	AG1-087 C O2	3.3050	Adder	7.34
962382	AG1-087 E O2	8.9152	Adder	19.79
963001	AG1-149	0.0829	Adder	0.18
963011	AG1-150	1.1922	Adder	2.65
964551	AG1-318 C	0.0364	50/50	0.0364
964552	AG1-318 E	0.0849	50/50	0.0849
964962	AG1-360 E	0.2452	Adder	0.54
965321	AG1-397 C	0.1060	Adder	0.24
965322	AG1-397 E	0.1463	Adder	0.32
965611	AG1-429 C O2	1.0487	Adder	2.33
965612	AG1-429 E O2	0.6989	Adder	1.55
965953	AG1-464 BAT	14.2400	50/50	14.2400
CALDERWOOD	CALDERWOOD	0.0164	Confirmed LTF	0.0164
NY	NY	0.0254	Confirmed LTF	0.0254
PRAIRIE	PRAIRIE	0.0852	Confirmed LTF	0.0852
O-066	O-066	0.3500	Confirmed LTF	0.3500
SIGE	SIGE	0.0020	Confirmed LTF	0.0020
CHEOAH	CHEOAH	0.0165	Confirmed LTF	0.0165
COTTONWOOD	COTTONWOOD	0.0693	Confirmed LTF	0.0693
G-007	G-007	0.0588	Confirmed LTF	0.0588
HAMLET	HAMLET	0.0191	Confirmed LTF	0.0191
GIBSON	GIBSON	0.0180	Confirmed LTF	0.0180
BLUEG	BLUEG	0.0573	Confirmed LTF	0.0573
TRIMBLE	TRIMBLE	0.0184	Confirmed LTF	0.0184
CATAWBA	CATAWBA	0.0116	Confirmed LTF	0.0116

13.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174170189	232136	CONAWAY	DP&L	232118	NSEAFORD	DP&L	1	DPL_P4-2_DP4	breaker	242.0	94.95	100.01	DC	27.13

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.6948	Adder	0.82
232407	W1-004 E	0.6948	Adder	0.82
232409	W1-005 E	0.6948	Adder	0.82
232411	W1-006 E	0.6948	Adder	0.82
232412	X1-032 E	0.2115	Adder	0.25
232432	Z2-076 C	0.0698	50/50	0.0698
232433	Z2-076 E	0.2227	50/50	0.2227
232434	Z2-077 C	0.0698	50/50	0.0698
232435	Z2-077 E	0.2227	50/50	0.2227
232851	DUP-SFR1	-2.1504	Adder	-2.53
232904	IR4	6.5875	50/50	6.5875
232920	IR10	0.2978	50/50	0.2978
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.0824	50/50	0.0824
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2239	50/50	0.2239
917082	CHERRYDALE E	0.6959	Adder	0.82
918835	AA1-102 E	4.8466	Adder	5.7
924681	AB2-120 C	2.1502	Adder	2.53
924682	AB2-120 E	3.5082	Adder	4.13
930201	AB1-056 C	6.5282	50/50	6.5282
930202	AB1-056 E	18.5913	50/50	18.5913
938895	AE1-117 C	5.8651	50/50	5.8651
938896	AE1-117 E	15.6403	50/50	15.6403
939151	AE1-145	1.1247	Adder	1.32
942441	AE2-257 C	3.8706	50/50	3.8706
942442	AE2-257 E	10.2042	50/50	10.2042
943361	AF1-007 C	0.1926	50/50	0.1926
943362	AF1-007 E	0.5474	50/50	0.5474
945661	AF1-231 C	0.4271	Adder	0.5
945662	AF1-231 E	0.6406	Adder	0.75
945791	AF1-244	0.4169	Adder	0.49
957611	AF2-055 C	1.9641	Adder	2.31
957612	AF2-055 E	0.8418	Adder	0.99
957661	AF2-060	0.5061	Adder	0.6
957671	AF2-061 O1	2.2494	Adder	2.65
959021	AF2-193 C	12.0630	50/50	12.0630
959022	AF2-193 E	32.5398	50/50	32.5398
959031	AF2-194 C	12.0630	50/50	12.0630
959032	AF2-194 E	32.5398	50/50	32.5398
959051	AF2-196 C	1.0556	50/50	1.0556
959052	AF2-196 E	2.4631	50/50	2.4631

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.0714	Adder	0.08
960882	AF2-379 E	0.0984	Adder	0.12
962161	AG1-061 C O2	1.5717	Adder	3.49
962162	AG1-061 E O2	1.0478	Adder	2.33
962381	AG1-087 C O2	3.3050	Adder	7.34
962382	AG1-087 E O2	8.9152	Adder	19.79
963001	AG1-149	0.0829	Adder	0.18
963011	AG1-150	1.1922	Adder	2.65
964551	AG1-318 C	0.0364	50/50	0.0364
964552	AG1-318 E	0.0849	50/50	0.0849
964962	AG1-360 E	0.2452	Adder	0.54
965321	AG1-397 C	0.1060	Adder	0.24
965322	AG1-397 E	0.1463	Adder	0.32
965611	AG1-429 C O2	1.0487	Adder	2.33
965612	AG1-429 E O2	0.6989	Adder	1.55
965953	AG1-464 BAT	14.2400	50/50	14.2400
CALDERWOOD	CALDERWOOD	0.0164	Confirmed LTF	0.0164
NY	NY	0.0254	Confirmed LTF	0.0254
PRAIRIE	PRAIRIE	0.0852	Confirmed LTF	0.0852
O-066	O-066	0.3500	Confirmed LTF	0.3500
SIGE	SIGE	0.0020	Confirmed LTF	0.0020
CHEOAH	CHEOAH	0.0165	Confirmed LTF	0.0165
COTTONWOOD	COTTONWOOD	0.0693	Confirmed LTF	0.0693
G-007	G-007	0.0588	Confirmed LTF	0.0588
HAMLET	HAMLET	0.0191	Confirmed LTF	0.0191
GIBSON	GIBSON	0.0180	Confirmed LTF	0.0180
BLUEG	BLUEG	0.0573	Confirmed LTF	0.0573
TRIMBLE	TRIMBLE	0.0184	Confirmed LTF	0.0184
CATAWBA	CATAWBA	0.0116	Confirmed LTF	0.0116

13.5.5 Index 5

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165231610	962380	AG1-087 TAP	DP&L	232004	MILF_230	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	550.0	52.69	120.5	DC	372.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.9339	Adder	1.1
232407	W1-004 E	0.9339	Adder	1.1
232409	W1-005 E	0.9339	Adder	1.1
232411	W1-006 E	0.9339	Adder	1.1
232412	X1-032 E	0.4371	50/50	0.4371
232417	X3-008 C	0.3407	50/50	0.3407
232418	X3-008 E	3.5238	50/50	3.5238
232422	X3-066 C	0.1289	50/50	0.1289
232423	X3-066 E	1.0466	50/50	1.0466
232424	Y1-079 C	0.2572	50/50	0.2572
232425	Y1-079 E	2.6601	50/50	2.6601
232426	Y1-080 FULL	0.0475	50/50	0.0475
232427	Y1-080 E	0.4935	50/50	0.4935
232428	Y3-058 C	0.1208	50/50	0.1208
232429	Y3-058 E	0.8194	50/50	0.8194
232902	EASTMUNI	4.8444	50/50	4.8444
232907	VN8	6.3721	50/50	6.3721
232919	VN10	0.3991	50/50	0.3991
232926	CRISFLD1	0.1803	50/50	0.1803
233915	AB1-141 C	0.7394	50/50	0.7394
233916	AB1-141 E	2.1870	50/50	2.1870
233918	AB1-142 C	0.7394	50/50	0.7394
233919	AB1-142 E	2.1870	50/50	2.1870
233923	AA1-102 C	1.0280	50/50	1.0280
233931	AB2-179 C	6.7024	50/50	6.7024
293670	O-025 C	0.1035	50/50	0.1035
917082	CHERRYDALE E	0.9201	Adder	1.08
918835	AA1-102 E	10.6308	50/50	10.6308
923921	AB2-032 C	4.7211	50/50	4.7211
923922	AB2-032 E	2.2217	50/50	2.2217
923951	AB2-036 C	15.9510	50/50	15.9510
923952	AB2-036 E	26.0976	50/50	26.0976
924801	AB2-133 C O1	7.2228	50/50	7.2228
924802	AB2-133 E O1	9.1606	50/50	9.1606
924821	AB2-135 C	6.9909	50/50	6.9909
924822	AB2-135 E	7.9729	50/50	7.9729
924831	AB2-136 C	6.3853	50/50	6.3853
924832	AB2-136 E	6.7715	50/50	6.7715
924971	AB2-153 C	2.6383	50/50	2.6383
924972	AB2-153 E	4.3045	50/50	4.3045
925151	AB2-172 C	5.3994	50/50	5.3994

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925152	AB2-172 E	8.8096	50/50	8.8096
925254	AB2-179 E	2.1871	50/50	2.1871
925261	AB2-180 C	1.8805	50/50	1.8805
925262	AB2-180 E	0.8059	50/50	0.8059
925271	AB2-185 C	6.0067	50/50	6.0067
925272	AB2-185 E	2.5743	50/50	2.5743
927031	AC1-190 C	9.7801	50/50	9.7801
927032	AC1-190 E	4.1915	50/50	4.1915
927191	AC1-213 C	0.3498	50/50	0.3498
927192	AC1-213 E	0.2295	50/50	0.2295
931261	AB1-176 C	0.5412	50/50	0.5412
931262	AB1-176 E	0.8925	50/50	0.8925
932161	AC2-023 C	3.9996	50/50	3.9996
932162	AC2-023 E	2.9129	50/50	2.9129
936611	AD2-076 C O1	6.8687	50/50	6.8687
936612	AD2-076 E O1	11.2069	50/50	11.2069
938651	AE1-087 C	4.5469	50/50	4.5469
938652	AE1-087 E	1.1367	50/50	1.1367
941021	AE2-093 C	8.3021	50/50	8.3021
941022	AE2-093 E	13.5456	50/50	13.5456
941181	AE2-112 C	2.3830	50/50	2.3830
941182	AE2-112 E	3.8881	50/50	3.8881
943441	AF1-015 C	3.1282	50/50	3.1282
943442	AF1-015 E	4.3199	50/50	4.3199
943651	AF1-036 C	3.0987	50/50	3.0987
943652	AF1-036 E	4.2791	50/50	4.2791
945661	AF1-231 C	0.5662	Adder	0.67
945662	AF1-231 E	0.8492	Adder	1.0
945791	AF1-244	0.9145	50/50	0.9145
945931	AF1-258	0.4298	50/50	0.4298
945941	AF1-259	0.2868	50/50	0.2868
957611	AF2-055 C	2.5972	Adder	3.06
957612	AF2-055 E	1.1131	Adder	1.31
959161	AF2-207 C O1	2.0974	50/50	2.0974
959162	AF2-207 E O1	3.1462	50/50	3.1462
959571	AF2-248 C	0.3604	50/50	0.3604
959572	AF2-248 E	0.4028	50/50	0.4028
959581	AF2-249 C	0.0636	50/50	0.0636
959582	AF2-249 E	0.2544	50/50	0.2544
959591	AF2-250 C	0.1166	50/50	0.1166
959592	AF2-250 E	0.0901	50/50	0.0901
960221	AF2-313 C	4.5522	50/50	4.5522
960222	AF2-313 E	2.5808	50/50	2.5808
960341	AF2-325 C	1.1215	50/50	1.1215
960342	AF2-325 E	1.5488	50/50	1.5488
960671	AF2-358 C O1	13.8486	50/50	13.8486
960672	AF2-358 E O1	9.2324	50/50	9.2324
960871	AF2-378 C	0.2907	50/50	0.2907
960872	AF2-378 E	0.4033	50/50	0.4033
960881	AF2-379 C	0.1992	50/50	0.1992
960882	AF2-379 E	0.2745	50/50	0.2745
960941	AF2-385 C	4.9731	50/50	4.9731

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960942	AF2-385 E	2.8299	50/50	2.8299
960961	AF2-387 C O1	32.7073	50/50	32.7073
960962	AF2-387 E O1	16.4027	50/50	16.4027
961181	AF2-409 O1	26.3980	50/50	26.3980
962161	AG1-061 C O2	11.8464	50/50	11.8464
962162	AG1-061 E O2	7.8976	50/50	7.8976
962261	AG1-072	24.5550	50/50	24.5550
962302	AG1-079 E	0.2162	50/50	0.2162
962381	AG1-087 C O2	100.8644	50/50	100.8644
962382	AG1-087 E O2	272.0796	50/50	272.0796
963001	AG1-149	0.3429	50/50	0.3429
964962	AG1-360 E	0.9562	50/50	0.9562
965611	AG1-429 C O2	1.3867	Adder	3.08
965612	AG1-429 E O2	0.9242	Adder	2.05
965821	AG1-450	5.8745	50/50	5.8745
CALDERWOOD	CALDERWOOD	0.0199	Confirmed LTF	0.0199
NY	NY	0.0498	Confirmed LTF	0.0498
PRAIRIE	PRAIRIE	0.1059	Confirmed LTF	0.1059
O-066	O-066	0.7672	Confirmed LTF	0.7672
SIGE	SIGE	0.0077	Confirmed LTF	0.0077
CHEOAH	CHEOAH	0.0200	Confirmed LTF	0.0200
COTTONWOOD	COTTONWOOD	0.0840	Confirmed LTF	0.0840
G-007	G-007	0.1396	Confirmed LTF	0.1396
HAMLET	HAMLET	0.0219	Confirmed LTF	0.0219
GIBSON	GIBSON	0.0224	Confirmed LTF	0.0224
BLUEG	BLUEG	0.0712	Confirmed LTF	0.0712
TRIMBLE	TRIMBLE	0.0228	Confirmed LTF	0.0228
CATAWBA	CATAWBA	0.0137	Confirmed LTF	0.0137

13.5.6 Index 6

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 IMPAC T
174376345	200012	NEWFRDM	PSE&G	200028	WINDSOR	JCP&L	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	2983.0	112.44	114.43	DC	127.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200036	SALEM-G1 (Deactivation : 01/10/2020)	51.5855	50/50	51.5855
200037	SALEM-G2 (Deactivation : 01/04/2020)	51.2748	50/50	51.2748
200039	HOPE CG1 (Deactivation : 01/10/2019)	52.9948	50/50	52.9948
200052	ROCKSP 1	6.4943	50/50	6.4943
200053	ROCKSP 2	6.4555	50/50	6.4555
200054	ROCKSP 3	6.5524	50/50	6.5524
200055	ROCKSP 4	6.5524	50/50	6.5524
200062	SALEM G3	13.6128	50/50	13.6128
200203	Y1-065-STG	22.1561	50/50	22.1561
200204	Y1-065-CTG1	12.8120	50/50	12.8120
200205	Y1-065-CTG2	12.8120	50/50	12.8120
218661	EHAMPSOLAR E	0.2522	Adder	0.3
219137	THOSOLAR C (Deactivation : 01/06/2015)	0.0854	Adder	0.1
219138	THOSOLAR E	0.1394	Adder	0.16
219259	KINSLEYDEP E	0.4328	Adder	0.51
219273	CLEANLIGHT E	0.2505	Adder	0.29
219288	REEVES ST E	0.9302	Adder	1.09
219292	REEVESSO E	0.0890	Adder	0.1
219624	KINSLEYBEA E	0.3467	Adder	0.41
219687	LUMSOLAR_N E	0.2866	Adder	0.34
219726	BAT.STORG E	0.1366	Adder	0.16
227801	ONTC&DCT	7.1647	Adder	8.43
227842	MARINGEN	1.4474	Adder	1.7
227881	GRENWCHG	0.2964	Adder	0.35
227928	V4-067E	0.2966	Adder	0.35
228102	BLE#2 ST (Deactivation : 30/04/2019)	29.7918	Adder	35.05
228251	CARLLS#4	0.9940	Adder	1.17
228261	V4-054E	1.2843	Adder	1.51
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.3417	Adder	0.4
228357	V2-046E	2.3894	Adder	2.81
228712	V2-041E	0.5327	Adder	0.63
228721	V2-035E	0.0685	Adder	0.08
231903	GEN4	2.5251	Adder	2.97
231904	DC1 NUG	6.5422	Adder	7.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231905	DC2 NUG	6.5422	Adder	7.7
232405	W1-003 E	3.0209	Adder	3.55
232407	W1-004 E	3.0209	Adder	3.55
232409	W1-005 E	3.0209	Adder	3.55
232411	W1-006 E	3.0209	Adder	3.55
232412	X1-032 E	0.9735	Adder	1.15
232418	X3-008 E	2.9762	Adder	3.5
232423	X3-066 E	0.6729	Adder	0.79
232425	Y1-079 E	1.4435	Adder	1.7
232427	Y1-080 E	0.5067	Adder	0.6
232429	Y3-058 E	1.4819	Adder	1.74
232433	Z2-076 E	0.4922	Adder	0.58
232435	Z2-077 E	0.4922	Adder	0.58
232851	DUP-SFR1	2.4473	Adder	2.88
232901	NORTHST	2.1511	50/50	2.1511
232922	MR3 (Deactivation : 01/06/2021)	25.6979	Adder	30.23
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.4412	Adder	0.52
233916	AB1-141 E	1.4385	Adder	1.69
233919	AB1-142 E	1.4385	Adder	1.69
233920	W3-032A-CTG1	9.0252	50/50	9.0252
233921	W3-032A-STG1	5.4338	50/50	5.4338
233931	AB2-179 C	8.1845	Adder	9.63
902092	W1-130E	1.1294	Adder	1.33
902432	W2-030 E	1.1250	Adder	1.32
910862	OWENSCORIN E	0.2391	Adder	0.28
917082	CHERRYDALE E	3.0210	Adder	3.55
918835	AA1-102 E	22.6273	Adder	26.62
919831	AA2-069 (Suspended)	113.6250	Adder	133.68
923921	AB2-032 C	3.1054	Adder	3.65
923922	AB2-032 E	1.4613	Adder	1.72
923951	AB2-036 C	8.1341	Adder	9.57
923952	AB2-036 E	13.3083	Adder	15.66
923961	AB2-037 C	18.2024	Adder	21.41
923962	AB2-037 E	29.7362	Adder	34.98
924051	AB2-049 C	0.2429	Adder	0.29
924052	AB2-049 E	0.3963	Adder	0.47
924531	AB2-102 C	49.4725	Adder	58.2
924532	AB2-102 E	1.0994	Adder	1.29
924681	AB2-120 C	9.2588	Adder	10.89
924682	AB2-120 E	15.1065	Adder	17.77
924702	AB2-122 E (Withdrawn : 05/05/2020)	0.2225	Adder	0.26
924781	AB2-130 C O1	7.8810	Adder	9.27
924782	AB2-130 E O1	12.8584	Adder	15.13
924801	AB2-133 C O1	5.6154	Adder	6.61
924802	AB2-133 E O1	7.1219	Adder	8.38
924821	AB2-135 C	6.9352	Adder	8.16
924822	AB2-135 E	7.9094	Adder	9.31
924831	AB2-136 C	5.9692	Adder	7.02
924832	AB2-136 E	6.3303	Adder	7.45
924971	AB2-153 C	1.7353	Adder	2.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924972	AB2-153 E	2.8314	Adder	3.33
925151	AB2-172 C	4.5603	Adder	5.37
925152	AB2-172 E	7.4404	Adder	8.75
925254	AB2-179 E	2.6707	Adder	3.14
925261	AB2-180 C	3.4011	Adder	4.0
925262	AB2-180 E	1.4576	Adder	1.71
925271	AB2-185 C	3.2594	Adder	3.83
925272	AB2-185 E	1.3969	Adder	1.64
926131	AC1-091 C	2.2295	50/50	2.2295
926132	AC1-091 E	3.6564	50/50	3.6564
926141	AC1-092 C	2.2295	50/50	2.2295
926142	AC1-092 E	3.6564	50/50	3.6564
926151	AC1-093 C	2.1106	50/50	2.1106
926152	AC1-093 E	3.4781	50/50	3.4781
926161	AC1-094 C	1.7836	50/50	1.7836
926162	AC1-094 E	2.9430	50/50	2.9430
927031	AC1-190 C	8.4047	Adder	9.89
927032	AC1-190 E	3.6020	Adder	4.24
927191	AC1-213 C	0.7786	Adder	0.92
927192	AC1-213 E	0.5110	Adder	0.6
930002	AB1-001 E	0.2220	Adder	0.26
930201	AB1-056 C	15.8012	Adder	18.59
930202	AB1-056 E	44.9992	Adder	52.94
930722	AB1-116 E	0.1625	Adder	0.19
930732	AB1-119 E	0.1560	Adder	0.18
931261	AB1-176 C	0.3480	Adder	0.41
931262	AB1-176 E	0.5738	Adder	0.68
932161	AC2-023 C	6.4311	Adder	7.57
932162	AC2-023 E	4.6838	Adder	5.51
932361	AC2-050 C O1	0.6481	Adder	0.76
932362	AC2-050 E O1	1.0574	Adder	1.24
933631	AC2-185 C	4.5185	50/50	4.5185
933632	AC2-185 E	7.3723	50/50	7.3723
933641	AC2-186 C	4.6586	Adder	5.48
933642	AC2-186 E	7.6009	Adder	8.94
933962	AD1-019 E	1.4107	Adder	1.66
936451	AD2-059 C	0.0494	Adder	0.06
936452	AD2-059 E	0.1549	Adder	0.18
936501	AD2-065 C	0.2237	Adder	0.26
936502	AD2-065 E	0.3087	Adder	0.36
936611	AD2-076 C O1	4.2719	Adder	5.03
936612	AD2-076 E O1	6.9699	Adder	8.2
937011	AD2-135 C	0.1344	Adder	0.16
937012	AD2-135 E	0.2284	Adder	0.27
938421	AE1-061 C	0.5449	Adder	0.64
938422	AE1-061 E	0.5449	Adder	0.64
938431	AE1-062 C	2.0975	Adder	2.47
938651	AE1-087 C	3.8402	Adder	4.52
938652	AE1-087 E	0.9601	Adder	1.13
938781	AE1-104 C O1	27.6129	Adder	32.49
938782	AE1-104 E O1	70.6368	Adder	83.1
938814	AE1-107 C	6.6705	Adder	7.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938815	AE1-107 E	4.7554	Adder	5.59
938871	AE1-115 C	1.9784	Adder	2.33
938895	AE1-117 C	11.7655	Adder	13.84
938896	AE1-117 E	31.3747	Adder	36.91
939151	AE1-145	4.8731	Adder	5.73
939301	AE1-161 C	4.0200	Adder	4.73
939302	AE1-161 E	6.0300	Adder	7.09
939501	AE1-179 C O1	7.3825	Adder	8.69
939502	AE1-179 E O1	5.2099	Adder	6.13
939821	AE1-218 C O1	0.1643	Adder	0.19
939822	AE1-218 E O1	0.2464	Adder	0.29
939931	AE1-229 C O1	17.9631	Adder	21.13
939932	AE1-229 E O1	12.1705	Adder	14.32
940001	AE1-240 C O1	6.1130	Adder	7.19
940002	AE1-240 E O1	4.3634	Adder	5.13
940361	AE2-020 C	19.4085	Adder	22.83
940362	AE2-020 E	90.8720	Adder	106.91
940371	AE2-021 C	19.4085	Adder	22.83
940372	AE2-021 E	90.8720	Adder	106.91
940381	AE2-022 C	11.3216	Adder	13.32
940382	AE2-022 E	53.0086	Adder	62.36
941021	AE2-093 C	3.9481	Adder	4.64
941022	AE2-093 E	6.4416	Adder	7.58
941181	AE2-112 C	1.4821	Adder	1.74
941182	AE2-112 E	2.4181	Adder	2.84
942101	AE2-222 C	15.6437	Adder	18.4
942102	AE2-222 E	40.0279	Adder	47.09
942381	AE2-251 C	61.4857	Adder	72.34
942382	AE2-251 E	157.3247	Adder	185.09
942441	AE2-257 C	8.0902	Adder	9.52
942442	AE2-257 E	21.3287	Adder	25.09
943071	AE2-334 C	5.4646	Adder	6.43
943072	AE2-334 E	3.6431	Adder	4.29
943361	AF1-007 C	0.4662	Adder	0.55
943362	AF1-007 E	1.3249	Adder	1.56
943441	AF1-015 C	1.4876	Adder	1.75
943442	AF1-015 E	2.0543	Adder	2.42
943651	AF1-036 C	1.9272	Adder	2.27
943652	AF1-036 E	2.6613	Adder	3.13
943732	AF1-041 E	0.4434	Adder	0.52
944951	AF1-160 C	2.0975	Adder	2.47
945431	AF1-208 C O1	5.5126	Adder	6.49
945432	AF1-208 E O1	3.6751	Adder	4.32
945661	AF1-231 C	1.8516	Adder	2.18
945662	AF1-231 E	2.7773	Adder	3.27
945731	AF1-238 C O1	10.8345	Adder	12.75
945732	AF1-238 E O1	16.2517	Adder	19.12
945741	AF1-239 C	2.5493	Adder	3.0
945742	AF1-239 E	3.8239	Adder	4.5
945791	AF1-244	1.9464	Adder	2.29
945931	AF1-258	0.7774	Adder	0.91
945941	AF1-259	0.1844	Adder	0.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945971	AF1-262	0.1813	Adder	0.21
945991	AF1-264	0.1829	Adder	0.22
957221	AF2-016 C	22.5083	Adder	26.48
957222	AF2-016 E	33.7625	Adder	39.72
957251	AF2-019 C	1.6479	Adder	1.94
957252	AF2-019 E	2.4719	Adder	2.91
957261	AF2-020 C	1.6563	Adder	1.95
957262	AF2-020 E	2.4845	Adder	2.92
957291	AF2-023 C	3.3628	Adder	3.96
957292	AF2-023 E	5.0442	Adder	5.93
957301	AF2-024 C	1.6501	Adder	1.94
957302	AF2-024 E	2.4752	Adder	2.91
957311	AF2-025 C	1.4851	Adder	1.75
957312	AF2-025 E	2.2276	Adder	2.62
957611	AF2-055 C	8.5269	Adder	10.03
957612	AF2-055 E	3.6544	Adder	4.3
957661	AF2-060	2.1929	Adder	2.58
957671	AF2-061 O1	9.7461	Adder	11.47
958811	AF2-172 C (Withdrawn : 01/14/2021)	0.7950	Adder	0.94
958812	AF2-172 E (Withdrawn : 01/14/2021)	1.2971	Adder	1.53
958831	AF2-174 C	0.2149	Adder	0.25
958832	AF2-174 E	0.2967	Adder	0.35
959021	AF2-193 C	29.1980	Adder	34.35
959022	AF2-193 E	78.7609	Adder	92.66
959031	AF2-194 C	29.1980	Adder	34.35
959032	AF2-194 E	78.7609	Adder	92.66
959051	AF2-196 C	2.2064	Adder	2.6
959052	AF2-196 E	5.1483	Adder	6.06
959161	AF2-207 C O1	4.9079	Adder	5.77
959162	AF2-207 E O1	7.3619	Adder	8.66
959571	AF2-248 C	0.8276	Adder	0.97
959572	AF2-248 E	0.9249	Adder	1.09
959581	AF2-249 C	0.1460	Adder	0.17
959582	AF2-249 E	0.5842	Adder	0.69
959591	AF2-250 C	0.2677	Adder	0.31
959592	AF2-250 E	0.2069	Adder	0.24
960221	AF2-313 C	2.9266	Adder	3.44
960222	AF2-313 E	1.6592	Adder	1.95
960341	AF2-325 C	1.0099	Adder	1.19
960342	AF2-325 E	1.3946	Adder	1.64
960671	AF2-358 C O1	14.4825	Adder	17.04
960672	AF2-358 E O1	9.6550	Adder	11.36
960871	AF2-378 C	0.2670	Adder	0.31
960872	AF2-378 E	0.3705	Adder	0.44
960881	AF2-379 C	0.3989	Adder	0.47
960882	AF2-379 E	0.5496	Adder	0.65
960941	AF2-385 C	11.6368	Adder	13.69
960942	AF2-385 E	6.6218	Adder	7.79
960961	AF2-387 C O1	15.6413	Adder	18.4
960962	AF2-387 E O1	7.8442	Adder	9.23
961181	AF2-409 O1	24.1485	Adder	28.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961621	AG1-001 C	1.3097	Adder	2.91
961622	AG1-001 E	2.1369	Adder	4.74
962161	AG1-061 C O2	8.4291	Adder	18.71
962162	AG1-061 E O2	5.6194	Adder	12.47
962261	AG1-072	6.2237	Adder	13.82
962302	AG1-079 E	0.1888	Adder	0.42
962381	AG1-087 C O2	15.4969	Adder	34.4
962382	AG1-087 E O2	41.8026	Adder	92.79
962611	AG1-110	2.2234	Adder	4.94
962621	AG1-111	1.0485	Adder	2.33
962801	AG1-129 C O2	4.0024	Adder	8.88
962802	AG1-129 E O2	2.6683	Adder	5.92
963001	AG1-149	0.3869	Adder	0.86
963011	AG1-150	5.1654	Adder	11.47
964001	AG1-254 C	2.6495	Adder	5.88
964002	AG1-254 E	1.3300	Adder	2.95
964011	AG1-255 C	4.2343	Adder	9.4
964012	AG1-255 E	2.1172	Adder	4.7
964371	AG1-299 C	0.2054	Adder	0.46
964372	AG1-299 E	0.1369	Adder	0.3
964381	AG1-300 C	0.3423	Adder	0.76
964382	AG1-300 E	0.2282	Adder	0.51
964551	AG1-318 C	0.0390	Adder	0.09
964552	AG1-318 E	0.0909	Adder	0.2
964962	AG1-360 E	1.1286	Adder	2.51
965321	AG1-397 C	0.5413	Adder	1.2
965322	AG1-397 E	0.7467	Adder	1.66
965611	AG1-429 C O2	4.5529	Adder	10.11
965612	AG1-429 E O2	3.0344	Adder	6.74
965821	AG1-450	3.1967	Adder	7.1
965921	AG1-461 C O2	2.5248	Adder	5.6
965922	AG1-461 E O2	1.3595	Adder	3.02
965951	AG1-464 C O2	2.5990	Adder	5.77
965952	AG1-464 E O2	3.8985	Adder	8.65
966061	AG1-475 C	0.7562	Adder	1.68
966062	AG1-475 E	0.5042	Adder	1.12
966071	AG1-476	2.7813	Adder	6.17
966281	AG1-497 C O2	11.2164	Adder	24.9
966282	AG1-497 E O2	4.8070	Adder	10.67
966301	AG1-499 C	0.7546	Adder	1.68
966302	AG1-499 E	0.5031	Adder	1.12
966601	AG1-529 C	6.3830	Adder	14.17
966602	AG1-529 E	3.4069	Adder	7.56
CALDERWOOD	CALDERWOOD	0.9030	Confirmed LTF	0.9030
NY	NY	3.2201	Confirmed LTF	3.2201
PRAIRIE	PRAIRIE	4.8070	Confirmed LTF	4.8070
O-066	O-066	49.7145	Confirmed LTF	49.7145
SIGE	SIGE	0.5794	Confirmed LTF	0.5794
CHEOAH	CHEOAH	0.9084	Confirmed LTF	0.9084
COTTONWOOD	COTTONWOOD	3.8556	Confirmed LTF	3.8556
G-007	G-007	7.1421	Confirmed LTF	7.1421
HAMLET	HAMLET	1.0089	Confirmed LTF	1.0089

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	1.0227	Confirmed LTF	1.0227
BLUEG	BLUEG	3.2498	Confirmed LTF	3.2498
TRIMBLE	TRIMBLE	1.0423	Confirmed LTF	1.0423
CATAWBA	CATAWBA	0.6195	Confirmed LTF	0.6195

13.5.7 Index 7

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174376242	200051	ROCKSPGS	PJM	200065	PCHBTM2S	PECO	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	135.18	138.73	DC	224.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200052	ROCKSP 1	17.4598	50/50	17.4598
200053	ROCKSP 2	17.3556	50/50	17.3556
200054	ROCKSP 3	17.6161	50/50	17.6161
200055	ROCKSP 4	17.6161	50/50	17.6161
200062	SALEM G3	14.9005	Adder	17.53
200203	Y1-065-STG	59.5664	50/50	59.5664
200204	Y1-065-CTG1	34.4450	50/50	34.4450
200205	Y1-065-CTG2	34.4450	50/50	34.4450
227801	ONTC&DCT	9.6744	Adder	11.38
227842	MARINGEN	1.9546	Adder	2.3
227928	V4-067E	0.4011	Adder	0.47
228102	BLE#2 ST (Deactivation : 30/04/2019)	39.2085	Adder	46.13
228251	CARLLS#4	1.2663	Adder	1.49
228261	V4-054E	1.6358	Adder	1.92
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.4391	Adder	0.52
228357	V2-046E	3.0674	Adder	3.61
228712	V2-041E	0.6784	Adder	0.8
228721	V2-035E	0.0866	Adder	0.1
231903	GEN4	4.6167	Adder	5.43
231904	DC1 NUG	11.9616	Adder	14.07
231905	DC2 NUG	11.9616	Adder	14.07
231911	HR5	10.4830	50/50	10.4830
231912	HR6	10.4830	50/50	10.4830
231913	HR7	10.4830	50/50	10.4830
231914	HR8	15.9341	50/50	15.9341
232405	W1-003 E	5.3743	Adder	6.32
232407	W1-004 E	5.3743	Adder	6.32
232409	W1-005 E	5.3743	Adder	6.32
232411	W1-006 E	5.3743	Adder	6.32
232412	X1-032 E	1.7335	Adder	2.04
232418	X3-008 E	5.3464	Adder	6.29
232423	X3-066 E	1.2215	Adder	1.44
232425	Y1-079 E	2.6228	Adder	3.09
232427	Y1-080 E	0.9076	Adder	1.07
232429	Y3-058 E	2.6415	Adder	3.11
232433	Z2-076 E	0.8716	Adder	1.03
232435	Z2-077 E	0.8716	Adder	1.03
232616	GEN FOOD	1.2288	50/50	1.2288
232851	DUP-SFR1	4.3309	Adder	5.1
232901	NORTHST	3.7188	50/50	3.7188

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232922	MR3 (Deactivation : 01/06/2021)	44.4268	Adder	52.27
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.7807	Adder	0.92
233916	AB1-141 E	2.6162	Adder	3.08
233919	AB1-142 E	2.6162	Adder	3.08
233920	W3-032A-CTG1	15.6029	50/50	15.6029
233921	W3-032A-STG1	9.3941	50/50	9.3941
233931	AB2-179 C	14.9875	Adder	17.63
902092	W1-130E	1.4369	Adder	1.69
902432	W2-030 E	1.5131	Adder	1.78
917082	CHERRYDALE E	5.3743	Adder	6.32
918835	AA1-102 E	40.3021	Adder	47.41
919831	AA2-069 (Suspended)	196.4362	Adder	231.1
923921	AB2-032 C	5.6476	Adder	6.64
923922	AB2-032 E	2.6577	Adder	3.13
923951	AB2-036 C	14.7936	Adder	17.4
923952	AB2-036 E	24.2039	Adder	28.48
923961	AB2-037 C	33.2899	Adder	39.16
923962	AB2-037 E	54.3836	Adder	63.98
924051	AB2-049 C	0.2892	Adder	0.34
924052	AB2-049 E	0.4718	Adder	0.56
924531	AB2-102 C	62.8849	Adder	73.98
924532	AB2-102 E	1.3974	Adder	1.64
924681	AB2-120 C	16.4701	Adder	19.38
924682	AB2-120 E	26.8723	Adder	31.61
924702	AB2-122 E (Withdrawn : 05/05/2020)	0.3008	Adder	0.35
924781	AB2-130 C O1	13.9900	Adder	16.46
924782	AB2-130 E O1	22.8257	Adder	26.85
924801	AB2-133 C O1	10.1842	Adder	11.98
924802	AB2-133 E O1	12.9166	Adder	15.2
924821	AB2-135 C	12.4846	Adder	14.69
924822	AB2-135 E	14.2383	Adder	16.75
924831	AB2-136 C	10.7065	Adder	12.6
924832	AB2-136 E	11.3541	Adder	13.36
924971	AB2-153 C	3.1560	Adder	3.71
924972	AB2-153 E	5.1493	Adder	6.06
925151	AB2-172 C	8.1921	Adder	9.64
925152	AB2-172 E	13.3660	Adder	15.72
925254	AB2-179 E	4.8907	Adder	5.75
925261	AB2-180 C	6.0625	Adder	7.13
925262	AB2-180 E	2.5982	Adder	3.06
925271	AB2-185 C	5.9224	Adder	6.97
925272	AB2-185 E	2.5382	Adder	2.99
926131	AC1-091 C	3.2618	Adder	3.84
926132	AC1-091 E	5.3493	Adder	6.29
926141	AC1-092 C	3.2618	Adder	3.84
926142	AC1-092 E	5.3493	Adder	6.29
926151	AC1-093 C	3.0878	Adder	3.63
926152	AC1-093 E	5.0884	Adder	5.99
926161	AC1-094 C	2.6094	Adder	3.07
926162	AC1-094 E	4.3055	Adder	5.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	15.0940	Adder	17.76
927032	AC1-190 E	6.4688	Adder	7.61
927191	AC1-213 C	1.3862	Adder	1.63
927192	AC1-213 E	0.9097	Adder	1.07
930201	AB1-056 C	27.9382	Adder	32.87
930202	AB1-056 E	79.5631	Adder	93.6
930722	AB1-116 E	0.1960	Adder	0.23
930732	AB1-119 E	0.1853	Adder	0.22
931261	AB1-176 C	0.6317	Adder	0.74
931262	AB1-176 E	1.0416	Adder	1.23
932161	AC2-023 C	11.4727	Adder	13.5
932162	AC2-023 E	8.3556	Adder	9.83
933631	AC2-185 C	6.6105	Adder	7.78
933632	AC2-185 E	10.7856	Adder	12.69
933641	AC2-186 C	8.2042	Adder	9.65
933642	AC2-186 E	13.3858	Adder	15.75
933962	AD1-019 E	1.9048	Adder	2.24
936451	AD2-059 C	0.0923	Adder	0.11
936452	AD2-059 E	0.2895	Adder	0.34
936501	AD2-065 C	0.2692	Adder	0.32
936502	AD2-065 E	0.3714	Adder	0.44
936611	AD2-076 C O1	7.7681	Adder	9.14
936612	AD2-076 E O1	12.6742	Adder	14.91
937011	AD2-135 C	0.1560	Adder	0.18
937012	AD2-135 E	0.2652	Adder	0.31
938421	AE1-061 C	0.6932	Adder	0.82
938422	AE1-061 E	0.6932	Adder	0.82
938431	AE1-062 C	2.5071	Adder	2.95
938651	AE1-087 C	6.8986	Adder	8.12
938652	AE1-087 E	1.7247	Adder	2.03
938781	AE1-104 C O1	36.3409	Adder	42.75
938782	AE1-104 E O1	92.9638	Adder	109.37
938814	AE1-107 C	12.2475	Adder	14.41
938815	AE1-107 E	8.7313	Adder	10.27
938871	AE1-115 C	2.5554	Adder	3.01
938895	AE1-117 C	20.8186	Adder	24.49
938896	AE1-117 E	55.5163	Adder	65.31
939151	AE1-145	8.6685	Adder	10.2
939301	AE1-161 C	5.0436	Adder	5.93
939302	AE1-161 E	7.5653	Adder	8.9
939501	AE1-179 C O1	9.3665	Adder	11.02
939502	AE1-179 E O1	6.6101	Adder	7.78
939821	AE1-218 C O1	0.2000	Adder	0.24
939822	AE1-218 E O1	0.3000	Adder	0.35
939931	AE1-229 C O1	22.8803	Adder	26.92
939932	AE1-229 E O1	15.5021	Adder	18.24
940001	AE1-240 C O1	7.7623	Adder	9.13
940002	AE1-240 E O1	5.5407	Adder	6.52
940361	AE2-020 C	26.4474	Adder	31.11
940362	AE2-020 E	123.8285	Adder	145.68
940371	AE2-021 C	26.4474	Adder	31.11
940372	AE2-021 E	123.8285	Adder	145.68

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940381	AE2-022 C	15.4276	Adder	18.15
940382	AE2-022 E	72.2333	Adder	84.98
941021	AE2-093 C	7.1719	Adder	8.44
941022	AE2-093 E	11.7016	Adder	13.77
941181	AE2-112 C	2.6950	Adder	3.17
941182	AE2-112 E	4.3972	Adder	5.17
942101	AE2-222 C	21.1253	Adder	24.85
942102	AE2-222 E	54.0538	Adder	63.59
942381	AE2-251 C	83.7848	Adder	98.57
942382	AE2-251 E	214.3817	Adder	252.21
942441	AE2-257 C	14.3131	Adder	16.84
942442	AE2-257 E	37.7345	Adder	44.39
943071	AE2-334 C	6.6651	Adder	7.84
943072	AE2-334 E	4.4434	Adder	5.23
943361	AF1-007 C	0.8243	Adder	0.97
943362	AF1-007 E	2.3426	Adder	2.76
943441	AF1-015 C	2.7023	Adder	3.18
943442	AF1-015 E	3.7318	Adder	4.39
943651	AF1-036 C	3.5044	Adder	4.12
943652	AF1-036 E	4.8394	Adder	5.69
943732	AF1-041 E	0.6000	Adder	0.71
944951	AF1-160 C	2.5071	Adder	2.95
945431	AF1-208 C O1	7.0493	Adder	8.29
945432	AF1-208 E O1	4.6995	Adder	5.53
945661	AF1-231 C	3.2940	Adder	3.88
945662	AF1-231 E	4.9409	Adder	5.81
945731	AF1-238 C O1	13.7051	Adder	16.12
945732	AF1-238 E O1	20.5577	Adder	24.19
945741	AF1-239 C	3.2247	Adder	3.79
945742	AF1-239 E	4.8371	Adder	5.69
945791	AF1-244	3.4668	Adder	4.08
945931	AF1-258	1.3857	Adder	1.63
945941	AF1-259	0.3347	Adder	0.39
945971	AF1-262	0.2292	Adder	0.27
957221	AF2-016 C	30.2104	Adder	35.54
957222	AF2-016 E	45.3155	Adder	53.31
957251	AF2-019 C	2.1388	Adder	2.52
957252	AF2-019 E	3.2082	Adder	3.77
957261	AF2-020 C	2.1102	Adder	2.48
957262	AF2-020 E	3.1653	Adder	3.72
957291	AF2-023 C	4.3441	Adder	5.11
957292	AF2-023 E	6.5162	Adder	7.67
957311	AF2-025 C	2.0052	Adder	2.36
957312	AF2-025 E	3.0078	Adder	3.54
957611	AF2-055 C	15.1695	Adder	17.85
957612	AF2-055 E	6.5012	Adder	7.65
957661	AF2-060	3.9008	Adder	4.59
957671	AF2-061 O1	17.3369	Adder	20.4
958811	AF2-172 C (Withdrawn : 01/14/2021)	1.0104	Adder	1.19
958812	AF2-172 E (Withdrawn : 01/14/2021)	1.6486	Adder	1.94
959021	AF2-193 C	51.6249	Adder	60.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959022	AF2-193 E	139.2572	Adder	163.83
959031	AF2-194 C	51.6249	Adder	60.74
959032	AF2-194 E	139.2572	Adder	163.83
959051	AF2-196 C	3.9036	Adder	4.59
959052	AF2-196 E	9.1083	Adder	10.72
959161	AF2-207 C O1	8.7332	Adder	10.27
959162	AF2-207 E O1	13.0998	Adder	15.41
959571	AF2-248 C	1.4729	Adder	1.73
959572	AF2-248 E	1.6461	Adder	1.94
959581	AF2-249 C	0.2599	Adder	0.31
959582	AF2-249 E	1.0397	Adder	1.22
959591	AF2-250 C	0.4765	Adder	0.56
959592	AF2-250 E	0.3682	Adder	0.43
960221	AF2-313 C	5.3127	Adder	6.25
960222	AF2-313 E	3.0119	Adder	3.54
960341	AF2-325 C	1.8124	Adder	2.13
960342	AF2-325 E	2.5028	Adder	2.94
960671	AF2-358 C O1	25.9361	Adder	30.51
960672	AF2-358 E O1	17.2907	Adder	20.34
960871	AF2-378 C	0.4791	Adder	0.56
960872	AF2-378 E	0.6647	Adder	0.78
960881	AF2-379 C	0.7106	Adder	0.84
960882	AF2-379 E	0.9792	Adder	1.15
960941	AF2-385 C	20.7067	Adder	24.36
960942	AF2-385 E	11.7829	Adder	13.86
960961	AF2-387 C O1	28.4386	Adder	33.46
960962	AF2-387 E O1	14.2620	Adder	16.78
961181	AF2-409 O1	43.3033	Adder	50.95
961621	AG1-001 C	1.6636	Adder	3.69
961622	AG1-001 E	2.7143	Adder	6.03
962161	AG1-061 C O2	15.0570	Adder	33.42
962162	AG1-061 E O2	10.0380	Adder	22.28
962261	AG1-072	11.3157	Adder	25.12
962302	AG1-079 E	0.3362	Adder	0.75
962381	AG1-087 C O2	27.3762	Adder	60.77
962382	AG1-087 E O2	73.8468	Adder	163.92
962611	AG1-110	2.6575	Adder	5.9
962621	AG1-111	1.3544	Adder	3.01
962801	AG1-129 C O2	5.0840	Adder	11.29
962802	AG1-129 E O2	3.3893	Adder	7.52
963001	AG1-149	0.6890	Adder	1.53
963011	AG1-150	9.1886	Adder	20.4
964001	AG1-254 C	3.4082	Adder	7.57
964002	AG1-254 E	1.7109	Adder	3.8
964011	AG1-255 C	5.4525	Adder	12.1
964012	AG1-255 E	2.7262	Adder	6.05
964371	AG1-299 C	0.2619	Adder	0.58
964372	AG1-299 E	0.1746	Adder	0.39
964381	AG1-300 C	0.4365	Adder	0.97
964382	AG1-300 E	0.2910	Adder	0.65
964551	AG1-318 C	0.0690	Adder	0.15
964552	AG1-318 E	0.1609	Adder	0.36

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964962	AG1-360 E	2.0097	Adder	4.46
965321	AG1-397 C	0.9623	Adder	2.14
965322	AG1-397 E	1.3274	Adder	2.95
965611	AG1-429 C O2	8.0996	Adder	17.98
965612	AG1-429 E O2	5.3982	Adder	11.98
965821	AG1-450	5.7264	Adder	12.71
965921	AG1-461 C O2	4.4779	Adder	9.94
965922	AG1-461 E O2	2.4112	Adder	5.35
965951	AG1-464 C O2	4.5771	Adder	10.16
965952	AG1-464 E O2	6.8656	Adder	15.24
966281	AG1-497 C O2	19.3910	Adder	43.04
966282	AG1-497 E O2	8.3104	Adder	18.45
966301	AG1-499 C	0.9819	Adder	2.18
966302	AG1-499 E	0.6546	Adder	1.45
966601	AG1-529 C	11.2366	Adder	24.94
966602	AG1-529 E	5.9974	Adder	13.31
G-007A	G-007A	23.3804	Confirmed LTF	23.3804
VFT	VFT	51.3356	Confirmed LTF	51.3356
CALDERWOOD	CALDERWOOD	2.6709	Confirmed LTF	2.6709
PRAIRIE	PRAIRIE	13.5685	Confirmed LTF	13.5685
CHEOAH	CHEOAH	2.6917	Confirmed LTF	2.6917
CBM-N	CBM-N	7.6224	Confirmed LTF	7.6224
COTTONWOOD	COTTONWOOD	11.1762	Confirmed LTF	11.1762
HAMLET	HAMLET	3.2126	Confirmed LTF	3.2126
GIBSON	GIBSON	2.8507	Confirmed LTF	2.8507
BLUEG	BLUEG	9.0654	Confirmed LTF	9.0654
TRIMBLE	TRIMBLE	2.9049	Confirmed LTF	2.9049
CATAWBA	CATAWBA	1.9253	Confirmed LTF	1.9253

13.5.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174170075	200064	PCHBTM15	PECO	200004	CNASTONE	BGE	1	TS_P4_#T7_FUR RUN 500_CB 3	breaker	3620.0	121.36	123.73	DC	181.78

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	113.0880	50/50	113.0880
200035	PCHBTM 3	114.1815	50/50	114.1815
200052	ROCKSP 1	11.3310	50/50	11.3310
200053	ROCKSP 2	11.2633	50/50	11.2633
200054	ROCKSP 3	11.4325	50/50	11.4325
200055	ROCKSP 4	11.4325	50/50	11.4325
200062	SALEM G3	12.4561	Adder	14.65
200192	DELTA CT1	11.0042	50/50	11.0042
200193	DELTA CT2	11.0042	50/50	11.0042
200194	DELTA CT3	11.0042	50/50	11.0042
200195	DELTA ST	16.9905	50/50	16.9905
200200	DELTA2 CT1	19.7196	50/50	19.7196
200201	DELTA2 CT2	19.7196	50/50	19.7196
200202	DELTA2 ST	33.6289	50/50	33.6289
200203	Y1-065-STG	38.6572	50/50	38.6572
200204	Y1-065-CTG1	22.3540	50/50	22.3540
200205	Y1-065-CTG2	22.3540	50/50	22.3540
213792	MDYRN1-2	21.3112	50/50	21.3112
213793	MDYRN3-4	21.3910	50/50	21.3910
213794	MDYRN5-6	21.3276	50/50	21.3276
213795	MDYRN7-8	21.4075	50/50	21.4075
231903	GEN4	3.8231	Adder	4.5
231904	DC1 NUG	9.9054	Adder	11.65
231905	DC2 NUG	9.9054	Adder	11.65
231911	HR5	8.3075	50/50	8.3075
231912	HR6	8.3075	50/50	8.3075
231913	HR7	8.3075	50/50	8.3075
231914	HR8	12.6275	50/50	12.6275
232405	W1-003 E	4.3546	Adder	5.12
232407	W1-004 E	4.3546	Adder	5.12
232409	W1-005 E	4.3546	Adder	5.12
232411	W1-006 E	4.3546	Adder	5.12
232412	X1-032 E	1.4048	Adder	1.65
232418	X3-008 E	4.3480	Adder	5.12
232423	X3-066 E	1.0097	Adder	1.19
232425	Y1-079 E	2.1561	Adder	2.54
232427	Y1-080 E	0.7370	Adder	0.87
232429	Y3-058 E	2.1417	Adder	2.52
232433	Z2-076 E	0.7057	Adder	0.83
232435	Z2-077 E	0.7057	Adder	0.83
232851	DUP-SFR1	3.5084	Adder	4.13

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232922	MR3 (Deactivation : 01/06/2021)	35.7906	Adder	42.11
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.6320	Adder	0.74
233916	AB1-141 E	2.1710	Adder	2.55
233919	AB1-142 E	2.1710	Adder	2.55
233931	AB2-179 C	12.7785	Adder	15.03
917082	CHERRYDALE E	4.3546	Adder	5.12
918835	AA1-102 E	32.6619	Adder	38.43
919831	AA2-069 (Suspended)	158.2507	Adder	186.18
923921	AB2-032 C	4.6865	Adder	5.51
923922	AB2-032 E	2.2054	Adder	2.59
923951	AB2-036 C	12.1499	Adder	14.29
923952	AB2-036 E	19.8785	Adder	23.39
923961	AB2-037 C	31.8090	50/50	31.8090
923962	AB2-037 E	51.9644	50/50	51.9644
924681	AB2-120 C	13.3447	Adder	15.7
924682	AB2-120 E	21.7730	Adder	25.62
924781	AB2-130 C O1	11.3364	Adder	13.34
924782	AB2-130 E O1	18.4963	Adder	21.76
924801	AB2-133 C O1	8.4616	Adder	9.95
924802	AB2-133 E O1	10.7318	Adder	12.63
924821	AB2-135 C	10.3200	Adder	12.14
924822	AB2-135 E	11.7696	Adder	13.85
924831	AB2-136 C	8.6999	Adder	10.24
924832	AB2-136 E	9.2261	Adder	10.85
924971	AB2-153 C	2.6189	Adder	3.08
924972	AB2-153 E	4.2730	Adder	5.03
925151	AB2-172 C	6.6622	Adder	7.84
925152	AB2-172 E	10.8699	Adder	12.79
925254	AB2-179 E	4.1698	Adder	4.91
925261	AB2-180 C	4.9154	Adder	5.78
925262	AB2-180 E	2.1066	Adder	2.48
925271	AB2-185 C	4.8685	Adder	5.73
925272	AB2-185 E	2.0865	Adder	2.45
926131	AC1-091 C	2.6283	Adder	3.09
926132	AC1-091 E	4.3105	Adder	5.07
926141	AC1-092 C	2.6283	Adder	3.09
926142	AC1-092 E	4.3105	Adder	5.07
926151	AC1-093 C	2.4882	Adder	2.93
926152	AC1-093 E	4.1002	Adder	4.82
926161	AC1-094 C	2.1027	Adder	2.47
926162	AC1-094 E	3.4694	Adder	4.08
927031	AC1-190 C	12.2734	Adder	14.44
927032	AC1-190 E	5.2600	Adder	6.19
927191	AC1-213 C	1.1236	Adder	1.32
927192	AC1-213 E	0.7373	Adder	0.87
930201	AB1-056 C	22.6109	Adder	26.6
930202	AB1-056 E	64.3919	Adder	75.76
931261	AB1-176 C	0.5221	Adder	0.61
931262	AB1-176 E	0.8610	Adder	1.01
932161	AC2-023 C	9.3040	Adder	10.95
932162	AC2-023 E	6.7761	Adder	7.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933631	AC2-185 C	5.3268	Adder	6.27
933632	AC2-185 E	8.6911	Adder	10.22
933641	AC2-186 C	6.6522	Adder	7.83
933642	AC2-186 E	10.8536	Adder	12.77
934661	AD1-097 1	2.9320	Adder	3.45
934671	AD1-097 2	2.9320	Adder	3.45
934681	AD1-097 3	2.9314	Adder	3.45
934691	AD1-097 4	1.7352	Adder	2.04
936451	AD2-059 C	0.0809	Adder	0.1
936452	AD2-059 E	0.2537	Adder	0.3
936611	AD2-076 C O1	6.4310	Adder	7.57
936612	AD2-076 E O1	10.4927	Adder	12.34
938651	AE1-087 C	5.6103	Adder	6.6
938652	AE1-087 E	1.4026	Adder	1.65
938814	AE1-107 C	10.4465	Adder	12.29
938815	AE1-107 E	7.4473	Adder	8.76
938895	AE1-117 C	16.8520	Adder	19.83
938896	AE1-117 E	44.9388	Adder	52.87
939151	AE1-145	7.0236	Adder	8.26
941021	AE2-093 C	5.8548	Adder	6.89
941022	AE2-093 E	9.5525	Adder	11.24
941181	AE2-112 C	2.2312	Adder	2.62
941182	AE2-112 E	3.6403	Adder	4.28
942441	AE2-257 C	11.5858	Adder	13.63
942442	AE2-257 E	30.5443	Adder	35.93
943361	AF1-007 C	0.6671	Adder	0.78
943362	AF1-007 E	1.8959	Adder	2.23
943441	AF1-015 C	2.2060	Adder	2.6
943442	AF1-015 E	3.0464	Adder	3.58
943651	AF1-036 C	2.9012	Adder	3.41
943652	AF1-036 E	4.0064	Adder	4.71
944721	AF1-137 C O1	1.7860	Adder	2.1
944722	AF1-137 E O1	1.1806	Adder	1.39
945091	AF1-174 C O1	3.6325	Adder	4.27
945092	AF1-174 E O1	2.4217	Adder	2.85
945661	AF1-231 C	2.6689	Adder	3.14
945662	AF1-231 E	4.0034	Adder	4.71
945791	AF1-244	2.8096	Adder	3.31
945931	AF1-258	1.1235	Adder	1.32
945941	AF1-259	0.2766	Adder	0.33
957611	AF2-055 C	12.2912	Adder	14.46
957612	AF2-055 E	5.2677	Adder	6.2
957661	AF2-060	3.1606	Adder	3.72
957671	AF2-061 O1	14.0471	Adder	16.53
959021	AF2-193 C	41.7810	Adder	49.15
959022	AF2-193 E	112.7034	Adder	132.59
959031	AF2-194 C	41.7810	Adder	49.15
959032	AF2-194 E	112.7034	Adder	132.59
959051	AF2-196 C	3.1598	Adder	3.72
959052	AF2-196 E	7.3728	Adder	8.67
959161	AF2-207 C O1	7.0782	Adder	8.33
959162	AF2-207 E O1	10.6173	Adder	12.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959571	AF2-248 C	1.1938	Adder	1.4
959572	AF2-248 E	1.3342	Adder	1.57
959581	AF2-249 C	0.2107	Adder	0.25
959582	AF2-249 E	0.8427	Adder	0.99
959591	AF2-250 C	0.3862	Adder	0.45
959592	AF2-250 E	0.2984	Adder	0.35
960221	AF2-313 C	4.3914	Adder	5.17
960222	AF2-313 E	2.4896	Adder	2.93
960341	AF2-325 C	1.4731	Adder	1.73
960342	AF2-325 E	2.0343	Adder	2.39
960671	AF2-358 C O1	21.0584	Adder	24.77
960672	AF2-358 E O1	14.0389	Adder	16.52
960871	AF2-378 C	0.3894	Adder	0.46
960872	AF2-378 E	0.5402	Adder	0.64
960881	AF2-379 C	0.5759	Adder	0.68
960882	AF2-379 E	0.7937	Adder	0.93
960941	AF2-385 C	16.7826	Adder	19.74
960942	AF2-385 E	9.5499	Adder	11.24
960961	AF2-387 C O1	23.2701	Adder	27.38
960962	AF2-387 E O1	11.6700	Adder	13.73
961181	AF2-409 O1	35.1339	Adder	41.33
962161	AG1-061 C O2	12.2087	Adder	27.1
962162	AG1-061 E O2	8.1391	Adder	18.07
962261	AG1-072	9.2591	Adder	20.55
962302	AG1-079 E	0.2758	Adder	0.61
962381	AG1-087 C O2	22.1477	Adder	49.16
962382	AG1-087 E O2	59.7429	Adder	132.61
963001	AG1-149	0.5584	Adder	1.24
963011	AG1-150	7.4450	Adder	16.53
964551	AG1-318 C	0.0558	Adder	0.12
964552	AG1-318 E	0.1303	Adder	0.29
964962	AG1-360 E	1.6287	Adder	3.62
965321	AG1-397 C	0.7797	Adder	1.73
965322	AG1-397 E	1.0756	Adder	2.39
965611	AG1-429 C O2	6.5627	Adder	14.57
965612	AG1-429 E O2	4.3739	Adder	9.71
965821	AG1-450	4.6501	Adder	10.32
965921	AG1-461 C O2	3.6276	Adder	8.05
965922	AG1-461 E O2	1.9533	Adder	4.34
965951	AG1-464 C O2	3.7112	Adder	8.24
965952	AG1-464 E O2	5.5668	Adder	12.36
966281	AG1-497 C O2	15.6216	Adder	34.68
966282	AG1-497 E O2	6.6950	Adder	14.86
966601	AG1-529 C	9.0920	Adder	20.18
966602	AG1-529 E	4.8528	Adder	10.77
G-007A	G-007A	66.4227	Confirmed LTF	66.4227
VFT	VFT	171.2024	Confirmed LTF	171.2024
CALDERWOOD	CALDERWOOD	5.6742	Confirmed LTF	5.6742
PRAIRIE	PRAIRIE	27.9041	Confirmed LTF	27.9041
AC1-131	AC1-131	9.4508	LTF	9.4508
CHEOAH	CHEOAH	5.7252	Confirmed LTF	5.7252
CBM-N	CBM-N	29.8368	Confirmed LTF	29.8368

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
COTTONWOOD	COTTONWOOD	23.4192	Confirmed LTF	23.4192
HAMLET	HAMLET	7.1564	Confirmed LTF	7.1564
GIBSON	GIBSON	5.8062	Confirmed LTF	5.8062
BLUEG	BLUEG	18.4693	Confirmed LTF	18.4693
TRIMBLE	TRIMBLE	5.9162	Confirmed LTF	5.9162
CATAWBA	CATAWBA	4.2245	Confirmed LTF	4.2245
AC1-056	AC1-056	10.7080	LTF	10.7080

13.5.9 Index 9

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
174170033	200066	PCHBTM1N	PECO	270072	FUR RUN_500	PJM	1	PJM_500_BG_P4_5_CNSTN_B	breaker	3609.0	129.3	131.47	DC	165.08

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	112.7262	50/50	112.7262
200035	PCHBTM 3	114.4888	50/50	114.4888
200052	ROCKSP 1	11.1606	50/50	11.1606
200053	ROCKSP 2	11.0940	50/50	11.0940
200054	ROCKSP 3	11.2605	50/50	11.2605
200055	ROCKSP 4	11.2605	50/50	11.2605
200062	SALEM G3	10.7957	Adder	12.7
200192	DELTA CT1	10.9376	50/50	10.9376
200193	DELTA CT2	10.9376	50/50	10.9376
200194	DELTA CT3	10.9376	50/50	10.9376
200195	DELTA ST	16.8876	50/50	16.8876
200200	DELTA2 CT1	19.6001	50/50	19.6001
200201	DELTA2 CT2	19.6001	50/50	19.6001
200202	DELTA2 ST	33.4252	50/50	33.4252
200203	Y1-065-STG	38.0759	50/50	38.0759
200204	Y1-065-CTG1	22.0178	50/50	22.0178
200205	Y1-065-CTG2	22.0178	50/50	22.0178
213792	MDYRN1-2	20.9400	50/50	20.9400
213793	MDYRN3-4	21.0185	50/50	21.0185
213794	MDYRN5-6	20.9603	50/50	20.9603
213795	MDYRN7-8	21.0388	50/50	21.0388
227881	GRENWCHG	0.4001	Adder	0.47
228102	BLE#2 ST (Deactivation : 30/04/2019)	35.7095	Adder	42.01
228251	CARLLS#4	1.1557	Adder	1.36
228261	V4-054E	1.4928	Adder	1.76
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.4085	Adder	0.48
228357	V2-046E	2.8953	Adder	3.41
228712	V2-041E	0.6009	Adder	0.71
228721	V2-035E	0.0811	Adder	0.1
231903	GEN4	3.4742	Adder	4.09
231904	DC1 NUG	9.0013	Adder	10.59
231905	DC2 NUG	9.0013	Adder	10.59
231911	HR5	7.5911	50/50	7.5911
231912	HR6	7.5911	50/50	7.5911
231913	HR7	7.5911	50/50	7.5911
231914	HR8	11.5384	50/50	11.5384
232405	W1-003 E	3.9571	Adder	4.66
232407	W1-004 E	3.9571	Adder	4.66
232409	W1-005 E	3.9571	Adder	4.66
232411	W1-006 E	3.9571	Adder	4.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232412	X1-032 E	1.2767	Adder	1.5
232418	X3-008 E	3.9536	Adder	4.65
232423	X3-066 E	0.9174	Adder	1.08
232425	Y1-079 E	1.9605	Adder	2.31
232427	Y1-080 E	0.6701	Adder	0.79
232429	Y3-058 E	1.9465	Adder	2.29
232433	Z2-076 E	0.6410	Adder	0.75
232435	Z2-077 E	0.6410	Adder	0.75
232851	DUP-SFR1	3.1864	Adder	3.75
232922	MR3 (Deactivation : 01/06/2021)	32.4414	Adder	38.17
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.5740	Adder	0.68
233916	AB1-141 E	1.9721	Adder	2.32
233919	AB1-142 E	1.9721	Adder	2.32
233931	AB2-179 C	11.5818	Adder	13.63
902092	W1-130E	1.3488	Adder	1.59
902432	W2-030 E	1.4063	Adder	1.65
917082	CHERRYDALE E	3.9571	Adder	4.66
918835	AA1-102 E	29.6833	Adder	34.92
919831	AA2-069 (Suspended)	143.4419	Adder	168.76
923921	AB2-032 C	4.2573	Adder	5.01
923922	AB2-032 E	2.0034	Adder	2.36
923951	AB2-036 C	11.0502	Adder	13.0
923952	AB2-036 E	18.0793	Adder	21.27
923961	AB2-037 C	28.9826	50/50	28.9826
923962	AB2-037 E	47.3471	50/50	47.3471
924051	AB2-049 C	0.2700	Adder	0.32
924052	AB2-049 E	0.4405	Adder	0.52
924531	AB2-102 C	54.8696	Adder	64.55
924532	AB2-102 E	1.2193	Adder	1.43
924681	AB2-120 C	12.1264	Adder	14.27
924682	AB2-120 E	19.7852	Adder	23.28
924781	AB2-130 C O1	10.2992	Adder	12.12
924782	AB2-130 E O1	16.8039	Adder	19.77
924801	AB2-133 C O1	7.6836	Adder	9.04
924802	AB2-133 E O1	9.7450	Adder	11.46
924821	AB2-135 C	9.3690	Adder	11.02
924822	AB2-135 E	10.6850	Adder	12.57
924831	AB2-136 C	7.9103	Adder	9.31
924832	AB2-136 E	8.3887	Adder	9.87
924971	AB2-153 C	2.3791	Adder	2.8
924972	AB2-153 E	3.8817	Adder	4.57
925151	AB2-172 C	6.0579	Adder	7.13
925152	AB2-172 E	9.8839	Adder	11.63
925254	AB2-179 E	3.7793	Adder	4.45
925261	AB2-180 C	4.4674	Adder	5.26
925262	AB2-180 E	1.9146	Adder	2.25
925271	AB2-185 C	4.4269	Adder	5.21
925272	AB2-185 E	1.8973	Adder	2.23
926131	AC1-091 C	2.3812	Adder	2.8
926132	AC1-091 E	3.9052	Adder	4.59
926141	AC1-092 C	2.3812	Adder	2.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926142	AC1-092 E	3.9052	Adder	4.59
926151	AC1-093 C	2.2542	Adder	2.65
926152	AC1-093 E	3.7147	Adder	4.37
926161	AC1-094 C	1.9050	Adder	2.24
926162	AC1-094 E	3.1432	Adder	3.7
927031	AC1-190 C	11.1601	Adder	13.13
927032	AC1-190 E	4.7829	Adder	5.63
927191	AC1-213 C	1.0211	Adder	1.2
927192	AC1-213 E	0.6701	Adder	0.79
930201	AB1-056 C	20.5357	Adder	24.16
930202	AB1-056 E	58.4821	Adder	68.8
930722	AB1-116 E	0.1847	Adder	0.22
930732	AB1-119 E	0.1727	Adder	0.2
931261	AB1-176 C	0.4744	Adder	0.56
931262	AB1-176 E	0.7823	Adder	0.92
932161	AC2-023 C	8.4563	Adder	9.95
932162	AC2-023 E	6.1588	Adder	7.25
933631	AC2-185 C	4.8259	Adder	5.68
933632	AC2-185 E	7.8738	Adder	9.26
933641	AC2-186 C	6.0378	Adder	7.1
933642	AC2-186 E	9.8512	Adder	11.59
934661	AD1-097 1	2.5091	Adder	2.95
934671	AD1-097 2	2.5091	Adder	2.95
934681	AD1-097 3	2.5082	Adder	2.95
934691	AD1-097 4	1.4847	Adder	1.75
936451	AD2-059 C	0.0731	Adder	0.09
936452	AD2-059 E	0.2292	Adder	0.27
936501	AD2-065 C	0.2539	Adder	0.3
936502	AD2-065 E	0.3504	Adder	0.41
936611	AD2-076 C O1	5.8435	Adder	6.87
936612	AD2-076 E O1	9.5341	Adder	11.22
937011	AD2-135 C	0.1428	Adder	0.17
937012	AD2-135 E	0.2427	Adder	0.29
938421	AE1-061 C	0.6507	Adder	0.77
938422	AE1-061 E	0.6507	Adder	0.77
938431	AE1-062 C	2.3543	Adder	2.77
938651	AE1-087 C	5.1014	Adder	6.0
938652	AE1-087 E	1.2753	Adder	1.5
938781	AE1-104 C O1	33.0978	Adder	38.94
938782	AE1-104 E O1	84.6677	Adder	99.61
938814	AE1-107 C	9.4686	Adder	11.14
938815	AE1-107 E	6.7502	Adder	7.94
938871	AE1-115 C	2.4012	Adder	2.82
938895	AE1-117 C	15.3065	Adder	18.01
938896	AE1-117 E	40.8174	Adder	48.02
939151	AE1-145	6.3823	Adder	7.51
939301	AE1-161 C	4.7450	Adder	5.58
939302	AE1-161 E	7.1176	Adder	8.37
939501	AE1-179 C O1	8.4436	Adder	9.93
939502	AE1-179 E O1	5.9588	Adder	7.01
939821	AE1-218 C O1	0.1895	Adder	0.22
939822	AE1-218 E O1	0.2842	Adder	0.33

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939931	AE1-229 C O1	21.3242	Adder	25.09
939932	AE1-229 E O1	14.4478	Adder	17.0
940001	AE1-240 C O1	6.9971	Adder	8.23
940002	AE1-240 E O1	4.9945	Adder	5.88
941021	AE2-093 C	5.3277	Adder	6.27
941022	AE2-093 E	8.6925	Adder	10.23
941181	AE2-112 C	2.0273	Adder	2.39
941182	AE2-112 E	3.3078	Adder	3.89
942441	AE2-257 C	10.5230	Adder	12.38
942442	AE2-257 E	27.7423	Adder	32.64
943071	AE2-334 C	6.2702	Adder	7.38
943072	AE2-334 E	4.1801	Adder	4.92
943361	AF1-007 C	0.6059	Adder	0.71
943362	AF1-007 E	1.7219	Adder	2.03
943441	AF1-015 C	2.0074	Adder	2.36
943442	AF1-015 E	2.7722	Adder	3.26
943651	AF1-036 C	2.6362	Adder	3.1
943652	AF1-036 E	3.6404	Adder	4.28
944721	AF1-137 C O1	1.5789	Adder	1.86
944722	AF1-137 E O1	1.0437	Adder	1.23
944951	AF1-160 C	2.3543	Adder	2.77
945091	AF1-174 C O1	3.2114	Adder	3.78
945092	AF1-174 E O1	2.1409	Adder	2.52
945431	AF1-208 C O1	6.4937	Adder	7.64
945432	AF1-208 E O1	4.3291	Adder	5.09
945661	AF1-231 C	2.4253	Adder	2.85
945662	AF1-231 E	3.6380	Adder	4.28
945731	AF1-238 C O1	12.3075	Adder	14.48
945732	AF1-238 E O1	18.4612	Adder	21.72
945741	AF1-239 C	2.8959	Adder	3.41
945742	AF1-239 E	4.3438	Adder	5.11
945791	AF1-244	2.5534	Adder	3.0
945931	AF1-258	1.0211	Adder	1.2
945941	AF1-259	0.2514	Adder	0.3
945971	AF1-262	0.2146	Adder	0.25
957221	AF2-016 C	28.1204	Adder	33.08
957222	AF2-016 E	42.1806	Adder	49.62
957251	AF2-019 C	1.9181	Adder	2.26
957252	AF2-019 E	2.8771	Adder	3.38
957261	AF2-020 C	1.9262	Adder	2.27
957262	AF2-020 E	2.8893	Adder	3.4
957291	AF2-023 C	4.0820	Adder	4.8
957292	AF2-023 E	6.1230	Adder	7.2
957301	AF2-024 C	2.2549	Adder	2.65
957302	AF2-024 E	3.3824	Adder	3.98
957441	AF2-038 C	1.9357	Adder	2.28
957442	AF2-038 E	2.9035	Adder	3.42
957611	AF2-055 C	11.1693	Adder	13.14
957612	AF2-055 E	4.7869	Adder	5.63
957661	AF2-060	2.8720	Adder	3.38
957671	AF2-061 O1	12.7646	Adder	15.02
958811	AF2-172 C (Withdrawn : 01/14/2021)	0.9159	Adder	1.08

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958812	AF2-172 E (Withdrawn : 01/14/2021)	1.4944	Adder	1.76
959021	AF2-193 C	37.9464	Adder	44.64
959022	AF2-193 E	102.3597	Adder	120.42
959031	AF2-194 C	37.9464	Adder	44.64
959032	AF2-194 E	102.3597	Adder	120.42
959051	AF2-196 C	2.8699	Adder	3.38
959052	AF2-196 E	6.6964	Adder	7.88
959161	AF2-207 C O1	6.4320	Adder	7.57
959162	AF2-207 E O1	9.6480	Adder	11.35
959571	AF2-248 C	1.0848	Adder	1.28
959572	AF2-248 E	1.2124	Adder	1.43
959581	AF2-249 C	0.1914	Adder	0.23
959582	AF2-249 E	0.7657	Adder	0.9
959591	AF2-250 C	0.3510	Adder	0.41
959592	AF2-250 E	0.2712	Adder	0.32
960221	AF2-313 C	3.9903	Adder	4.69
960222	AF2-313 E	2.2622	Adder	2.66
960341	AF2-325 C	1.3395	Adder	1.58
960342	AF2-325 E	1.8497	Adder	2.18
960671	AF2-358 C O1	19.1454	Adder	22.52
960672	AF2-358 E O1	12.7636	Adder	15.02
960871	AF2-378 C	0.3540	Adder	0.42
960872	AF2-378 E	0.4912	Adder	0.58
960881	AF2-379 C	0.5234	Adder	0.62
960882	AF2-379 E	0.7213	Adder	0.85
960941	AF2-385 C	15.2505	Adder	17.94
960942	AF2-385 E	8.6781	Adder	10.21
960961	AF2-387 C O1	21.1721	Adder	24.91
960962	AF2-387 E O1	10.6179	Adder	12.49
961181	AF2-409 O1	31.9489	Adder	37.59
961621	AG1-001 C	1.5053	Adder	3.34
961622	AG1-001 E	2.4560	Adder	5.45
962161	AG1-061 C O2	11.0981	Adder	24.64
962162	AG1-061 E O2	7.3987	Adder	16.42
962261	AG1-072	8.4243	Adder	18.7
962302	AG1-079 E	0.2503	Adder	0.56
962381	AG1-087 C O2	20.1137	Adder	44.65
962382	AG1-087 E O2	54.2564	Adder	120.44
962611	AG1-110	2.4956	Adder	5.54
962621	AG1-111	1.2726	Adder	2.82
962801	AG1-129 C O2	4.6002	Adder	10.21
962802	AG1-129 E O2	3.0668	Adder	6.81
963001	AG1-149	0.5075	Adder	1.13
963011	AG1-150	6.7652	Adder	15.02
963092	AG1-158 E	2.0440	Adder	4.54
964001	AG1-254 C	3.2122	Adder	7.13
964002	AG1-254 E	1.6124	Adder	3.58
964011	AG1-255 C	5.0930	Adder	11.31
964012	AG1-255 E	2.5465	Adder	5.65
964371	AG1-299 C	0.2313	Adder	0.51
964372	AG1-299 E	0.1542	Adder	0.34
964381	AG1-300 C	0.3855	Adder	0.86

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964382	AG1-300 E	0.2570	Adder	0.57
964551	AG1-318 C	0.0507	Adder	0.11
964552	AG1-318 E	0.1183	Adder	0.26
964962	AG1-360 E	1.4801	Adder	3.29
965321	AG1-397 C	0.7085	Adder	1.57
965322	AG1-397 E	0.9773	Adder	2.17
965611	AG1-429 C O2	5.9637	Adder	13.24
965612	AG1-429 E O2	3.9747	Adder	8.82
965821	AG1-450	4.2277	Adder	9.38
965921	AG1-461 C O2	3.2954	Adder	7.31
965922	AG1-461 E O2	1.7745	Adder	3.94
965951	AG1-464 C O2	3.3685	Adder	7.48
965952	AG1-464 E O2	5.0527	Adder	11.22
966281	AG1-497 C O2	14.1597	Adder	31.43
966282	AG1-497 E O2	6.0685	Adder	13.47
966301	AG1-499 C	0.9525	Adder	2.11
966302	AG1-499 E	0.6350	Adder	1.41
966601	AG1-529 C	8.2540	Adder	18.32
966602	AG1-529 E	4.4055	Adder	9.78
G-007A	G-007A	45.7419	Confirmed LTF	45.7419
VFT	VFT	113.2685	Confirmed LTF	113.2685
CALDERWOOD	CALDERWOOD	4.1818	Confirmed LTF	4.1818
PRAIRIE	PRAIRIE	21.2271	Confirmed LTF	21.2271
CHEOAH	CHEOAH	4.2147	Confirmed LTF	4.2147
CBM-N	CBM-N	18.5148	Confirmed LTF	18.5148
COTTONWOOD	COTTONWOOD	17.4909	Confirmed LTF	17.4909
HAMLET	HAMLET	5.0375	Confirmed LTF	5.0375
GIBSON	GIBSON	4.4581	Confirmed LTF	4.4581
BLUEG	BLUEG	14.1779	Confirmed LTF	14.1779
TRIMBLE	TRIMBLE	4.5433	Confirmed LTF	4.5433
CATAWBA	CATAWBA	3.0173	Confirmed LTF	3.0173

13.5.10 Index 10

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 %	ACID C	MW IMPACT
173975403	213490	CHICHST2	PECO	213496	CHIREACT_53	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	117.24	119.1	DC	33.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.3302	50/50	10.3302
213889	PHLISCT2	10.3302	50/50	10.3302
213890	PHLISCT3	10.3474	50/50	10.3474
213893	PHLISST1	15.1800	50/50	15.1800
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0513	Adder	-0.06
219727	Z1-082 BAT	0.0710	Merchant Transmission	0.0710
227881	GRENWCHG	-0.1506	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1099	Adder	-0.13
231505	HR4	8.5374	50/50	8.5374
231900	EM5	20.7330	50/50	20.7330
231903	GEN4	0.9317	Adder	1.1
231904	DC1 NUG	2.4140	Adder	2.84
231905	DC2 NUG	2.4140	Adder	2.84
231909	HR2	4.0470	50/50	4.0470
231916	EM3	2.7843	50/50	2.7843
232405	W1-003 E	0.8396	Adder	0.99
232407	W1-004 E	0.8396	Adder	0.99
232409	W1-005 E	0.8396	Adder	0.99
232411	W1-006 E	0.8396	Adder	0.99
232412	X1-032 E	0.2721	Adder	0.32
232418	X3-008 E	0.8839	Adder	1.04
232423	X3-066 E	0.2259	Adder	0.27
232425	Y1-079 E	0.4751	Adder	0.56
232427	Y1-080 E	0.1473	Adder	0.17
232429	Y3-058 E	0.4173	Adder	0.49
232433	Z2-076 E	0.1331	Adder	0.16
232435	Z2-077 E	0.1331	Adder	0.16
232851	DUP-SFR1	0.6610	Adder	0.78
232922	MR3 (Deactivation : 01/06/2021)	5.9077	Adder	6.95
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1186	Adder	0.14
233916	AB1-141 E	0.4951	Adder	0.58
233919	AB1-142 E	0.4951	Adder	0.58
233931	AB2-179 C	3.2326	Adder	3.8
917082	CHERRYDALE E	0.8394	Adder	0.99
918835	AA1-102 E	6.3327	Adder	7.45
919831	AA2-069 (Suspended)	26.1215	Adder	30.73

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923921	AB2-032 C	1.0687	Adder	1.26
923922	AB2-032 E	0.5029	Adder	0.59
923951	AB2-036 C	2.6773	Adder	3.15
923952	AB2-036 E	4.3803	Adder	5.15
923961	AB2-037 C	5.8473	Adder	6.88
923962	AB2-037 E	9.5524	Adder	11.24
924681	AB2-120 C	2.5711	Adder	3.02
924682	AB2-120 E	4.1949	Adder	4.94
924781	AB2-130 C O1	2.1665	Adder	2.55
924782	AB2-130 E O1	3.5348	Adder	4.16
924801	AB2-133 C O1	1.9197	Adder	2.26
924802	AB2-133 E O1	2.4348	Adder	2.86
924821	AB2-135 C	2.2429	Adder	2.64
924822	AB2-135 E	2.5579	Adder	3.01
924831	AB2-136 C	1.7528	Adder	2.06
924832	AB2-136 E	1.8588	Adder	2.19
924971	AB2-153 C	0.5972	Adder	0.7
924972	AB2-153 E	0.9744	Adder	1.15
925151	AB2-172 C	1.3543	Adder	1.59
925152	AB2-172 E	2.2097	Adder	2.6
925254	AB2-179 E	1.0548	Adder	1.24
925261	AB2-180 C	0.9577	Adder	1.13
925262	AB2-180 E	0.4104	Adder	0.48
925271	AB2-185 C	1.0728	Adder	1.26
925272	AB2-185 E	0.4598	Adder	0.54
926131	AC1-091 C	0.4247	Adder	0.5
926132	AC1-091 E	0.6965	Adder	0.82
926141	AC1-092 C	0.4247	Adder	0.5
926142	AC1-092 E	0.6965	Adder	0.82
926151	AC1-093 C	0.4021	Adder	0.47
926152	AC1-093 E	0.6625	Adder	0.78
926161	AC1-094 C	0.3398	Adder	0.4
926162	AC1-094 E	0.5606	Adder	0.66
927031	AC1-190 C	2.4910	Adder	2.93
927032	AC1-190 E	1.0676	Adder	1.26
927191	AC1-213 C	0.2176	Adder	0.26
927192	AC1-213 E	0.1428	Adder	0.17
930201	AB1-056 C	4.2270	Adder	4.97
930202	AB1-056 E	12.0378	Adder	14.16
930722	AB1-116 E	-0.0445	Adder	-0.05
931261	AB1-176 C	0.1168	Adder	0.14
931262	AB1-176 E	0.1926	Adder	0.23
932161	AC2-023 C	1.8200	Adder	2.14
932162	AC2-023 E	1.3255	Adder	1.56
933631	AC2-185 C	0.8607	Adder	1.01
933632	AC2-185 E	1.4043	Adder	1.65
933641	AC2-186 C	1.2322	Adder	1.45
933642	AC2-186 E	2.0105	Adder	2.37
934661	AD1-097 1	3.4825	50/50	3.4825
934671	AD1-097 2	3.4825	50/50	3.4825
934681	AD1-097 3	3.4883	50/50	3.4883
934691	AD1-097 4	2.0649	50/50	2.0649

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936451	AD2-059 C	0.0280	Adder	0.03
936452	AD2-059 E	0.0877	Adder	0.1
936611	AD2-076 C O1	1.4547	Adder	1.71
936612	AD2-076 E O1	2.3734	Adder	2.79
938423	AE1-061 BAT	0.3609	Merchant Transmission	0.3609
938651	AE1-087 C	1.1405	Adder	1.34
938652	AE1-087 E	0.2851	Adder	0.34
938814	AE1-107 C	2.7159	Adder	3.2
938815	AE1-107 E	1.9362	Adder	2.28
938873	AE1-115 BAT	1.6266	Merchant Transmission	1.6266
938895	AE1-117 C	3.1636	Adder	3.72
938896	AE1-117 E	8.4364	Adder	9.93
939151	AE1-145	1.3534	Adder	1.59
939303	AE1-161 BAT	3.4900	Merchant Transmission	3.4900
939821	AE1-218 C O1	-0.0485	Adder	-0.06
941021	AE2-093 C	1.2582	Adder	1.48
941022	AE2-093 E	2.0528	Adder	2.42
941181	AE2-112 C	0.5047	Adder	0.59
941182	AE2-112 E	0.8234	Adder	0.97
942441	AE2-257 C	2.1733	Adder	2.56
942442	AE2-257 E	5.7296	Adder	6.74
943361	AF1-007 C	0.1247	Adder	0.15
943362	AF1-007 E	0.3544	Adder	0.42
943441	AF1-015 C	0.4741	Adder	0.56
943442	AF1-015 E	0.6547	Adder	0.77
943651	AF1-036 C	0.6562	Adder	0.77
943652	AF1-036 E	0.9062	Adder	1.07
945661	AF1-231 C	0.5145	Adder	0.61
945662	AF1-231 E	0.7717	Adder	0.91
945791	AF1-244	0.5447	Adder	0.64
945931	AF1-258	0.2189	Adder	0.26
945941	AF1-259	0.0619	Adder	0.07
945991	AF1-264	-0.0780	Adder	-0.09
957263	AF2-020 BAT	1.3218	Merchant Transmission	1.3218
957293	AF2-023 BAT	3.4587	Merchant Transmission	3.4587
957303	AF2-024 BAT	2.5606	Merchant Transmission	2.5606
957611	AF2-055 C	2.3693	Adder	2.79
957612	AF2-055 E	1.0154	Adder	1.19
957661	AF2-060	0.6090	Adder	0.72
957671	AF2-061 O1	2.7067	Adder	3.18
959021	AF2-193 C	7.8108	Adder	9.19
959022	AF2-193 E	21.0695	Adder	24.79
959031	AF2-194 C	7.8108	Adder	9.19
959032	AF2-194 E	21.0695	Adder	24.79
959051	AF2-196 C	0.5927	Adder	0.7
959052	AF2-196 E	1.3830	Adder	1.63
959161	AF2-207 C O1	1.3673	Adder	1.61
959162	AF2-207 E O1	2.0509	Adder	2.41
959571	AF2-248 C	0.2308	Adder	0.27
959572	AF2-248 E	0.2580	Adder	0.3
959581	AF2-249 C	0.0407	Adder	0.05
959582	AF2-249 E	0.1629	Adder	0.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0747	Adder	0.09
959592	AF2-250 E	0.0577	Adder	0.07
960221	AF2-313 C	0.9825	Adder	1.16
960222	AF2-313 E	0.5570	Adder	0.66
960341	AF2-325 C	0.2977	Adder	0.35
960342	AF2-325 E	0.4112	Adder	0.48
960671	AF2-358 C O1	4.2039	Adder	4.95
960672	AF2-358 E O1	2.8026	Adder	3.3
960871	AF2-378 C	0.0786	Adder	0.09
960872	AF2-378 E	0.1090	Adder	0.13
960881	AF2-379 C	0.1118	Adder	0.13
960882	AF2-379 E	0.1541	Adder	0.18
960941	AF2-385 C	3.2419	Adder	3.81
960942	AF2-385 E	1.8447	Adder	2.17
960961	AF2-387 C O1	5.0581	Adder	5.95
960962	AF2-387 E O1	2.5366	Adder	2.98
961181	AF2-409 O1	7.0295	Adder	8.27
962161	AG1-061 C O2	2.3998	Adder	5.33
962162	AG1-061 E O2	1.5999	Adder	3.55
962261	AG1-072	2.0126	Adder	4.47
962302	AG1-079 E	0.0560	Adder	0.12
962381	AG1-087 C O2	4.1183	Adder	9.14
962382	AG1-087 E O2	11.1090	Adder	24.66
962622	AG1-111 BAT	0.8621	Merchant Transmission	0.8621
963001	AG1-149	0.1083	Adder	0.24
963011	AG1-150	1.4346	Adder	3.18
964003	AG1-254 BAT	0.8124	Merchant Transmission	0.8124
964013	AG1-255 BAT	1.2429	Merchant Transmission	1.2429
964083	AG1-263 BAT	0.8039	Merchant Transmission	0.8039
964551	AG1-318 C	0.0105	Adder	0.02
964552	AG1-318 E	0.0245	Adder	0.05
964962	AG1-360 E	0.3154	Adder	0.7
965321	AG1-397 C	0.1499	Adder	0.33
965322	AG1-397 E	0.2068	Adder	0.46
965611	AG1-429 C O2	1.2651	Adder	2.81
965612	AG1-429 E O2	0.8431	Adder	1.87
965821	AG1-450	0.9296	Adder	2.06
965921	AG1-461 C O2	0.6899	Adder	1.53
965922	AG1-461 E O2	0.3715	Adder	0.82
965951	AG1-464 C O2	0.6875	Adder	1.53
965952	AG1-464 E O2	1.0312	Adder	2.29
966281	AG1-497 C O2	2.5786	Adder	5.72
966282	AG1-497 E O2	1.1051	Adder	2.45
966601	AG1-529 C	1.6663	Adder	3.7
966602	AG1-529 E	0.8894	Adder	1.97
CPL	CPL	0.0430	Confirmed LTF	0.0430
CBM-W2	CBM-W2	0.0090	Confirmed LTF	0.0090
NY	NY	0.9030	Confirmed LTF	0.9030
PRAIRIE	PRAIRIE	0.0129	Confirmed LTF	0.0129
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	15.6742	Confirmed LTF	15.6742
SIG	SIG	0.2436	Confirmed LTF	0.2436

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	0.4907	Confirmed LTF	0.4907
CBM-S1	CBM-S1	0.0023	Confirmed LTF	0.0023
G-007	G-007	2.7836	Confirmed LTF	2.7836
GIBSON	GIBSON	0.0060	Confirmed LTF	0.0060
BLUEG	BLUEG	0.0191	Confirmed LTF	0.0191
TRIMBLE	TRIMBLE	0.0061	Confirmed LTF	0.0061
LAGN	LAGN	0.0140	Confirmed LTF	0.0140

13.5.11 Index 11

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
173975402	213496	CHIREACT_53	PECO	213972	TRAINER	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	117.24	119.1	DC	33.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.3302	50/50	10.3302
213889	PHLISCT2	10.3302	50/50	10.3302
213890	PHLISCT3	10.3474	50/50	10.3474
213893	PHLISST1	15.1800	50/50	15.1800
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0513	Adder	-0.06
219727	Z1-082 BAT	0.0710	Merchant Transmission	0.0710
227881	GRENWCHG	-0.1506	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1099	Adder	-0.13
231505	HR4	8.5374	50/50	8.5374
231900	EM5	20.7330	50/50	20.7330
231903	GEN4	0.9317	Adder	1.1
231904	DC1 NUG	2.4140	Adder	2.84
231905	DC2 NUG	2.4140	Adder	2.84
231909	HR2	4.0470	50/50	4.0470
231916	EM3	2.7843	50/50	2.7843
232405	W1-003 E	0.8396	Adder	0.99
232407	W1-004 E	0.8396	Adder	0.99
232409	W1-005 E	0.8396	Adder	0.99
232411	W1-006 E	0.8396	Adder	0.99
232412	X1-032 E	0.2721	Adder	0.32
232418	X3-008 E	0.8839	Adder	1.04
232423	X3-066 E	0.2259	Adder	0.27
232425	Y1-079 E	0.4751	Adder	0.56
232427	Y1-080 E	0.1473	Adder	0.17
232429	Y3-058 E	0.4173	Adder	0.49
232433	Z2-076 E	0.1331	Adder	0.16
232435	Z2-077 E	0.1331	Adder	0.16
232851	DUP-SFR1	0.6610	Adder	0.78
232922	MR3 (Deactivation : 01/06/2021)	5.9077	Adder	6.95
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1186	Adder	0.14
233916	AB1-141 E	0.4951	Adder	0.58
233919	AB1-142 E	0.4951	Adder	0.58
233931	AB2-179 C	3.2326	Adder	3.8
917082	CHERRYDALE E	0.8394	Adder	0.99
918835	AA1-102 E	6.3327	Adder	7.45
919831	AA2-069 (Suspended)	26.1215	Adder	30.73

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923921	AB2-032 C	1.0687	Adder	1.26
923922	AB2-032 E	0.5029	Adder	0.59
923951	AB2-036 C	2.6773	Adder	3.15
923952	AB2-036 E	4.3803	Adder	5.15
923961	AB2-037 C	5.8473	Adder	6.88
923962	AB2-037 E	9.5524	Adder	11.24
924681	AB2-120 C	2.5711	Adder	3.02
924682	AB2-120 E	4.1949	Adder	4.94
924781	AB2-130 C O1	2.1665	Adder	2.55
924782	AB2-130 E O1	3.5348	Adder	4.16
924801	AB2-133 C O1	1.9197	Adder	2.26
924802	AB2-133 E O1	2.4348	Adder	2.86
924821	AB2-135 C	2.2429	Adder	2.64
924822	AB2-135 E	2.5579	Adder	3.01
924831	AB2-136 C	1.7528	Adder	2.06
924832	AB2-136 E	1.8588	Adder	2.19
924971	AB2-153 C	0.5972	Adder	0.7
924972	AB2-153 E	0.9744	Adder	1.15
925151	AB2-172 C	1.3543	Adder	1.59
925152	AB2-172 E	2.2097	Adder	2.6
925254	AB2-179 E	1.0548	Adder	1.24
925261	AB2-180 C	0.9577	Adder	1.13
925262	AB2-180 E	0.4104	Adder	0.48
925271	AB2-185 C	1.0728	Adder	1.26
925272	AB2-185 E	0.4598	Adder	0.54
926131	AC1-091 C	0.4247	Adder	0.5
926132	AC1-091 E	0.6965	Adder	0.82
926141	AC1-092 C	0.4247	Adder	0.5
926142	AC1-092 E	0.6965	Adder	0.82
926151	AC1-093 C	0.4021	Adder	0.47
926152	AC1-093 E	0.6625	Adder	0.78
926161	AC1-094 C	0.3398	Adder	0.4
926162	AC1-094 E	0.5606	Adder	0.66
927031	AC1-190 C	2.4910	Adder	2.93
927032	AC1-190 E	1.0676	Adder	1.26
927191	AC1-213 C	0.2176	Adder	0.26
927192	AC1-213 E	0.1428	Adder	0.17
930201	AB1-056 C	4.2270	Adder	4.97
930202	AB1-056 E	12.0378	Adder	14.16
930722	AB1-116 E	-0.0445	Adder	-0.05
931261	AB1-176 C	0.1168	Adder	0.14
931262	AB1-176 E	0.1926	Adder	0.23
932161	AC2-023 C	1.8200	Adder	2.14
932162	AC2-023 E	1.3255	Adder	1.56
933631	AC2-185 C	0.8607	Adder	1.01
933632	AC2-185 E	1.4043	Adder	1.65
933641	AC2-186 C	1.2322	Adder	1.45
933642	AC2-186 E	2.0105	Adder	2.37
934661	AD1-097 1	3.4825	50/50	3.4825
934671	AD1-097 2	3.4825	50/50	3.4825
934681	AD1-097 3	3.4883	50/50	3.4883
934691	AD1-097 4	2.0649	50/50	2.0649

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936451	AD2-059 C	0.0280	Adder	0.03
936452	AD2-059 E	0.0877	Adder	0.1
936611	AD2-076 C O1	1.4547	Adder	1.71
936612	AD2-076 E O1	2.3734	Adder	2.79
938423	AE1-061 BAT	0.3609	Merchant Transmission	0.3609
938651	AE1-087 C	1.1405	Adder	1.34
938652	AE1-087 E	0.2851	Adder	0.34
938814	AE1-107 C	2.7159	Adder	3.2
938815	AE1-107 E	1.9362	Adder	2.28
938873	AE1-115 BAT	1.6266	Merchant Transmission	1.6266
938895	AE1-117 C	3.1636	Adder	3.72
938896	AE1-117 E	8.4364	Adder	9.93
939151	AE1-145	1.3534	Adder	1.59
939303	AE1-161 BAT	3.4900	Merchant Transmission	3.4900
939821	AE1-218 C O1	-0.0485	Adder	-0.06
941021	AE2-093 C	1.2582	Adder	1.48
941022	AE2-093 E	2.0528	Adder	2.42
941181	AE2-112 C	0.5047	Adder	0.59
941182	AE2-112 E	0.8234	Adder	0.97
942441	AE2-257 C	2.1733	Adder	2.56
942442	AE2-257 E	5.7296	Adder	6.74
943361	AF1-007 C	0.1247	Adder	0.15
943362	AF1-007 E	0.3544	Adder	0.42
943441	AF1-015 C	0.4741	Adder	0.56
943442	AF1-015 E	0.6547	Adder	0.77
943651	AF1-036 C	0.6562	Adder	0.77
943652	AF1-036 E	0.9062	Adder	1.07
945661	AF1-231 C	0.5145	Adder	0.61
945662	AF1-231 E	0.7717	Adder	0.91
945791	AF1-244	0.5447	Adder	0.64
945931	AF1-258	0.2189	Adder	0.26
945941	AF1-259	0.0619	Adder	0.07
945991	AF1-264	-0.0780	Adder	-0.09
957263	AF2-020 BAT	1.3218	Merchant Transmission	1.3218
957293	AF2-023 BAT	3.4587	Merchant Transmission	3.4587
957303	AF2-024 BAT	2.5606	Merchant Transmission	2.5606
957611	AF2-055 C	2.3693	Adder	2.79
957612	AF2-055 E	1.0154	Adder	1.19
957661	AF2-060	0.6090	Adder	0.72
957671	AF2-061 O1	2.7067	Adder	3.18
959021	AF2-193 C	7.8108	Adder	9.19
959022	AF2-193 E	21.0695	Adder	24.79
959031	AF2-194 C	7.8108	Adder	9.19
959032	AF2-194 E	21.0695	Adder	24.79
959051	AF2-196 C	0.5927	Adder	0.7
959052	AF2-196 E	1.3830	Adder	1.63
959161	AF2-207 C O1	1.3673	Adder	1.61
959162	AF2-207 E O1	2.0509	Adder	2.41
959571	AF2-248 C	0.2308	Adder	0.27
959572	AF2-248 E	0.2580	Adder	0.3
959581	AF2-249 C	0.0407	Adder	0.05
959582	AF2-249 E	0.1629	Adder	0.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0747	Adder	0.09
959592	AF2-250 E	0.0577	Adder	0.07
960221	AF2-313 C	0.9825	Adder	1.16
960222	AF2-313 E	0.5570	Adder	0.66
960341	AF2-325 C	0.2977	Adder	0.35
960342	AF2-325 E	0.4112	Adder	0.48
960671	AF2-358 C O1	4.2039	Adder	4.95
960672	AF2-358 E O1	2.8026	Adder	3.3
960871	AF2-378 C	0.0786	Adder	0.09
960872	AF2-378 E	0.1090	Adder	0.13
960881	AF2-379 C	0.1118	Adder	0.13
960882	AF2-379 E	0.1541	Adder	0.18
960941	AF2-385 C	3.2419	Adder	3.81
960942	AF2-385 E	1.8447	Adder	2.17
960961	AF2-387 C O1	5.0581	Adder	5.95
960962	AF2-387 E O1	2.5366	Adder	2.98
961181	AF2-409 O1	7.0295	Adder	8.27
962161	AG1-061 C O2	2.3998	Adder	5.33
962162	AG1-061 E O2	1.5999	Adder	3.55
962261	AG1-072	2.0126	Adder	4.47
962302	AG1-079 E	0.0560	Adder	0.12
962381	AG1-087 C O2	4.1183	Adder	9.14
962382	AG1-087 E O2	11.1090	Adder	24.66
962622	AG1-111 BAT	0.8621	Merchant Transmission	0.8621
963001	AG1-149	0.1083	Adder	0.24
963011	AG1-150	1.4346	Adder	3.18
964003	AG1-254 BAT	0.8124	Merchant Transmission	0.8124
964013	AG1-255 BAT	1.2429	Merchant Transmission	1.2429
964083	AG1-263 BAT	0.8039	Merchant Transmission	0.8039
964551	AG1-318 C	0.0105	Adder	0.02
964552	AG1-318 E	0.0245	Adder	0.05
964962	AG1-360 E	0.3154	Adder	0.7
965321	AG1-397 C	0.1499	Adder	0.33
965322	AG1-397 E	0.2068	Adder	0.46
965611	AG1-429 C O2	1.2651	Adder	2.81
965612	AG1-429 E O2	0.8431	Adder	1.87
965821	AG1-450	0.9296	Adder	2.06
965921	AG1-461 C O2	0.6899	Adder	1.53
965922	AG1-461 E O2	0.3715	Adder	0.82
965951	AG1-464 C O2	0.6875	Adder	1.53
965952	AG1-464 E O2	1.0312	Adder	2.29
966281	AG1-497 C O2	2.5786	Adder	5.72
966282	AG1-497 E O2	1.1051	Adder	2.45
966601	AG1-529 C	1.6663	Adder	3.7
966602	AG1-529 E	0.8894	Adder	1.97
CPL	CPL	0.0430	Confirmed LTF	0.0430
CBM-W2	CBM-W2	0.0090	Confirmed LTF	0.0090
NY	NY	0.9030	Confirmed LTF	0.9030
PRAIRIE	PRAIRIE	0.0129	Confirmed LTF	0.0129
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	15.6742	Confirmed LTF	15.6742
SIG	SIG	0.2436	Confirmed LTF	0.2436

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	0.4907	Confirmed LTF	0.4907
CBM-S1	CBM-S1	0.0023	Confirmed LTF	0.0023
G-007	G-007	2.7836	Confirmed LTF	2.7836
GIBSON	GIBSON	0.0060	Confirmed LTF	0.0060
BLUEG	BLUEG	0.0191	Confirmed LTF	0.0191
TRIMBLE	TRIMBLE	0.0061	Confirmed LTF	0.0061
LAGN	LAGN	0.0140	Confirmed LTF	0.0140

13.5.12 Index 12

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
173791832	213559	DELCOTA P	PECO	228401	MCKLTON	AE	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	725.0	131.6	133.76	DC	33.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213400	COVANTA DELA	8.4717	50/50	8.4717
213888	PHLISCT1	10.3190	50/50	10.3190
213889	PHLISCT2	10.3190	50/50	10.3190
213890	PHLISCT3	10.3359	50/50	10.3359
213893	PHLISST1	15.1631	50/50	15.1631
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0515	Adder	-0.06
219727	Z1-082 BAT	0.0714	Merchant Transmission	0.0714
227881	GRENWCHG	-0.1512	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1105	Adder	-0.13
231505	HR4	8.5257	50/50	8.5257
231900	EM5	20.7046	50/50	20.7046
231903	GEN4	0.9281	Adder	1.09
231904	DC1 NUG	2.4046	Adder	2.83
231905	DC2 NUG	2.4046	Adder	2.83
231909	HR2	4.0393	50/50	4.0393
232405	W1-003 E	0.8355	Adder	0.98
232407	W1-004 E	0.8355	Adder	0.98
232409	W1-005 E	0.8355	Adder	0.98
232411	W1-006 E	0.8355	Adder	0.98
232412	X1-032 E	0.2707	Adder	0.32
232418	X3-008 E	0.8798	Adder	1.04
232423	X3-066 E	0.2249	Adder	0.26
232425	Y1-079 E	0.4730	Adder	0.56
232427	Y1-080 E	0.1466	Adder	0.17
232429	Y3-058 E	0.4153	Adder	0.49
232433	Z2-076 E	0.1324	Adder	0.16
232435	Z2-077 E	0.1324	Adder	0.16
232851	DUP-SFR1	0.6576	Adder	0.77
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1180	Adder	0.14
233916	AB1-141 E	0.4930	Adder	0.58
233919	AB1-142 E	0.4930	Adder	0.58
233931	AB2-179 C	3.2197	Adder	3.79
917082	CHERRYDALE E	0.8352	Adder	0.98
918835	AA1-102 E	6.3011	Adder	7.41
923921	AB2-032 C	1.0642	Adder	1.25
923922	AB2-032 E	0.5008	Adder	0.59
923951	AB2-036 C	2.6657	Adder	3.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	4.3614	Adder	5.13
923961	AB2-037 C	5.8219	Adder	6.85
923962	AB2-037 E	9.5109	Adder	11.19
924681	AB2-120 C	2.5585	Adder	3.01
924682	AB2-120 E	4.1744	Adder	4.91
924781	AB2-130 C O1	2.1558	Adder	2.54
924782	AB2-130 E O1	3.5173	Adder	4.14
924801	AB2-133 C O1	1.9116	Adder	2.25
924802	AB2-133 E O1	2.4245	Adder	2.85
924821	AB2-135 C	2.2327	Adder	2.63
924822	AB2-135 E	2.5463	Adder	3.0
924831	AB2-136 C	1.7444	Adder	2.05
924832	AB2-136 E	1.8499	Adder	2.18
924971	AB2-153 C	0.5947	Adder	0.7
924972	AB2-153 E	0.9703	Adder	1.14
925151	AB2-172 C	1.3480	Adder	1.59
925152	AB2-172 E	2.1994	Adder	2.59
925254	AB2-179 E	1.0506	Adder	1.24
925261	AB2-180 C	0.9531	Adder	1.12
925262	AB2-180 E	0.4085	Adder	0.48
925271	AB2-185 C	1.0680	Adder	1.26
925272	AB2-185 E	0.4577	Adder	0.54
927031	AC1-190 C	2.4794	Adder	2.92
927032	AC1-190 E	1.0626	Adder	1.25
927191	AC1-213 C	0.2165	Adder	0.25
927192	AC1-213 E	0.1421	Adder	0.17
930201	AB1-056 C	4.2057	Adder	4.95
930202	AB1-056 E	11.9770	Adder	14.09
931261	AB1-176 C	0.1163	Adder	0.14
931262	AB1-176 E	0.1918	Adder	0.23
932161	AC2-023 C	1.8112	Adder	2.13
932162	AC2-023 E	1.3191	Adder	1.55
933641	AC2-186 C	1.2258	Adder	1.44
933642	AC2-186 E	2.0000	Adder	2.35
934661	AD1-097 1	3.4787	50/50	3.4787
934671	AD1-097 2	3.4787	50/50	3.4787
934681	AD1-097 3	3.4844	50/50	3.4844
934691	AD1-097 4	2.0626	50/50	2.0626
936451	AD2-059 C	0.0279	Adder	0.03
936452	AD2-059 E	0.0875	Adder	0.1
936611	AD2-076 C O1	1.4485	Adder	1.7
936612	AD2-076 E O1	2.3633	Adder	2.78
938651	AE1-087 C	1.1352	Adder	1.34
938652	AE1-087 E	0.2838	Adder	0.33
938814	AE1-107 C	2.7054	Adder	3.18
938815	AE1-107 E	1.9287	Adder	2.27
938873	AE1-115 BAT	1.6344	Merchant Transmission	1.6344
938895	AE1-117 C	3.1473	Adder	3.7
938896	AE1-117 E	8.3928	Adder	9.87
939151	AE1-145	1.3466	Adder	1.58
939303	AE1-161 BAT	3.5100	Merchant Transmission	3.5100
939821	AE1-218 C O1	-0.0488	Adder	-0.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941021	AE2-093 C	1.2525	Adder	1.47
941022	AE2-093 E	2.0436	Adder	2.4
941181	AE2-112 C	0.5025	Adder	0.59
941182	AE2-112 E	0.8199	Adder	0.96
942441	AE2-257 C	2.1624	Adder	2.54
942442	AE2-257 E	5.7008	Adder	6.71
943361	AF1-007 C	0.1241	Adder	0.15
943362	AF1-007 E	0.3526	Adder	0.41
943441	AF1-015 C	0.4719	Adder	0.56
943442	AF1-015 E	0.6517	Adder	0.77
943651	AF1-036 C	0.6535	Adder	0.77
943652	AF1-036 E	0.9024	Adder	1.06
945661	AF1-231 C	0.5120	Adder	0.6
945662	AF1-231 E	0.7679	Adder	0.9
945791	AF1-244	0.5420	Adder	0.64
945931	AF1-258	0.2178	Adder	0.26
945941	AF1-259	0.0616	Adder	0.07
945991	AF1-264	-0.0784	Adder	-0.09
957293	AF2-023 BAT	3.4752	Merchant Transmission	3.4752
957303	AF2-024 BAT	2.5699	Merchant Transmission	2.5699
957611	AF2-055 C	2.3574	Adder	2.77
957612	AF2-055 E	1.0103	Adder	1.19
957661	AF2-060	0.6060	Adder	0.71
957671	AF2-061 O1	2.6931	Adder	3.17
959021	AF2-193 C	7.7714	Adder	9.14
959022	AF2-193 E	20.9631	Adder	24.66
959031	AF2-194 C	7.7714	Adder	9.14
959032	AF2-194 E	20.9631	Adder	24.66
959051	AF2-196 C	0.5897	Adder	0.69
959052	AF2-196 E	1.3761	Adder	1.62
959161	AF2-207 C O1	1.3606	Adder	1.6
959162	AF2-207 E O1	2.0409	Adder	2.4
959571	AF2-248 C	0.2297	Adder	0.27
959572	AF2-248 E	0.2567	Adder	0.3
959581	AF2-249 C	0.0405	Adder	0.05
959582	AF2-249 E	0.1621	Adder	0.19
959591	AF2-250 C	0.0743	Adder	0.09
959592	AF2-250 E	0.0574	Adder	0.07
960221	AF2-313 C	0.9782	Adder	1.15
960222	AF2-313 E	0.5546	Adder	0.65
960341	AF2-325 C	0.2963	Adder	0.35
960342	AF2-325 E	0.4092	Adder	0.48
960671	AF2-358 C O1	4.1840	Adder	4.92
960672	AF2-358 E O1	2.7894	Adder	3.28
960871	AF2-378 C	0.0782	Adder	0.09
960872	AF2-378 E	0.1085	Adder	0.13
960881	AF2-379 C	0.1113	Adder	0.13
960882	AF2-379 E	0.1534	Adder	0.18
960941	AF2-385 C	3.2260	Adder	3.8
960942	AF2-385 E	1.8357	Adder	2.16
960961	AF2-387 C O1	5.0355	Adder	5.92
960962	AF2-387 E O1	2.5253	Adder	2.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961181	AF2-409 O1	6.9963	Adder	8.23
962161	AG1-061 C O2	2.3880	Adder	5.3
962162	AG1-061 E O2	1.5920	Adder	3.53
962261	AG1-072	2.0036	Adder	4.45
962302	AG1-079 E	0.0557	Adder	0.12
962381	AG1-087 C O2	4.0974	Adder	9.1
962382	AG1-087 E O2	11.0526	Adder	24.53
962622	AG1-111 BAT	0.8662	Merchant Transmission	0.8662
963001	AG1-149	0.1077	Adder	0.24
963011	AG1-150	1.4274	Adder	3.17
964003	AG1-254 BAT	0.8164	Merchant Transmission	0.8164
964013	AG1-255 BAT	1.2493	Merchant Transmission	1.2493
964083	AG1-263 BAT	0.8081	Merchant Transmission	0.8081
964551	AG1-318 C	0.0104	Adder	0.02
964552	AG1-318 E	0.0243	Adder	0.05
964962	AG1-360 E	0.3139	Adder	0.7
965321	AG1-397 C	0.1492	Adder	0.33
965322	AG1-397 E	0.2058	Adder	0.46
965611	AG1-429 C O2	1.2587	Adder	2.79
965612	AG1-429 E O2	0.8389	Adder	1.86
965821	AG1-450	0.9252	Adder	2.05
965921	AG1-461 C O2	0.6864	Adder	1.52
965922	AG1-461 E O2	0.3696	Adder	0.82
965951	AG1-464 C O2	0.6839	Adder	1.52
965952	AG1-464 E O2	1.0258	Adder	2.28
966601	AG1-529 C	1.6575	Adder	3.68
966602	AG1-529 E	0.8847	Adder	1.96
CPLE	CPLE	0.0164	Confirmed LTF	0.0164
CALDERWOOD	CALDERWOOD	0.0099	Confirmed LTF	0.0099
NY	NY	0.9246	Confirmed LTF	0.9246
PRAIRIE	PRAIRIE	0.1137	Confirmed LTF	0.1137
O-066	O-066	15.9366	Confirmed LTF	15.9366
SIGE	SIGE	0.2436	Confirmed LTF	0.2436
CBM-S2	CBM-S2	0.0835	Confirmed LTF	0.0835
CHEOAH	CHEOAH	0.0100	Confirmed LTF	0.0100
COTTONWOOD	COTTONWOOD	0.0651	Confirmed LTF	0.0651
G-007	G-007	2.8245	Confirmed LTF	2.8245
GIBSON	GIBSON	0.0273	Confirmed LTF	0.0273
BLUEG	BLUEG	0.0868	Confirmed LTF	0.0868
TRIMBLE	TRIMBLE	0.0278	Confirmed LTF	0.0278

13.5.13 Index 13

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 %	ACID C	MW IMPACT
174170144	213973	TRAINER2	PECO	213559	DELCOTAP	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	110.32	112.18	DC	33.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.3302	50/50	10.3302
213889	PHLISCT2	10.3302	50/50	10.3302
213890	PHLISCT3	10.3474	50/50	10.3474
213893	PHLISST1	15.1800	50/50	15.1800
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0513	Adder	-0.06
219727	Z1-082 BAT	0.0710	Merchant Transmission	0.0710
227881	GRENWCHG	-0.1506	Adder	-0.18
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1099	Adder	-0.13
231505	HR4	8.5374	50/50	8.5374
231900	EM5	20.7330	50/50	20.7330
231903	GEN4	0.9317	Adder	1.1
231904	DC1 NUG	2.4140	Adder	2.84
231905	DC2 NUG	2.4140	Adder	2.84
231909	HR2	4.0470	50/50	4.0470
231916	EM3	2.7843	50/50	2.7843
232405	W1-003 E	0.8396	Adder	0.99
232407	W1-004 E	0.8396	Adder	0.99
232409	W1-005 E	0.8396	Adder	0.99
232411	W1-006 E	0.8396	Adder	0.99
232412	X1-032 E	0.2721	Adder	0.32
232418	X3-008 E	0.8839	Adder	1.04
232423	X3-066 E	0.2259	Adder	0.27
232425	Y1-079 E	0.4751	Adder	0.56
232427	Y1-080 E	0.1473	Adder	0.17
232429	Y3-058 E	0.4173	Adder	0.49
232433	Z2-076 E	0.1331	Adder	0.16
232435	Z2-077 E	0.1331	Adder	0.16
232851	DUP-SFR1	0.6610	Adder	0.78
232922	MR3 (Deactivation : 01/06/2021)	5.9077	Adder	6.95
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1186	Adder	0.14
233916	AB1-141 E	0.4951	Adder	0.58
233919	AB1-142 E	0.4951	Adder	0.58
233931	AB2-179 C	3.2326	Adder	3.8
917082	CHERRYDALE E	0.8394	Adder	0.99
918835	AA1-102 E	6.3327	Adder	7.45
919831	AA2-069 (Suspended)	26.1215	Adder	30.73

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923921	AB2-032 C	1.0687	Adder	1.26
923922	AB2-032 E	0.5029	Adder	0.59
923951	AB2-036 C	2.6773	Adder	3.15
923952	AB2-036 E	4.3803	Adder	5.15
923961	AB2-037 C	5.8473	Adder	6.88
923962	AB2-037 E	9.5524	Adder	11.24
924681	AB2-120 C	2.5711	Adder	3.02
924682	AB2-120 E	4.1949	Adder	4.94
924781	AB2-130 C O1	2.1665	Adder	2.55
924782	AB2-130 E O1	3.5348	Adder	4.16
924801	AB2-133 C O1	1.9197	Adder	2.26
924802	AB2-133 E O1	2.4348	Adder	2.86
924821	AB2-135 C	2.2429	Adder	2.64
924822	AB2-135 E	2.5579	Adder	3.01
924831	AB2-136 C	1.7528	Adder	2.06
924832	AB2-136 E	1.8588	Adder	2.19
924971	AB2-153 C	0.5972	Adder	0.7
924972	AB2-153 E	0.9744	Adder	1.15
925151	AB2-172 C	1.3543	Adder	1.59
925152	AB2-172 E	2.2097	Adder	2.6
925254	AB2-179 E	1.0548	Adder	1.24
925261	AB2-180 C	0.9577	Adder	1.13
925262	AB2-180 E	0.4104	Adder	0.48
925271	AB2-185 C	1.0728	Adder	1.26
925272	AB2-185 E	0.4598	Adder	0.54
926131	AC1-091 C	0.4247	Adder	0.5
926132	AC1-091 E	0.6965	Adder	0.82
926141	AC1-092 C	0.4247	Adder	0.5
926142	AC1-092 E	0.6965	Adder	0.82
926151	AC1-093 C	0.4021	Adder	0.47
926152	AC1-093 E	0.6625	Adder	0.78
926161	AC1-094 C	0.3398	Adder	0.4
926162	AC1-094 E	0.5606	Adder	0.66
927031	AC1-190 C	2.4910	Adder	2.93
927032	AC1-190 E	1.0676	Adder	1.26
927191	AC1-213 C	0.2176	Adder	0.26
927192	AC1-213 E	0.1428	Adder	0.17
930201	AB1-056 C	4.2270	Adder	4.97
930202	AB1-056 E	12.0378	Adder	14.16
930722	AB1-116 E	-0.0445	Adder	-0.05
931261	AB1-176 C	0.1168	Adder	0.14
931262	AB1-176 E	0.1926	Adder	0.23
932161	AC2-023 C	1.8200	Adder	2.14
932162	AC2-023 E	1.3255	Adder	1.56
933631	AC2-185 C	0.8607	Adder	1.01
933632	AC2-185 E	1.4043	Adder	1.65
933641	AC2-186 C	1.2322	Adder	1.45
933642	AC2-186 E	2.0105	Adder	2.37
934661	AD1-097 1	3.4825	50/50	3.4825
934671	AD1-097 2	3.4825	50/50	3.4825
934681	AD1-097 3	3.4883	50/50	3.4883
934691	AD1-097 4	2.0649	50/50	2.0649

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936451	AD2-059 C	0.0280	Adder	0.03
936452	AD2-059 E	0.0877	Adder	0.1
936611	AD2-076 C O1	1.4547	Adder	1.71
936612	AD2-076 E O1	2.3734	Adder	2.79
938423	AE1-061 BAT	0.3609	Merchant Transmission	0.3609
938651	AE1-087 C	1.1405	Adder	1.34
938652	AE1-087 E	0.2851	Adder	0.34
938814	AE1-107 C	2.7159	Adder	3.2
938815	AE1-107 E	1.9362	Adder	2.28
938873	AE1-115 BAT	1.6266	Merchant Transmission	1.6266
938895	AE1-117 C	3.1636	Adder	3.72
938896	AE1-117 E	8.4364	Adder	9.93
939151	AE1-145	1.3534	Adder	1.59
939303	AE1-161 BAT	3.4900	Merchant Transmission	3.4900
939821	AE1-218 C O1	-0.0485	Adder	-0.06
941021	AE2-093 C	1.2582	Adder	1.48
941022	AE2-093 E	2.0528	Adder	2.42
941181	AE2-112 C	0.5047	Adder	0.59
941182	AE2-112 E	0.8234	Adder	0.97
942441	AE2-257 C	2.1733	Adder	2.56
942442	AE2-257 E	5.7296	Adder	6.74
943361	AF1-007 C	0.1247	Adder	0.15
943362	AF1-007 E	0.3544	Adder	0.42
943441	AF1-015 C	0.4741	Adder	0.56
943442	AF1-015 E	0.6547	Adder	0.77
943651	AF1-036 C	0.6562	Adder	0.77
943652	AF1-036 E	0.9062	Adder	1.07
945661	AF1-231 C	0.5145	Adder	0.61
945662	AF1-231 E	0.7717	Adder	0.91
945791	AF1-244	0.5447	Adder	0.64
945931	AF1-258	0.2189	Adder	0.26
945941	AF1-259	0.0619	Adder	0.07
945991	AF1-264	-0.0780	Adder	-0.09
957263	AF2-020 BAT	1.3218	Merchant Transmission	1.3218
957293	AF2-023 BAT	3.4587	Merchant Transmission	3.4587
957303	AF2-024 BAT	2.5606	Merchant Transmission	2.5606
957611	AF2-055 C	2.3693	Adder	2.79
957612	AF2-055 E	1.0154	Adder	1.19
957661	AF2-060	0.6090	Adder	0.72
957671	AF2-061 O1	2.7067	Adder	3.18
959021	AF2-193 C	7.8108	Adder	9.19
959022	AF2-193 E	21.0695	Adder	24.79
959031	AF2-194 C	7.8108	Adder	9.19
959032	AF2-194 E	21.0695	Adder	24.79
959051	AF2-196 C	0.5927	Adder	0.7
959052	AF2-196 E	1.3830	Adder	1.63
959161	AF2-207 C O1	1.3673	Adder	1.61
959162	AF2-207 E O1	2.0509	Adder	2.41
959571	AF2-248 C	0.2308	Adder	0.27
959572	AF2-248 E	0.2580	Adder	0.3
959581	AF2-249 C	0.0407	Adder	0.05
959582	AF2-249 E	0.1629	Adder	0.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0747	Adder	0.09
959592	AF2-250 E	0.0577	Adder	0.07
960221	AF2-313 C	0.9825	Adder	1.16
960222	AF2-313 E	0.5570	Adder	0.66
960341	AF2-325 C	0.2977	Adder	0.35
960342	AF2-325 E	0.4112	Adder	0.48
960671	AF2-358 C O1	4.2039	Adder	4.95
960672	AF2-358 E O1	2.8026	Adder	3.3
960871	AF2-378 C	0.0786	Adder	0.09
960872	AF2-378 E	0.1090	Adder	0.13
960881	AF2-379 C	0.1118	Adder	0.13
960882	AF2-379 E	0.1541	Adder	0.18
960941	AF2-385 C	3.2419	Adder	3.81
960942	AF2-385 E	1.8447	Adder	2.17
960961	AF2-387 C O1	5.0581	Adder	5.95
960962	AF2-387 E O1	2.5366	Adder	2.98
961181	AF2-409 O1	7.0295	Adder	8.27
962161	AG1-061 C O2	2.3998	Adder	5.33
962162	AG1-061 E O2	1.5999	Adder	3.55
962261	AG1-072	2.0126	Adder	4.47
962302	AG1-079 E	0.0560	Adder	0.12
962381	AG1-087 C O2	4.1183	Adder	9.14
962382	AG1-087 E O2	11.1090	Adder	24.66
962622	AG1-111 BAT	0.8621	Merchant Transmission	0.8621
963001	AG1-149	0.1083	Adder	0.24
963011	AG1-150	1.4346	Adder	3.18
964003	AG1-254 BAT	0.8124	Merchant Transmission	0.8124
964013	AG1-255 BAT	1.2429	Merchant Transmission	1.2429
964083	AG1-263 BAT	0.8039	Merchant Transmission	0.8039
964551	AG1-318 C	0.0105	Adder	0.02
964552	AG1-318 E	0.0245	Adder	0.05
964962	AG1-360 E	0.3154	Adder	0.7
965321	AG1-397 C	0.1499	Adder	0.33
965322	AG1-397 E	0.2068	Adder	0.46
965611	AG1-429 C O2	1.2651	Adder	2.81
965612	AG1-429 E O2	0.8431	Adder	1.87
965821	AG1-450	0.9296	Adder	2.06
965921	AG1-461 C O2	0.6899	Adder	1.53
965922	AG1-461 E O2	0.3715	Adder	0.82
965951	AG1-464 C O2	0.6875	Adder	1.53
965952	AG1-464 E O2	1.0312	Adder	2.29
966281	AG1-497 C O2	2.5786	Adder	5.72
966282	AG1-497 E O2	1.1051	Adder	2.45
966601	AG1-529 C	1.6663	Adder	3.7
966602	AG1-529 E	0.8894	Adder	1.97
CPL	CPL	0.0430	Confirmed LTF	0.0430
CBM-W2	CBM-W2	0.0090	Confirmed LTF	0.0090
NY	NY	0.9030	Confirmed LTF	0.9030
PRAIRIE	PRAIRIE	0.0129	Confirmed LTF	0.0129
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	15.6742	Confirmed LTF	15.6742
SIG	SIG	0.2436	Confirmed LTF	0.2436

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	0.4907	Confirmed LTF	0.4907
CBM-S1	CBM-S1	0.0023	Confirmed LTF	0.0023
G-007	G-007	2.7836	Confirmed LTF	2.7836
GIBSON	GIBSON	0.0060	Confirmed LTF	0.0060
BLUEG	BLUEG	0.0191	Confirmed LTF	0.0191
TRIMBLE	TRIMBLE	0.0061	Confirmed LTF	0.0061
LAGN	LAGN	0.0140	Confirmed LTF	0.0140

13.5.14 Index 14

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 IMPAC T
174170136	214221	CHIREACT_43	PECO	213489	CHICHST1	PECO	1	PECO_P4_POST475/ * \$ DELCO \$ PECO_P4_POST475 \$ STBK	breaker	1770.0	113.19	114.96	DC	67.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	18.5757	50/50	18.5757
213889	PHLISCT2	18.5757	50/50	18.5757
213890	PHLISCT3	18.6371	50/50	18.6371
213893	PHLISST1	27.3413	50/50	27.3413
231505	HR4	15.3713	50/50	15.3713
231900	EM5	37.3291	50/50	37.3291
231903	GEN4	1.7736	Adder	2.09
231904	DC1 NUG	4.5952	Adder	5.41
231905	DC2 NUG	4.5952	Adder	5.41
231909	HR2	7.3436	50/50	7.3436
231916	EM3	5.0524	50/50	5.0524
232405	W1-003 E	1.6625	Adder	1.96
232407	W1-004 E	1.6625	Adder	1.96
232409	W1-005 E	1.6625	Adder	1.96
232411	W1-006 E	1.6625	Adder	1.96
232412	X1-032 E	0.5382	Adder	0.63
232418	X3-008 E	1.7297	Adder	2.03
232423	X3-066 E	0.4317	Adder	0.51
232425	Y1-079 E	0.9122	Adder	1.07
232427	Y1-080 E	0.2894	Adder	0.34
232429	Y3-058 E	0.8243	Adder	0.97
232433	Z2-076 E	0.2647	Adder	0.31
232435	Z2-077 E	0.2647	Adder	0.31
232851	DUP-SFR1	1.3149	Adder	1.55
232922	MR3 (Deactivation : 01/06/2021)	12.1172	Adder	14.26
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2362	Adder	0.28
233916	AB1-141 E	0.9417	Adder	1.11
233919	AB1-142 E	0.9417	Adder	1.11
233931	AB2-179 C	5.9907	Adder	7.05
917082	CHERRYDALE E	1.6622	Adder	1.96
918835	AA1-102 E	12.5239	Adder	14.73
919831	AA2-069 (Suspended)	53.5770	Adder	63.03
923921	AB2-032 C	2.0328	Adder	2.39
923922	AB2-032 E	0.9566	Adder	1.13
923951	AB2-036 C	5.1430	Adder	6.05
923952	AB2-036 E	8.4145	Adder	9.9
923961	AB2-037 C	11.3224	Adder	13.32
923962	AB2-037 E	18.4967	Adder	21.76
924681	AB2-120 C	5.0918	Adder	5.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924682	AB2-120 E	8.3076	Adder	9.77
924781	AB2-130 C O1	4.2973	Adder	5.06
924782	AB2-130 E O1	7.0113	Adder	8.25
924801	AB2-133 C O1	3.6526	Adder	4.3
924802	AB2-133 E O1	4.6325	Adder	5.45
924821	AB2-135 C	4.3068	Adder	5.07
924822	AB2-135 E	4.9118	Adder	5.78
924831	AB2-136 C	3.4369	Adder	4.04
924832	AB2-136 E	3.6448	Adder	4.29
924971	AB2-153 C	1.1360	Adder	1.34
924972	AB2-153 E	1.8535	Adder	2.18
925151	AB2-172 C	2.6504	Adder	3.12
925152	AB2-172 E	4.3243	Adder	5.09
925254	AB2-179 E	1.9549	Adder	2.3
925261	AB2-180 C	1.8919	Adder	2.23
925262	AB2-180 E	0.8108	Adder	0.95
925271	AB2-185 C	2.0599	Adder	2.42
925272	AB2-185 E	0.8828	Adder	1.04
926131	AC1-091 C	0.8752	Adder	1.03
926132	AC1-091 E	1.4353	Adder	1.69
926141	AC1-092 C	0.8752	Adder	1.03
926142	AC1-092 E	1.4353	Adder	1.69
926151	AC1-093 C	0.8285	Adder	0.97
926152	AC1-093 E	1.3652	Adder	1.61
926161	AC1-094 C	0.7001	Adder	0.82
926162	AC1-094 E	1.1552	Adder	1.36
927031	AC1-190 C	4.8766	Adder	5.74
927032	AC1-190 E	2.0900	Adder	2.46
927191	AC1-213 C	0.4304	Adder	0.51
927192	AC1-213 E	0.2824	Adder	0.33
930201	AB1-056 C	8.4256	Adder	9.91
930202	AB1-056 E	23.9946	Adder	28.23
931261	AB1-176 C	0.2232	Adder	0.26
931262	AB1-176 E	0.3681	Adder	0.43
932161	AC2-023 C	3.5923	Adder	4.23
932162	AC2-023 E	2.6163	Adder	3.08
933631	AC2-185 C	1.7737	Adder	2.09
933632	AC2-185 E	2.8939	Adder	3.4
933641	AC2-186 C	2.4584	Adder	2.89
933642	AC2-186 E	4.0110	Adder	4.72
934661	AD1-097 1	6.2622	50/50	6.2622
934671	AD1-097 2	6.2622	50/50	6.2622
934681	AD1-097 3	6.2829	50/50	6.2829
934691	AD1-097 4	3.7191	50/50	3.7191
936451	AD2-059 C	0.0512	Adder	0.06
936452	AD2-059 E	0.1608	Adder	0.19
936611	AD2-076 C O1	2.7730	Adder	3.26
936612	AD2-076 E O1	4.5244	Adder	5.32
938651	AE1-087 C	2.2319	Adder	2.63
938652	AE1-087 E	0.5580	Adder	0.66
938814	AE1-107 C	5.0318	Adder	5.92
938815	AE1-107 E	3.5872	Adder	4.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938895	AE1-117 C	6.2999	Adder	7.41
938896	AE1-117 E	16.7998	Adder	19.76
939151	AE1-145	2.6800	Adder	3.15
941021	AE2-093 C	2.4335	Adder	2.86
941022	AE2-093 E	3.9705	Adder	4.67
941181	AE2-112 C	0.9621	Adder	1.13
941182	AE2-112 E	1.5697	Adder	1.85
942441	AE2-257 C	4.3287	Adder	5.09
942442	AE2-257 E	11.4120	Adder	13.43
943361	AF1-007 C	0.2486	Adder	0.29
943362	AF1-007 E	0.7065	Adder	0.83
943441	AF1-015 C	0.9169	Adder	1.08
943442	AF1-015 E	1.2662	Adder	1.49
943651	AF1-036 C	1.2510	Adder	1.47
943652	AF1-036 E	1.7276	Adder	2.03
945661	AF1-231 C	1.0187	Adder	1.2
945662	AF1-231 E	1.5281	Adder	1.8
945791	AF1-244	1.0773	Adder	1.27
945931	AF1-258	0.4324	Adder	0.51
945941	AF1-259	0.1183	Adder	0.14
957443	AF2-038 BAT	3.9420	Merchant Transmission	3.9420
957611	AF2-055 C	4.6916	Adder	5.52
957612	AF2-055 E	2.0107	Adder	2.37
957661	AF2-060	1.2060	Adder	1.42
957671	AF2-061 O1	5.3601	Adder	6.31
959021	AF2-193 C	15.5690	Adder	18.32
959022	AF2-193 E	41.9971	Adder	49.41
959031	AF2-194 C	15.5690	Adder	18.32
959032	AF2-194 E	41.9971	Adder	49.41
959051	AF2-196 C	1.1805	Adder	1.39
959052	AF2-196 E	2.7546	Adder	3.24
959161	AF2-207 C O1	2.7059	Adder	3.18
959162	AF2-207 E O1	4.0589	Adder	4.78
959571	AF2-248 C	0.4567	Adder	0.54
959572	AF2-248 E	0.5104	Adder	0.6
959581	AF2-249 C	0.0806	Adder	0.09
959582	AF2-249 E	0.3224	Adder	0.38
959591	AF2-250 C	0.1478	Adder	0.17
959592	AF2-250 E	0.1142	Adder	0.13
960221	AF2-313 C	1.8776	Adder	2.21
960222	AF2-313 E	1.0645	Adder	1.25
960341	AF2-325 C	0.5834	Adder	0.69
960342	AF2-325 E	0.8057	Adder	0.95
960671	AF2-358 C O1	8.2610	Adder	9.72
960672	AF2-358 E O1	5.5073	Adder	6.48
960871	AF2-378 C	0.1540	Adder	0.18
960872	AF2-378 E	0.2137	Adder	0.25
960881	AF2-379 C	0.2211	Adder	0.26
960882	AF2-379 E	0.3047	Adder	0.36
960941	AF2-385 C	6.4159	Adder	7.55
960942	AF2-385 E	3.6509	Adder	4.3
960961	AF2-387 C O1	9.7539	Adder	11.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960962	AF2-387 E O1	4.8916	Adder	5.75
961181	AF2-409 O1	13.8125	Adder	16.25
962161	AG1-061 C O2	4.7323	Adder	10.5
962162	AG1-061 E O2	3.1549	Adder	7.0
962261	AG1-072	3.8811	Adder	8.62
962302	AG1-079 E	0.1092	Adder	0.24
962381	AG1-087 C O2	8.2194	Adder	18.25
962382	AG1-087 E O2	22.1717	Adder	49.22
963001	AG1-149	0.2141	Adder	0.48
963011	AG1-150	2.8409	Adder	6.31
964551	AG1-318 C	0.0209	Adder	0.05
964552	AG1-318 E	0.0487	Adder	0.11
964962	AG1-360 E	0.6240	Adder	1.39
965321	AG1-397 C	0.2970	Adder	0.66
965322	AG1-397 E	0.4097	Adder	0.91
965611	AG1-429 C O2	2.5050	Adder	5.56
965612	AG1-429 E O2	1.6695	Adder	3.71
965821	AG1-450	1.8262	Adder	4.05
965921	AG1-461 C O2	1.3698	Adder	3.04
965922	AG1-461 E O2	0.7376	Adder	1.64
965951	AG1-464 C O2	1.3715	Adder	3.04
965952	AG1-464 E O2	2.0573	Adder	4.57
966281	AG1-497 C O2	5.2888	Adder	11.74
966282	AG1-497 E O2	2.2666	Adder	5.03
966601	AG1-529 C	3.3350	Adder	7.4
966602	AG1-529 E	1.7801	Adder	3.95
CALDERWOOD	CALDERWOOD	0.1312	Confirmed LTF	0.1312
NY	NY	1.2548	Confirmed LTF	1.2548
PRAIRIE	PRAIRIE	0.7646	Confirmed LTF	0.7646
O-066	O-066	19.5439	Confirmed LTF	19.5439
SIGE	SIGE	0.2732	Confirmed LTF	0.2732
CHEOAH	CHEOAH	0.1316	Confirmed LTF	0.1316
COTTONWOOD	COTTONWOOD	0.5838	Confirmed LTF	0.5838
G-007	G-007	3.0545	Confirmed LTF	3.0545
HAMLET	HAMLET	0.1236	Confirmed LTF	0.1236
GIBSON	GIBSON	0.1665	Confirmed LTF	0.1665
BLUEG	BLUEG	0.5277	Confirmed LTF	0.5277
TRIMBLE	TRIMBLE	0.1697	Confirmed LTF	0.1697
CATAWBA	CATAWBA	0.0805	Confirmed LTF	0.0805

13.5.15 Index 15

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 %	ACID C	MW IMPACT
174376386	219702	HILLTOP_2	PSE&G	219101	BEAVERBK_1	PSE&G	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	740.0	103.8	105.49	DC	27.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200062	SALEM G3	3.0554	Adder	3.59
219137	THOSOLAR C (Deactivation : 01/06/2015)	-0.0341	Adder	-0.04
227801	ONTC&DCT	2.6871	Adder	3.16
227842	MARINGEN	0.5430	Adder	0.64
227928	V4-067E	0.1150	Adder	0.14
228102	BLE#2 ST (Deactivation : 30/04/2019)	9.9702	Adder	11.73
228251	CARLLS#4	0.2131	Adder	0.25
228261	V4-054E	0.2766	Adder	0.33
228712	V2-041E	0.1462	Adder	0.17
228721	V2-035E	0.0158	Adder	0.02
231903	GEN4	0.5126	Adder	0.6
231904	DC1 NUG	1.3280	Adder	1.56
231905	DC2 NUG	1.3280	Adder	1.56
232405	W1-003 E	0.6555	Adder	0.77
232407	W1-004 E	0.6555	Adder	0.77
232409	W1-005 E	0.6555	Adder	0.77
232411	W1-006 E	0.6555	Adder	0.77
232412	X1-032 E	0.2110	Adder	0.25
232418	X3-008 E	0.6361	Adder	0.75
232423	X3-066 E	0.1386	Adder	0.16
232425	Y1-079 E	0.2997	Adder	0.35
232427	Y1-080 E	0.1088	Adder	0.13
232429	Y3-058 E	0.3206	Adder	0.38
232433	Z2-076 E	0.1074	Adder	0.13
232435	Z2-077 E	0.1074	Adder	0.13
232851	DUP-SFR1	0.5339	Adder	0.63
232922	MR3 (Deactivation : 01/06/2021)	5.7751	Adder	6.79
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.0964	Adder	0.11
233916	AB1-141 E	0.2938	Adder	0.35
233919	AB1-142 E	0.2938	Adder	0.35
902092	W1-130E	0.3409	Adder	0.4
902432	W2-030 E	0.4185	Adder	0.49
910862	OWENSCORIN E	0.1856	50/50	0.1856
917082	CHERRYDALE E	0.6556	Adder	0.77
918835	AA1-102 E	4.9027	Adder	5.77
919831	AA2-069 (Suspended)	25.5349	Adder	30.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923921	AB2-032 C	0.6343	Adder	0.75
923922	AB2-032 E	0.2985	Adder	0.35
923951	AB2-036 C	1.6900	Adder	1.99
923952	AB2-036 E	2.7650	Adder	3.25
923961	AB2-037 C	3.8276	Adder	4.5
923962	AB2-037 E	6.2529	Adder	7.36
924051	AB2-049 C	0.1195	50/50	0.1195
924052	AB2-049 E	0.1950	50/50	0.1950
924531	AB2-102 C	13.3760	Adder	15.74
924532	AB2-102 E	0.2972	Adder	0.35
924681	AB2-120 C	2.0094	Adder	2.36
924682	AB2-120 E	3.2785	Adder	3.86
924702	AB2-122 E (Withdrawn : 05/05/2020)	0.0863	Adder	0.1
924781	AB2-130 C O1	1.7135	Adder	2.02
924782	AB2-130 E O1	2.7957	Adder	3.29
924801	AB2-133 C O1	1.1480	Adder	1.35
924802	AB2-133 E O1	1.4559	Adder	1.71
924821	AB2-135 C	1.4413	Adder	1.7
924822	AB2-135 E	1.6437	Adder	1.93
924831	AB2-136 C	1.2793	Adder	1.51
924832	AB2-136 E	1.3567	Adder	1.6
924971	AB2-153 C	0.3545	Adder	0.42
924972	AB2-153 E	0.5783	Adder	0.68
925151	AB2-172 C	0.9747	Adder	1.15
925152	AB2-172 E	1.5902	Adder	1.87
925261	AB2-180 C	0.7359	Adder	0.87
925262	AB2-180 E	0.3154	Adder	0.37
925271	AB2-185 C	0.6768	Adder	0.8
925272	AB2-185 E	0.2900	Adder	0.34
926131	AC1-091 C	0.4274	Adder	0.5
926132	AC1-091 E	0.7010	Adder	0.82
926141	AC1-092 C	0.4274	Adder	0.5
926142	AC1-092 E	0.7010	Adder	0.82
926151	AC1-093 C	0.4046	Adder	0.48
926152	AC1-093 E	0.6668	Adder	0.78
926161	AC1-094 C	0.3420	Adder	0.4
926162	AC1-094 E	0.5642	Adder	0.66
927031	AC1-190 C	1.7972	Adder	2.11
927032	AC1-190 E	0.7702	Adder	0.91
927191	AC1-213 C	0.1687	Adder	0.2
927192	AC1-213 E	0.1107	Adder	0.13
930002	AB1-001 E	0.0918	Adder	0.11
930201	AB1-056 C	3.4552	Adder	4.06
930202	AB1-056 E	9.8398	Adder	11.58
930722	AB1-116 E	0.0590	Adder	0.07
930732	AB1-119 E	0.0813	50/50	0.0813
931261	AB1-176 C	0.0717	Adder	0.08
931262	AB1-176 E	0.1182	Adder	0.14
932161	AC2-023 C	1.3900	Adder	1.64
932162	AC2-023 E	1.0124	Adder	1.19
932361	AC2-050 C O1	0.2218	Adder	0.26
932362	AC2-050 E O1	0.3619	Adder	0.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933631	AC2-185 C	0.8663	Adder	1.02
933632	AC2-185 E	1.4134	Adder	1.66
933641	AC2-186 C	1.0197	Adder	1.2
933642	AC2-186 E	1.6637	Adder	1.96
933962	AD1-019 E	0.5291	Adder	0.62
936501	AD2-065 C	0.1147	50/50	0.1147
936502	AD2-065 E	0.1582	50/50	0.1582
936611	AD2-076 C O1	0.8760	Adder	1.03
936612	AD2-076 E O1	1.4293	Adder	1.68
937011	AD2-135 C	0.0769	50/50	0.0769
937012	AD2-135 E	0.1307	50/50	0.1307
938421	AE1-061 C	0.1645	Adder	0.19
938422	AE1-061 E	0.1645	Adder	0.19
938431	AE1-062 C	1.1100	50/50	1.1100
938651	AE1-087 C	0.8208	Adder	0.97
938652	AE1-087 E	0.2052	Adder	0.24
938781	AE1-104 C O1	9.2410	Adder	10.87
938782	AE1-104 E O1	23.6396	Adder	27.81
938895	AE1-117 C	2.5700	Adder	3.02
938896	AE1-117 E	6.8533	Adder	8.06
939151	AE1-145	1.0576	Adder	1.24
939301	AE1-161 C	1.1426	Adder	1.34
939302	AE1-161 E	1.7139	Adder	2.02
939501	AE1-179 C O1	1.8677	Adder	2.2
939502	AE1-179 E O1	1.3181	Adder	1.55
939821	AE1-218 C O1	0.0531	Adder	0.06
939822	AE1-218 E O1	0.0796	Adder	0.09
940001	AE1-240 C O1	1.5281	Adder	1.8
940002	AE1-240 E O1	1.0907	Adder	1.28
940361	AE2-020 C	7.9889	Adder	9.4
940362	AE2-020 E	37.4044	Adder	44.01
940371	AE2-021 C	7.9889	Adder	9.4
940372	AE2-021 E	37.4044	Adder	44.01
940381	AE2-022 C	4.6602	Adder	5.48
940382	AE2-022 E	21.8192	Adder	25.67
941021	AE2-093 C	0.8293	Adder	0.98
941022	AE2-093 E	1.3530	Adder	1.59
941181	AE2-112 C	0.3039	Adder	0.36
941182	AE2-112 E	0.4959	Adder	0.58
942101	AE2-222 C	5.8685	Adder	6.9
942102	AE2-222 E	15.0160	Adder	17.67
942381	AE2-251 C	25.3085	Adder	29.77
942382	AE2-251 E	64.7575	Adder	76.19
942441	AE2-257 C	1.7674	Adder	2.08
942442	AE2-257 E	4.6596	Adder	5.48
943071	AE2-334 C	1.7384	Adder	2.05
943072	AE2-334 E	1.1590	Adder	1.36
943361	AF1-007 C	0.1019	Adder	0.12
943362	AF1-007 E	0.2897	Adder	0.34
943441	AF1-015 C	0.3125	Adder	0.37
943442	AF1-015 E	0.4315	Adder	0.51
943651	AF1-036 C	0.3952	Adder	0.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943652	AF1-036 E	0.5458	Adder	0.64
943732	AF1-041 E	0.1679	Adder	0.2
944951	AF1-160 C	1.1100	50/50	1.1100
945661	AF1-231 C	0.4017	Adder	0.47
945662	AF1-231 E	0.6026	Adder	0.71
945731	AF1-238 C O1	2.9378	Adder	3.46
945732	AF1-238 E O1	4.4067	Adder	5.18
945741	AF1-239 C	0.6913	Adder	0.81
945742	AF1-239 E	1.0369	Adder	1.22
945791	AF1-244	0.4217	Adder	0.5
945931	AF1-258	0.1682	Adder	0.2
945941	AF1-259	0.0380	Adder	0.04
945971	AF1-262	0.0418	Adder	0.05
945991	AF1-264	0.1419	50/50	0.1419
957221	AF2-016 C	8.3752	Adder	9.85
957222	AF2-016 E	12.5628	Adder	14.78
957251	AF2-019 C	0.5087	Adder	0.6
957252	AF2-019 E	0.7631	Adder	0.9
957261	AF2-020 C	0.3543	Adder	0.42
957262	AF2-020 E	0.5315	Adder	0.63
957271	AF2-021 C	0.3974	Adder	0.47
957272	AF2-021 E	0.5961	Adder	0.7
957311	AF2-025 C	0.5569	Adder	0.66
957312	AF2-025 E	0.8354	Adder	0.98
957611	AF2-055 C	1.8504	Adder	2.18
957612	AF2-055 E	0.7931	Adder	0.93
957661	AF2-060	0.4759	Adder	0.56
957671	AF2-061 O1	2.1151	Adder	2.49
958811	AF2-172 C (Withdrawn : 01/14/2021)	0.1877	Adder	0.22
958812	AF2-172 E (Withdrawn : 01/14/2021)	0.3062	Adder	0.36
958831	AF2-174 C	0.0736	Adder	0.09
958832	AF2-174 E	0.1016	Adder	0.12
959021	AF2-193 C	6.3846	Adder	7.51
959022	AF2-193 E	17.2223	Adder	20.26
959031	AF2-194 C	6.3846	Adder	7.51
959032	AF2-194 E	17.2223	Adder	20.26
959051	AF2-196 C	0.4820	Adder	0.57
959052	AF2-196 E	1.1247	Adder	1.32
959161	AF2-207 C O1	1.0643	Adder	1.25
959162	AF2-207 E O1	1.5965	Adder	1.88
959571	AF2-248 C	0.1794	Adder	0.21
959572	AF2-248 E	0.2005	Adder	0.24
959581	AF2-249 C	0.0317	Adder	0.04
959582	AF2-249 E	0.1266	Adder	0.15
959591	AF2-250 C	0.0580	Adder	0.07
959592	AF2-250 E	0.0449	Adder	0.05
960221	AF2-313 C	0.6028	Adder	0.71
960222	AF2-313 E	0.3417	Adder	0.4
960341	AF2-325 C	0.2162	Adder	0.25
960342	AF2-325 E	0.2986	Adder	0.35
960671	AF2-358 C O1	3.1125	Adder	3.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960672	AF2-358 E O1	2.0750	Adder	2.44
960871	AF2-378 C	0.0572	Adder	0.07
960872	AF2-378 E	0.0794	Adder	0.09
960881	AF2-379 C	0.0864	Adder	0.1
960882	AF2-379 E	0.1190	Adder	0.14
960941	AF2-385 C	2.5235	Adder	2.97
960942	AF2-385 E	1.4360	Adder	1.69
960961	AF2-387 C O1	3.2698	Adder	3.85
960962	AF2-387 E O1	1.6398	Adder	1.93
961181	AF2-409 O1	5.1893	Adder	6.11
961621	AG1-001 C	0.3164	Adder	0.7
961622	AG1-001 E	0.5163	Adder	1.15
962161	AG1-061 C O2	1.8199	Adder	4.04
962162	AG1-061 E O2	1.2133	Adder	2.69
962261	AG1-072	1.3010	Adder	2.89
962302	AG1-079 E	0.0402	Adder	0.09
962381	AG1-087 C O2	3.3929	Adder	7.53
962382	AG1-087 E O2	9.1524	Adder	20.32
962611	AG1-110	2.2200	50/50	2.2200
962801	AG1-129 C O2	0.9671	Adder	2.15
962802	AG1-129 E O2	0.6447	Adder	1.43
963001	AG1-149	0.0838	Adder	0.19
963011	AG1-150	1.1210	Adder	2.49
964083	AG1-263 BAT	2.4812	50/50	2.4812
964371	AG1-299 C	0.0568	Adder	0.13
964372	AG1-299 E	0.0379	Adder	0.08
964381	AG1-300 C	0.0947	Adder	0.21
964382	AG1-300 E	0.0632	Adder	0.14
964551	AG1-318 C	0.0085	Adder	0.02
964552	AG1-318 E	0.0199	Adder	0.04
964962	AG1-360 E	0.2446	Adder	0.54
965321	AG1-397 C	0.1175	Adder	0.26
965322	AG1-397 E	0.1621	Adder	0.36
965611	AG1-429 C O2	0.9880	Adder	2.19
965612	AG1-429 E O2	0.6585	Adder	1.46
965821	AG1-450	0.6867	Adder	1.52
965921	AG1-461 C O2	0.5497	Adder	1.22
965922	AG1-461 E O2	0.2960	Adder	0.66
965951	AG1-464 C O2	0.5689	Adder	1.26
965952	AG1-464 E O2	0.8533	Adder	1.89
966281	AG1-497 C O2	2.5207	Adder	5.6
966282	AG1-497 E O2	1.0803	Adder	2.4
966601	AG1-529 C	1.4020	Adder	3.11
966602	AG1-529 E	0.7483	Adder	1.66
G-007A	G-007A	3.9918	Confirmed LTF	3.9918
VFT	VFT	6.1469	Confirmed LTF	6.1469
CALDERWOOD	CALDERWOOD	0.1834	Confirmed LTF	0.1834
PRAIRIE	PRAIRIE	0.9350	Confirmed LTF	0.9350
CHEOAH	CHEOAH	0.1847	Confirmed LTF	0.1847
CBM-N	CBM-N	0.8976	Confirmed LTF	0.8976
COTTONWOOD	COTTONWOOD	0.7686	Confirmed LTF	0.7686
HAMLET	HAMLET	0.2189	Confirmed LTF	0.2189

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.1966	Confirmed LTF	0.1966
BLUEG	BLUEG	0.6250	Confirmed LTF	0.6250
TRIMBLE	TRIMBLE	0.2003	Confirmed LTF	0.2003
CATAWBA	CATAWBA	0.1316	Confirmed LTF	0.1316

13.5.16 Index 16

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
167820095	231000	CLAY_230	DP&L	214235	LINWOOD84	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	116.83	117.69	DC	17.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.7152	80/20	0.7152
231505	HR4	14.4802	80/20	14.4802
231900	EM5	35.1651	80/20	35.1651
231901	EM4	9.8824	80/20	9.8824
231902	DC CT7	1.6540	80/20	1.6540
231903	GEN4	2.0231	80/20	2.0231
231904	DC1 NUG	5.2417	80/20	5.2417
231905	DC2 NUG	5.2417	80/20	5.2417
231906	DC3 NUG	2.0689	80/20	2.0689
231907	DC10	0.5165	80/20	0.5165
231908	HR1	7.0994	80/20	7.0994
231909	HR2	7.2361	80/20	7.2361
231910	HR3	7.0994	80/20	7.0994
231915	DC CT6	1.5959	80/20	1.5959
231916	EM3	4.9784	80/20	4.9784
231917	EM10	0.8220	80/20	0.8220
231918	WEST 1	0.8696	80/20	0.8696
231919	CHRIST1	1.1869	80/20	1.1869
231920	CHRIST2	1.1817	80/20	1.1817
232416	X2-083	0.1066	80/20	0.1066
232417	X3-008 C	0.1904	80/20	0.1904
232422	X3-066 C	0.0606	80/20	0.0606
232424	Y1-079 C	0.1004	80/20	0.1004
232426	Y1-080 FULL	0.0317	80/20	0.0317
232902	EASTMUNI	1.7957	80/20	1.7957
232907	VN8	3.7965	80/20	3.7965
232922	MR3 (Deactivation : 01/06/2021)	11.7756	Adder	13.85
233915	AB1-141 C	0.3625	80/20	0.3625
233918	AB1-142 C	0.3625	80/20	0.3625
233931	AB2-179 C	6.8286	80/20	6.8286
919831	AA2-069 (Suspended)	52.0666	Adder	61.25
923921	AB2-032 C	2.3149	80/20	2.3149
923951	AB2-036 C	5.8527	80/20	5.8527
923961	AB2-037 C	12.8680	80/20	12.8680
924681	AB2-120 C	4.9322	Adder	5.8
924781	AB2-130 C O1	4.1636	Adder	4.9
924801	AB2-133 C O1	4.1608	80/20	4.1608
924821	AB2-135 C	4.9081	80/20	4.9081

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	3.9139	80/20	3.9139
924971	AB2-153 C	1.2936	80/20	1.2936
925151	AB2-172 C	3.0178	80/20	3.0178
925261	AB2-180 C	1.8322	Adder	2.16
925271	AB2-185 C	2.3444	80/20	2.3444
926131	AC1-091 C	0.8511	Adder	1.0
926141	AC1-092 C	0.8511	Adder	1.0
926151	AC1-093 C	0.8057	Adder	0.95
926161	AC1-094 C	0.6809	Adder	0.8
927031	AC1-190 C	5.5527	80/20	5.5527
927191	AC1-213 C	0.4169	Adder	0.49
930201	AB1-056 C	8.1667	Adder	9.61
931261	AB1-176 C	0.2542	80/20	0.2542
932161	AC2-023 C	3.4788	Adder	4.09
933631	AC2-185 C	1.7249	Adder	2.03
933641	AC2-186 C	2.3844	Adder	2.81
936451	AD2-059 C	0.0581	80/20	0.0581
936611	AD2-076 C O1	3.1574	80/20	3.1574
938651	AE1-087 C	2.5413	80/20	2.5413
938814	AE1-107 C	5.7390	80/20	5.7390
938896	AE1-117 E	16.2819	Adder	19.16
939151	AE1-145	2.5959	Adder	3.05
941021	AE2-093 C	2.7685	80/20	2.7685
941181	AE2-112 C	1.0954	80/20	1.0954
942441	AE2-257 C	4.1954	Adder	4.94
943361	AF1-007 C	0.2409	Adder	0.28
943441	AF1-015 C	1.0432	80/20	1.0432
943651	AF1-036 C	1.4244	80/20	1.4244
945661	AF1-231 C	0.9868	Adder	1.16
945791	AF1-244	1.0434	Adder	1.23
945931	AF1-258	0.4188	Adder	0.49
945941	AF1-259	0.1347	80/20	0.1347
957611	AF2-055 C	4.5443	Adder	5.35
957661	AF2-060	1.1682	Adder	1.37
957671	AF2-061 O1	5.1918	Adder	6.11
959021	AF2-193 C	15.0906	Adder	17.75
959031	AF2-194 C	15.0906	Adder	17.75
959051	AF2-196 C	1.1442	Adder	1.35
959161	AF2-207 C O1	2.6211	Adder	3.08
959571	AF2-248 C	0.4424	Adder	0.52
959581	AF2-249 C	0.0781	Adder	0.09
959591	AF2-250 C	0.1431	Adder	0.17
960221	AF2-313 C	2.1379	80/20	2.1379
960341	AF2-325 C	0.6644	80/20	0.6644
960671	AF2-358 C O1	7.9968	Adder	9.41
960871	AF2-378 C	0.1754	80/20	0.1754
960881	AF2-379 C	0.2141	Adder	0.25
960941	AF2-385 C	6.2148	Adder	7.31
960961	AF2-387 C O1	11.0976	80/20	11.0976
961181	AF2-409 O1	15.7280	80/20	15.7280
962161	AG1-061 C O2	4.5819	Adder	10.17
962261	AG1-072	8.3315	80/20	8.3315

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962381	AG1-087 C O2	7.9674	Adder	17.69
963001	AG1-149	0.2074	Adder	0.46
963011	AG1-150	2.7517	Adder	6.11
964551	AG1-318 C	0.0202	Adder	0.04
965321	AG1-397 C	0.2877	Adder	0.64
965611	AG1-429 C O2	2.4264	Adder	5.39
965821	AG1-450	1.7678	Adder	3.92
965921	AG1-461 C O2	1.3273	Adder	2.95
965951	AG1-464 C O2	1.3302	Adder	2.95
966281	AG1-497 C O2	5.1397	Adder	11.41
966601	AG1-529 C	3.2341	Adder	7.18
WEC	WEC	0.0293	Confirmed LTF	0.0293
LGEE	LGEE	0.0616	Confirmed LTF	0.0616
CPL	CPL	0.1317	Confirmed LTF	0.1317
CBM-W2	CBM-W2	1.0035	Confirmed LTF	1.0035
NY	NY	0.9722	Confirmed LTF	0.9722
TVA	TVA	0.1750	Confirmed LTF	0.1750
SIGE	SIGE	0.2581	Confirmed LTF	0.2581
CBM-S2	CBM-S2	1.7957	Confirmed LTF	1.7957
CBM-S1	CBM-S1	0.0456	Confirmed LTF	0.0456
MEC	MEC	0.1589	Confirmed LTF	0.1589
LAGN	LAGN	0.2135	Confirmed LTF	0.2135
CBM-W1	CBM-W1	1.2057	Confirmed LTF	1.2057

13.5.17 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
167820126	231001	EDGE MR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	115.73	116.5	DC	15.75

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.5930	80/20	0.5930
231505	HR4	14.4571	80/20	14.4571
231900	EM5	35.1090	80/20	35.1090
231901	EM4	7.4274	80/20	7.4274
231902	DC CT7	1.3816	80/20	1.3816
231903	GEN4	1.6899	80/20	1.6899
231904	DC1 NUG	4.3785	80/20	4.3785
231905	DC2 NUG	4.3785	80/20	4.3785
231906	DC3 NUG	1.7282	80/20	1.7282
231907	DC10	0.4314	80/20	0.4314
231908	HR1	5.3358	80/20	5.3358
231909	HR2	4.0553	80/20	4.0553
231910	HR3	5.3358	80/20	5.3358
231915	DC CT6	1.3331	80/20	1.3331
231916	EM3	2.7900	80/20	2.7900
231917	EM10	0.4607	80/20	0.4607
231918	WEST 1	0.5738	80/20	0.5738
231919	CHRIST1	0.9021	80/20	0.9021
231920	CHRIST2	0.8982	80/20	0.8982
232416	X2-083	0.0906	80/20	0.0906
232417	X3-008 C	0.1693	80/20	0.1693
232422	X3-066 C	0.0529	80/20	0.0529
232424	Y1-079 C	0.0884	80/20	0.0884
232426	Y1-080 FULL	0.0282	80/20	0.0282
232902	EASTMUNI	1.5909	80/20	1.5909
232907	VN8	3.3835	80/20	3.3835
232922	MR3 (Deactivation : 01/06/2021)	10.4742	Adder	12.32
233915	AB1-141 C	0.3158	80/20	0.3158
233918	AB1-142 C	0.3158	80/20	0.3158
233931	AB2-179 C	5.7942	80/20	5.7942
919831	AA2-069 (Suspended)	46.3125	Adder	54.49
923921	AB2-032 C	2.0163	80/20	2.0163
923951	AB2-036 C	5.1593	80/20	5.1593
923961	AB2-037 C	11.5150	80/20	11.5150
924681	AB2-120 C	4.3928	Adder	5.17
924781	AB2-130 C O1	3.7053	Adder	4.36
924801	AB2-133 C O1	3.6160	80/20	3.6160
924821	AB2-135 C	4.2799	80/20	4.2799

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	3.4814	80/20	3.4814
924971	AB2-153 C	1.1268	80/20	1.1268
925151	AB2-172 C	2.6828	80/20	2.6828
925261	AB2-180 C	1.6315	Adder	1.92
925271	AB2-185 C	2.0639	80/20	2.0639
926131	AC1-091 C	0.7555	Adder	0.89
926141	AC1-092 C	0.7555	Adder	0.89
926151	AC1-093 C	0.7152	Adder	0.84
926161	AC1-094 C	0.6044	Adder	0.71
927031	AC1-190 C	4.9371	80/20	4.9371
927191	AC1-213 C	0.3712	Adder	0.44
930201	AB1-056 C	7.2711	Adder	8.55
931261	AB1-176 C	0.2223	80/20	0.2223
932161	AC2-023 C	3.0974	Adder	3.64
933631	AC2-185 C	1.5311	Adder	1.8
933641	AC2-186 C	2.1148	Adder	2.49
936451	AD2-059 C	0.0489	80/20	0.0489
936611	AD2-076 C O1	2.7574	80/20	2.7574
938651	AE1-087 C	2.2592	80/20	2.2592
938814	AE1-107 C	4.7966	80/20	4.7966
938896	AE1-117 E	14.4965	Adder	17.05
939151	AE1-145	2.3122	Adder	2.72
941021	AE2-093 C	2.4575	80/20	2.4575
941181	AE2-112 C	0.9567	80/20	0.9567
942441	AE2-257 C	3.7354	Adder	4.39
943361	AF1-007 C	0.2145	Adder	0.25
943441	AF1-015 C	0.9260	80/20	0.9260
943651	AF1-036 C	1.2440	80/20	1.2440
945661	AF1-231 C	0.8789	Adder	1.03
945791	AF1-244	0.9294	Adder	1.09
945931	AF1-258	0.3729	Adder	0.44
945941	AF1-259	0.1178	80/20	0.1178
957611	AF2-055 C	4.0475	Adder	4.76
957661	AF2-060	1.0405	Adder	1.22
957671	AF2-061 O1	4.6243	Adder	5.44
959021	AF2-193 C	13.4358	Adder	15.81
959031	AF2-194 C	13.4358	Adder	15.81
959051	AF2-196 C	1.0188	Adder	1.2
959161	AF2-207 C O1	2.3338	Adder	2.75
959571	AF2-248 C	0.3939	Adder	0.46
959581	AF2-249 C	0.0695	Adder	0.08
959591	AF2-250 C	0.1274	Adder	0.15
960221	AF2-313 C	1.8694	80/20	1.8694
960341	AF2-325 C	0.5908	80/20	0.5908
960671	AF2-358 C O1	7.1176	Adder	8.37
960871	AF2-378 C	0.1560	80/20	0.1560
960881	AF2-379 C	0.1907	Adder	0.22
960941	AF2-385 C	5.5334	Adder	6.51
960961	AF2-387 C O1	9.8248	80/20	9.8248
961181	AF2-409 O1	14.0170	80/20	14.0170
962161	AG1-061 C O2	4.0824	Adder	9.06
962261	AG1-072	7.3760	80/20	7.3760

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962381	AG1-087 C O2	7.0952	Adder	15.75
963001	AG1-149	0.1847	Adder	0.41
963011	AG1-150	2.4509	Adder	5.44
964551	AG1-318 C	0.0180	Adder	0.04
965321	AG1-397 C	0.2562	Adder	0.57
965611	AG1-429 C O2	2.1611	Adder	4.8
965821	AG1-450	1.5733	Adder	3.49
965921	AG1-461 C O2	1.1814	Adder	2.62
965951	AG1-464 C O2	1.1799	Adder	2.62
966281	AG1-497 C O2	4.5717	Adder	10.15
966601	AG1-529 C	2.8764	Adder	6.38
WEC	WEC	0.0299	Confirmed LTF	0.0299
LGEE	LGEE	0.0622	Confirmed LTF	0.0622
CPL	CPL	0.1256	Confirmed LTF	0.1256
CBM-W2	CBM-W2	1.0035	Confirmed LTF	1.0035
NY	NY	0.8610	Confirmed LTF	0.8610
TVA	TVA	0.1722	Confirmed LTF	0.1722
SIGE	SIGE	0.2303	Confirmed LTF	0.2303
CBM-S2	CBM-S2	1.7226	Confirmed LTF	1.7226
CBM-S1	CBM-S1	0.0452	Confirmed LTF	0.0452
MEC	MEC	0.1605	Confirmed LTF	0.1605
LAGN	LAGN	0.2118	Confirmed LTF	0.2118
CBM-W1	CBM-W1	1.2478	Confirmed LTF	1.2478

13.5.18 Index 18

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
175196561	231001	EDGEMR 5	DP&L	214236	LINWOOD85	PECO	1	DPL_P1_2_CKT 23015	single	804.0	114.96	115.73	DC	15.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.5940	80/20	0.5940
231505	HR4	14.3592	80/20	14.3592
231900	EM5	34.8712	80/20	34.8712
231901	EM4	7.4779	80/20	7.4779
231902	DC CT7	1.3834	80/20	1.3834
231903	GEN4	1.6921	80/20	1.6921
231904	DC1 NUG	4.3842	80/20	4.3842
231905	DC2 NUG	4.3842	80/20	4.3842
231906	DC3 NUG	1.7304	80/20	1.7304
231907	DC10	0.4320	80/20	0.4320
231908	HR1	5.3720	80/20	5.3720
231909	HR2	4.1588	80/20	4.1588
231910	HR3	5.3720	80/20	5.3720
231915	DC CT6	1.3348	80/20	1.3348
231916	EM3	2.8613	80/20	2.8613
231917	EM10	0.4724	80/20	0.4724
231918	WEST 1	0.5821	80/20	0.5821
231919	CHRIST1	0.9077	80/20	0.9077
231920	CHRIST2	0.9037	80/20	0.9037
232416	X2-083	0.0907	80/20	0.0907
232417	X3-008 C	0.1690	80/20	0.1690
232422	X3-066 C	0.0529	80/20	0.0529
232424	Y1-079 C	0.0883	80/20	0.0883
232426	Y1-080 FULL	0.0282	80/20	0.0282
232902	EASTMUNI	1.5885	80/20	1.5885
232907	VN8	3.3775	80/20	3.3775
232922	MR3 (Deactivation : 01/06/2021)	10.4560	Adder	12.3
233915	AB1-141 C	0.3155	80/20	0.3155
233918	AB1-142 C	0.3155	80/20	0.3155
233931	AB2-179 C	5.7973	80/20	5.7973
919831	AA2-069 (Suspended)	46.2320	Adder	54.39
923921	AB2-032 C	2.0148	80/20	2.0148
923951	AB2-036 C	5.1526	80/20	5.1526
923961	AB2-037 C	11.4920	80/20	11.4920
924681	AB2-120 C	4.3854	Adder	5.16
924781	AB2-130 C O1	3.6990	Adder	4.35
924801	AB2-133 C O1	3.6137	80/20	3.6137
924821	AB2-135 C	4.2766	80/20	4.2766
924831	AB2-136 C	3.4755	80/20	3.4755
924971	AB2-153 C	1.1259	80/20	1.1259
925151	AB2-172 C	2.6784	80/20	2.6784

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925261	AB2-180 C	1.6286	Adder	1.92
925271	AB2-185 C	2.0614	80/20	2.0614
926131	AC1-091 C	0.7543	Adder	0.89
926141	AC1-092 C	0.7543	Adder	0.89
926151	AC1-093 C	0.7141	Adder	0.84
926161	AC1-094 C	0.6034	Adder	0.71
927031	AC1-190 C	4.9287	80/20	4.9287
927191	AC1-213 C	0.3706	Adder	0.44
930201	AB1-056 C	7.2585	Adder	8.54
931261	AB1-176 C	0.2221	80/20	0.2221
932161	AC2-023 C	3.0920	Adder	3.64
933631	AC2-185 C	1.5287	Adder	1.8
933641	AC2-186 C	2.1115	Adder	2.48
936451	AD2-059 C	0.0489	80/20	0.0489
936611	AD2-076 C O1	2.7552	80/20	2.7552
938651	AE1-087 C	2.2555	80/20	2.2555
938814	AE1-107 C	4.8028	80/20	4.8028
938896	AE1-117 E	14.4715	Adder	17.03
939151	AE1-145	2.3081	Adder	2.72
941021	AE2-093 C	2.4535	80/20	2.4535
941181	AE2-112 C	0.9559	80/20	0.9559
942441	AE2-257 C	3.7290	Adder	4.39
943361	AF1-007 C	0.2141	Adder	0.25
943441	AF1-015 C	0.9245	80/20	0.9245
943651	AF1-036 C	1.2429	80/20	1.2429
945661	AF1-231 C	0.8774	Adder	1.03
945791	AF1-244	0.9278	Adder	1.09
945931	AF1-258	0.3723	Adder	0.44
945941	AF1-259	0.1176	80/20	0.1176
957611	AF2-055 C	4.0403	Adder	4.75
957661	AF2-060	1.0386	Adder	1.22
957671	AF2-061 O1	4.6162	Adder	5.43
959021	AF2-193 C	13.4125	Adder	15.78
959031	AF2-194 C	13.4125	Adder	15.78
959051	AF2-196 C	1.0170	Adder	1.2
959161	AF2-207 C O1	2.3298	Adder	2.74
959571	AF2-248 C	0.3932	Adder	0.46
959581	AF2-249 C	0.0694	Adder	0.08
959591	AF2-250 C	0.1272	Adder	0.15
960221	AF2-313 C	1.8677	80/20	1.8677
960341	AF2-325 C	0.5898	80/20	0.5898
960671	AF2-358 C O1	7.1053	Adder	8.36
960871	AF2-378 C	0.1557	80/20	0.1557
960881	AF2-379 C	0.1904	Adder	0.22
960941	AF2-385 C	5.5241	Adder	6.5
960961	AF2-387 C O1	9.8102	80/20	9.8102
961181	AF2-409 O1	13.9920	80/20	13.9920
962161	AG1-061 C O2	4.0750	Adder	9.05
962261	AG1-072	7.3650	80/20	7.3650
962381	AG1-087 C O2	7.0829	Adder	15.72
963001	AG1-149	0.1844	Adder	0.41
963011	AG1-150	2.4466	Adder	5.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964551	AG1-318 C	0.0180	Adder	0.04
965321	AG1-397 C	0.2557	Adder	0.57
965611	AG1-429 C O2	2.1573	Adder	4.79
965821	AG1-450	1.5706	Adder	3.49
965921	AG1-461 C O2	1.1794	Adder	2.62
965951	AG1-464 C O2	1.1780	Adder	2.61
966281	AG1-497 C O2	4.5637	Adder	10.13
966601	AG1-529 C	2.8713	Adder	6.37
WEC	WEC	0.0299	Confirmed LTF	0.0299
LGEE	LGEE	0.0622	Confirmed LTF	0.0622
CPL	CPL	0.1256	Confirmed LTF	0.1256
CBM-W2	CBM-W2	1.0035	Confirmed LTF	1.0035
NY	NY	0.8594	Confirmed LTF	0.8594
TVA	TVA	0.1722	Confirmed LTF	0.1722
SIGE	SIGE	0.2297	Confirmed LTF	0.2297
CBM-S2	CBM-S2	1.7226	Confirmed LTF	1.7226
CBM-S1	CBM-S1	0.0452	Confirmed LTF	0.0452
MEC	MEC	0.1605	Confirmed LTF	0.1605
LAGN	LAGN	0.2118	Confirmed LTF	0.2118
CBM-W1	CBM-W1	1.2478	Confirmed LTF	1.2478

13.5.19 Index 19

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 IMPAC T
174170112	231002	HARMONY	DP&L	231001	EDGEM R 5	DP&L	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	924.0	110.87	115.59	DC	97.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200062	SALEM G3	3.8757	Adder	4.56
231903	GEN4	1.7617	Adder	2.07
231904	DC1 NUG	4.5645	Adder	5.37
231905	DC2 NUG	4.5645	Adder	5.37
232404	W1-003 C	0.4759	50/50	0.4759
232405	W1-003 E	2.7998	50/50	2.7998
232406	W1-004 C	0.4759	50/50	0.4759
232407	W1-004 E	2.7998	50/50	2.7998
232408	W1-005 C	0.4759	50/50	0.4759
232409	W1-005 E	2.7998	50/50	2.7998
232410	W1-006 C	0.4759	50/50	0.4759
232411	W1-006 E	2.7998	50/50	2.7998
232412	X1-032 E	0.9051	50/50	0.9051
232416	X2-083	0.1041	50/50	0.1041
232417	X3-008 C	0.2746	50/50	0.2746
232418	X3-008 E	2.8400	50/50	2.8400
232423	X3-066 E	0.5486	Adder	0.65
232424	Y1-079 C	0.1359	50/50	0.1359
232425	Y1-079 E	1.4058	50/50	1.4058
232426	Y1-080 FULL	0.0461	50/50	0.0461
232427	Y1-080 E	0.4798	50/50	0.4798
232428	Y3-058 C	0.2037	50/50	0.2037
232429	Y3-058 E	1.3817	50/50	1.3817
232433	Z2-076 E	0.3816	Adder	0.45
232435	Z2-077 E	0.3816	Adder	0.45
232851	DUP-SFR1	1.8896	Adder	2.22
232902	EASTMUNI	2.5127	50/50	2.5127
232907	VN8	5.5521	50/50	5.5521
232915	OH NUG4	1.2903	50/50	1.2903
232916	OH NUG5	1.2903	50/50	1.2903
232919	VN10	0.4146	50/50	0.4146
232922	MR3 (Deactivation : 01/06/2021)	18.2790	Adder	21.5
232926	CRISFLD1	0.3572	50/50	0.3572
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.3410	Adder	0.4
233916	AB1-141 E	1.1714	Adder	1.38
233919	AB1-142 E	1.1714	Adder	1.38
233923	AA1-102 C	2.0360	50/50	2.0360
233931	AB2-179 C	6.4435	Adder	7.58
293670	O-025 C	0.2139	50/50	0.2139

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
917082	CHERRYDALE E	2.3795	Adder	2.8
918835	AA1-102 E	21.0552	50/50	21.0552
919831	AA2-069 (Suspended)	80.8217	Adder	95.08
923921	AB2-032 C	2.5286	Adder	2.97
923922	AB2-032 E	1.1899	Adder	1.4
923951	AB2-036 C	7.9642	50/50	7.9642
923952	AB2-036 E	13.0302	50/50	13.0302
923961	AB2-037 C	18.6005	50/50	18.6005
923962	AB2-037 E	30.3865	50/50	30.3865
924681	AB2-120 C	7.2904	Adder	8.58
924682	AB2-120 E	11.8949	Adder	13.99
924781	AB2-130 C O1	6.1549	Adder	7.24
924782	AB2-130 E O1	10.0421	Adder	11.81
924801	AB2-133 C O1	4.5130	Adder	5.31
924802	AB2-133 E O1	5.7238	Adder	6.73
924821	AB2-135 C	5.4777	Adder	6.44
924822	AB2-135 E	6.2471	Adder	7.35
924831	AB2-136 C	5.6725	50/50	5.6725
924832	AB2-136 E	6.0156	50/50	6.0156
924971	AB2-153 C	1.4131	Adder	1.66
924972	AB2-153 E	2.3055	Adder	2.71
925151	AB2-172 C	4.3516	50/50	4.3516
925152	AB2-172 E	7.0999	50/50	7.0999
925254	AB2-179 E	2.1026	Adder	2.47
925261	AB2-180 C	3.1711	50/50	3.1711
925262	AB2-180 E	1.3591	50/50	1.3591
925271	AB2-185 C	3.1744	50/50	3.1744
925272	AB2-185 E	1.3604	50/50	1.3604
926131	AC1-091 C	1.3226	Adder	1.56
926132	AC1-091 E	2.1691	Adder	2.55
926141	AC1-092 C	1.3226	Adder	1.56
926142	AC1-092 E	2.1691	Adder	2.55
926151	AC1-093 C	1.2521	Adder	1.47
926152	AC1-093 E	2.0633	Adder	2.43
926161	AC1-094 C	1.0581	Adder	1.24
926162	AC1-094 E	1.7459	Adder	2.05
927031	AC1-190 C	8.0143	50/50	8.0143
927032	AC1-190 E	3.4347	50/50	3.4347
927191	AC1-213 C	0.7232	50/50	0.7232
927192	AC1-213 E	0.4746	50/50	0.4746
930201	AB1-056 C	12.1829	Adder	14.33
930202	AB1-056 E	34.6949	Adder	40.82
931261	AB1-176 C	0.2837	Adder	0.33
931262	AB1-176 E	0.4679	Adder	0.55
932161	AC2-023 C	6.0118	50/50	6.0118
932162	AC2-023 E	4.3784	50/50	4.3784
933631	AC2-185 C	2.6805	Adder	3.15
933632	AC2-185 E	4.3735	Adder	5.15
933641	AC2-186 C	3.5218	Adder	4.14
933642	AC2-186 E	5.7461	Adder	6.76
936451	AD2-059 C	0.0551	50/50	0.0551
936452	AD2-059 E	0.1728	50/50	0.1728

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936611	AD2-076 C O1	3.4941	Adder	4.11
936612	AD2-076 E O1	5.7009	Adder	6.71
938651	AE1-087 C	3.6645	50/50	3.6645
938652	AE1-087 E	0.9161	50/50	0.9161
938814	AE1-107 C	4.9591	Adder	5.83
938815	AE1-107 E	3.5353	Adder	4.16
938895	AE1-117 C	9.0939	Adder	10.7
938896	AE1-117 E	24.2504	Adder	28.53
939151	AE1-145	3.8371	Adder	4.51
941021	AE2-093 C	3.8968	50/50	3.8968
941022	AE2-093 E	6.3579	50/50	6.3579
941181	AE2-112 C	1.2122	Adder	1.43
941182	AE2-112 E	1.9779	Adder	2.33
942441	AE2-257 C	6.2504	Adder	7.35
942442	AE2-257 E	16.4783	Adder	19.39
943361	AF1-007 C	0.3594	Adder	0.42
943362	AF1-007 E	1.0216	Adder	1.2
943441	AF1-015 C	1.4683	50/50	1.4683
943442	AF1-015 E	2.0276	50/50	2.0276
943651	AF1-036 C	1.5763	Adder	1.85
943652	AF1-036 E	2.1768	Adder	2.56
945661	AF1-231 C	1.4585	Adder	1.72
945662	AF1-231 E	2.1877	Adder	2.57
945791	AF1-244	1.8112	50/50	1.8112
945931	AF1-258	0.7248	50/50	0.7248
945941	AF1-259	0.1503	Adder	0.18
957611	AF2-055 C	6.7164	Adder	7.9
957612	AF2-055 E	2.8784	Adder	3.39
957661	AF2-060	1.7267	Adder	2.03
957671	AF2-061 O1	7.6741	Adder	9.03
959021	AF2-193 C	22.5119	Adder	26.48
959022	AF2-193 E	60.7255	Adder	71.44
959031	AF2-194 C	22.5119	Adder	26.48
959032	AF2-194 E	60.7255	Adder	71.44
959051	AF2-196 C	1.7046	Adder	2.01
959052	AF2-196 E	3.9775	Adder	4.68
959161	AF2-207 C O1	3.8671	Adder	4.55
959162	AF2-207 E O1	5.8006	Adder	6.82
959571	AF2-248 C	0.7677	50/50	0.7677
959572	AF2-248 E	0.8580	50/50	0.8580
959581	AF2-249 C	0.1355	50/50	0.1355
959582	AF2-249 E	0.5419	50/50	0.5419
959591	AF2-250 C	0.2484	50/50	0.2484
959592	AF2-250 E	0.1919	50/50	0.1919
960221	AF2-313 C	2.3862	Adder	2.81
960222	AF2-313 E	1.3528	Adder	1.59
960341	AF2-325 C	0.9611	50/50	0.9611
960342	AF2-325 E	1.3273	50/50	1.3273
960671	AF2-358 C O1	13.7064	50/50	13.7064
960672	AF2-358 E O1	9.1376	50/50	9.1376
960871	AF2-378 C	0.2539	50/50	0.2539
960872	AF2-378 E	0.3523	50/50	0.3523

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.3714	50/50	0.3714
960882	AF2-379 E	0.5118	50/50	0.5118
960941	AF2-385 C	9.1690	Adder	10.79
960942	AF2-385 E	5.2175	Adder	6.14
960961	AF2-387 C O1	15.4146	50/50	15.4146
960962	AF2-387 E O1	7.7304	50/50	7.7304
961181	AF2-409 O1	23.0010	50/50	23.0010
962161	AG1-061 C O2	14.9476	50/50	14.9476
962162	AG1-061 E O2	9.9651	50/50	9.9651
962261	AG1-072	11.5725	50/50	11.5725
962302	AG1-079 E	0.1453	Adder	0.32
962381	AG1-087 C O2	11.9163	Adder	26.45
962382	AG1-087 E O2	32.1440	Adder	71.35
963001	AG1-149	0.6792	50/50	0.6792
963011	AG1-150	4.0673	Adder	9.03
964551	AG1-318 C	0.0301	Adder	0.07
964552	AG1-318 E	0.0703	Adder	0.16
964962	AG1-360 E	1.9800	50/50	1.9800
965321	AG1-397 C	0.4252	Adder	0.94
965322	AG1-397 E	0.5865	Adder	1.3
965611	AG1-429 C O2	3.5861	Adder	7.96
965612	AG1-429 E O2	2.3901	Adder	5.31
965821	AG1-450	5.7120	50/50	5.7120
965921	AG1-461 C O2	1.9660	Adder	4.36
965922	AG1-461 E O2	1.0586	Adder	2.35
965951	AG1-464 C O2	1.9648	Adder	4.36
965952	AG1-464 E O2	2.9472	Adder	6.54
966281	AG1-497 C O2	7.9782	Adder	17.71
966282	AG1-497 E O2	3.4192	Adder	7.59
966601	AG1-529 C	4.8392	Adder	10.74
966602	AG1-529 E	2.5829	Adder	5.73
G-007A	G-007A	3.3493	Confirmed LTF	3.3493
VFT	VFT	6.5984	Confirmed LTF	6.5984
CALDERWOOD	CALDERWOOD	0.3330	Confirmed LTF	0.3330
PRAIRIE	PRAIRIE	1.7074	Confirmed LTF	1.7074
CHEOAH	CHEOAH	0.3353	Confirmed LTF	0.3353
CBM-N	CBM-N	0.8100	Confirmed LTF	0.8100
COTTONWOOD	COTTONWOOD	1.3986	Confirmed LTF	1.3986
HAMLET	HAMLET	0.3950	Confirmed LTF	0.3950
GIBSON	GIBSON	0.3593	Confirmed LTF	0.3593
BLUEG	BLUEG	1.1423	Confirmed LTF	1.1423
TRIMBLE	TRIMBLE	0.3662	Confirmed LTF	0.3662
CATAWBA	CATAWBA	0.2377	Confirmed LTF	0.2377

13.5.20 Index 20

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174170133	232000	STEELE	DP&L	923960	AB2-037 TAP	DP&L	2	DPL_P4-2_DP8	breaker	727.0	102.21	109.53	DC	119.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.6446	50/50	0.6446
232405	W1-003 E	3.7922	50/50	3.7922
232406	W1-004 C	0.6446	50/50	0.6446
232407	W1-004 E	3.7922	50/50	3.7922
232408	W1-005 C	0.6446	50/50	0.6446
232409	W1-005 E	3.7922	50/50	3.7922
232410	W1-006 C	0.6446	50/50	0.6446
232411	W1-006 E	3.7922	50/50	3.7922
232412	X1-032 E	1.2425	50/50	1.2425
232417	X3-008 C	0.4049	50/50	0.4049
232418	X3-008 E	4.1875	50/50	4.1875
232423	X3-066 E	0.7039	Adder	0.83
232424	Y1-079 C	0.1955	50/50	0.1955
232425	Y1-079 E	2.0223	50/50	2.0223
232426	Y1-080 FULL	0.0671	50/50	0.0671
232427	Y1-080 E	0.6980	50/50	0.6980
232428	Y3-058 C	0.2815	50/50	0.2815
232429	Y3-058 E	1.9095	50/50	1.9095
232433	Z2-076 E	0.4814	Adder	0.57
232435	Z2-077 E	0.4814	Adder	0.57
232851	DUP-SFR1	2.3176	Adder	2.73
232902	EASTMUNI	3.8654	50/50	3.8654
232907	VN8	8.3860	50/50	8.3860
232915	OH NUG4	1.7464	50/50	1.7464
232916	OH NUG5	1.7464	50/50	1.7464
232919	VN10	0.6007	50/50	0.6007
232922	MR3 (Deactivation : 01/06/2021)	13.6301	Adder	16.04
232926	CRISFLD1	0.4919	50/50	0.4919
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.4243	Adder	0.5
233916	AB1-141 E	1.4376	Adder	1.69
233919	AB1-142 E	1.4376	Adder	1.69
233923	AA1-102 C	2.8040	50/50	2.8040
233931	AB2-179 C	4.3272	Adder	5.09
293670	O-025 C	0.2914	50/50	0.2914
917082	CHERRYDALE E	3.2200	Adder	3.79
918835	AA1-102 E	28.9974	50/50	28.9974
919831	AA2-069 (Suspended)	60.2665	Adder	70.9
923921	AB2-032 C	3.1034	Adder	3.65
923922	AB2-032 E	1.4604	Adder	1.72
923951	AB2-036 C	11.7746	50/50	11.7746

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	19.2644	50/50	19.2644
924681	AB2-120 C	9.8534	Adder	11.59
924682	AB2-120 E	16.0767	Adder	18.91
924781	AB2-130 C O1	7.9757	Adder	9.38
924782	AB2-130 E O1	13.0129	Adder	15.31
924801	AB2-133 C O1	5.1135	Adder	6.02
924802	AB2-133 E O1	6.4855	Adder	7.63
924821	AB2-135 C	5.9789	Adder	7.03
924822	AB2-135 E	6.8187	Adder	8.02
924831	AB2-136 C	8.3033	50/50	8.3033
924832	AB2-136 E	8.8055	50/50	8.8055
924971	AB2-153 C	1.7343	Adder	2.04
924972	AB2-153 E	2.8296	Adder	3.33
925151	AB2-172 C	6.4163	50/50	6.4163
925152	AB2-172 E	10.4687	50/50	10.4687
925254	AB2-179 E	1.4120	Adder	1.66
925261	AB2-180 C	4.3826	50/50	4.3826
925262	AB2-180 E	1.8782	50/50	1.8782
925271	AB2-185 C	4.5664	50/50	4.5664
925272	AB2-185 E	1.9570	50/50	1.9570
926131	AC1-091 C	0.8017	Adder	0.94
926132	AC1-091 E	1.3147	Adder	1.55
926141	AC1-092 C	0.8017	Adder	0.94
926142	AC1-092 E	1.3147	Adder	1.55
926151	AC1-093 C	0.7589	Adder	0.89
926152	AC1-093 E	1.2506	Adder	1.47
926161	AC1-094 C	0.6413	Adder	0.75
926162	AC1-094 E	1.0582	Adder	1.24
927031	AC1-190 C	11.8017	50/50	11.8017
927032	AC1-190 E	5.0579	50/50	5.0579
927191	AC1-213 C	0.9852	50/50	0.9852
927192	AC1-213 E	0.6465	50/50	0.6465
930201	AB1-056 C	14.9955	Adder	17.64
930202	AB1-056 E	42.7045	Adder	50.24
931261	AB1-176 C	0.3640	Adder	0.43
931262	AB1-176 E	0.6003	Adder	0.71
932161	AC2-023 C	8.3870	50/50	8.3870
932162	AC2-023 E	6.1083	50/50	6.1083
933631	AC2-185 C	1.6247	Adder	1.91
933632	AC2-185 E	2.6508	Adder	3.12
933641	AC2-186 C	3.7806	Adder	4.45
933642	AC2-186 E	6.1683	Adder	7.26
936611	AD2-076 C O1	4.4808	Adder	5.27
936612	AD2-076 E O1	7.3107	Adder	8.6
938651	AE1-087 C	5.4032	50/50	5.4032
938652	AE1-087 E	1.3508	50/50	1.3508
938895	AE1-117 C	11.3167	Adder	13.31
938896	AE1-117 E	30.1779	Adder	35.5
939151	AE1-145	5.1860	Adder	6.1
941021	AE2-093 C	6.2235	50/50	6.2235
941022	AE2-093 E	10.1542	50/50	10.1542
941181	AE2-112 C	1.5546	Adder	1.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941182	AE2-112 E	2.5364	Adder	2.98
942441	AE2-257 C	7.7617	Adder	9.13
942442	AE2-257 E	20.4627	Adder	24.07
943361	AF1-007 C	0.4424	Adder	0.52
943362	AF1-007 E	1.2574	Adder	1.48
943441	AF1-015 C	2.3450	50/50	2.3450
943442	AF1-015 E	3.2383	50/50	3.2383
943651	AF1-036 C	2.0214	Adder	2.38
943652	AF1-036 E	2.7915	Adder	3.28
945661	AF1-231 C	1.9741	Adder	2.32
945662	AF1-231 E	2.9612	Adder	3.48
945791	AF1-244	2.4944	50/50	2.4944
945931	AF1-258	1.0017	50/50	1.0017
945941	AF1-259	0.1929	Adder	0.23
957611	AF2-055 C	9.0886	Adder	10.69
957612	AF2-055 E	3.8951	Adder	4.58
957661	AF2-060	2.3337	Adder	2.75
957671	AF2-061 O1	10.3720	Adder	12.2
959021	AF2-193 C	27.7090	Adder	32.6
959022	AF2-193 E	74.7445	Adder	87.93
959031	AF2-194 C	27.7090	Adder	32.6
959032	AF2-194 E	74.7445	Adder	87.93
959051	AF2-196 C	2.1168	Adder	2.49
959052	AF2-196 E	4.9393	Adder	5.81
959161	AF2-207 C O1	5.2237	Adder	6.15
959162	AF2-207 E O1	7.8356	Adder	9.22
959571	AF2-248 C	1.0403	50/50	1.0403
959572	AF2-248 E	1.1626	50/50	1.1626
959581	AF2-249 C	0.1836	50/50	0.1836
959582	AF2-249 E	0.7343	50/50	0.7343
959591	AF2-250 C	0.3366	50/50	0.3366
959592	AF2-250 E	0.2601	50/50	0.2601
960221	AF2-313 C	3.0617	Adder	3.6
960222	AF2-313 E	1.7358	Adder	2.04
960341	AF2-325 C	1.4106	50/50	1.4106
960342	AF2-325 E	1.9479	50/50	1.9479
960671	AF2-358 C O1	19.9158	50/50	19.9158
960672	AF2-358 E O1	13.2772	50/50	13.2772
960871	AF2-378 C	0.3722	50/50	0.3722
960872	AF2-378 E	0.5163	50/50	0.5163
960881	AF2-379 C	0.5126	50/50	0.5126
960882	AF2-379 E	0.7064	50/50	0.7064
960941	AF2-385 C	12.3856	Adder	14.57
960942	AF2-385 E	7.0479	Adder	8.29
960961	AF2-387 C O1	24.0326	50/50	24.0326
960962	AF2-387 E O1	12.0524	50/50	12.0524
961181	AF2-409 O1	34.7410	50/50	34.7410
962161	AG1-061 C O2	21.4414	50/50	21.4414
962162	AG1-061 E O2	14.2943	50/50	14.2943
962261	AG1-072	18.0425	50/50	18.0425
962302	AG1-079 E	0.1495	Adder	0.33
962381	AG1-087 C O2	14.5260	Adder	32.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962382	AG1-087 E O2	39.1837	Adder	86.98
963001	AG1-149	0.9354	50/50	0.9354
963011	AG1-150	5.4972	Adder	12.2
964551	AG1-318 C	0.0376	Adder	0.08
964552	AG1-318 E	0.0877	Adder	0.19
964962	AG1-360 E	2.7180	50/50	2.7180
965321	AG1-397 C	0.5674	Adder	1.26
965322	AG1-397 E	0.7828	Adder	1.74
965611	AG1-429 C O2	4.8528	Adder	10.77
965612	AG1-429 E O2	3.2343	Adder	7.18
965821	AG1-450	8.3095	50/50	8.3095
965921	AG1-461 C O2	2.5181	Adder	5.59
965922	AG1-461 E O2	1.3559	Adder	3.01
965951	AG1-464 C O2	2.1092	Adder	4.68
965952	AG1-464 E O2	3.1637	Adder	7.02
966281	AG1-497 C O2	5.9491	Adder	13.21
966282	AG1-497 E O2	2.5496	Adder	5.66
966601	AG1-529 C	5.4292	Adder	12.05
966602	AG1-529 E	2.8978	Adder	6.43
CALDERWOOD	CALDERWOOD	0.1411	Confirmed LTF	0.1411
NY	NY	0.0868	Confirmed LTF	0.0868
PRAIRIE	PRAIRIE	0.7310	Confirmed LTF	0.7310
O-066	O-066	0.6663	Confirmed LTF	0.6663
CHEOAH	CHEOAH	0.1421	Confirmed LTF	0.1421
COTTONWOOD	COTTONWOOD	0.5964	Confirmed LTF	0.5964
G-007	G-007	0.0662	Confirmed LTF	0.0662
HAMLET	HAMLET	0.1657	Confirmed LTF	0.1657
GIBSON	GIBSON	0.1545	Confirmed LTF	0.1545
BLUEG	BLUEG	0.4913	Confirmed LTF	0.4913
TRIMBLE	TRIMBLE	0.1575	Confirmed LTF	0.1575
CATAWBA	CATAWBA	0.1001	Confirmed LTF	0.1001

13.5.21 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
174169890	232002	CEDAR CK	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP11	breaker	678.0	158.19	185.79	DC	210.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	4.8281	Adder	5.68
232407	W1-004 E	4.8281	Adder	5.68
232409	W1-005 E	4.8281	Adder	5.68
232411	W1-006 E	4.8281	Adder	5.68
232412	X1-032 E	1.5510	Adder	1.82
232418	X3-008 E	3.4854	Adder	4.1
232427	Y1-080 E	0.7017	Adder	0.83
232429	Y3-058 E	2.2908	Adder	2.7
232433	Z2-076 E	0.8018	Adder	0.94
232435	Z2-077 E	0.8018	Adder	0.94
232813	VAUGHN	0.2312	50/50	0.2312
232851	DUP-SFR1	4.7957	50/50	4.7957
232899	W1-062	5.2566	50/50	5.2566
232900	DEMECSMY	5.1493	50/50	5.1493
232904	IR4	30.7503	50/50	30.7503
232910	NRG_G1	3.3290	50/50	3.3290
232911	NRG_G2	3.3290	50/50	3.3290
232922	MR3 (Deactivation : 01/06/2021)	20.9944	Adder	24.7
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.7230	Adder	0.85
917082	CHERRYDALE E	4.8290	Adder	5.68
918835	AA1-102 E	36.0247	Adder	42.38
919831	AA2-069 (Suspended)	92.8282	Adder	109.21
924681	AB2-120 C	14.8060	Adder	17.42
924682	AB2-120 E	24.1572	Adder	28.42
924781	AB2-130 C O1	12.6968	Adder	14.94
924782	AB2-130 E O1	20.7159	Adder	24.37
924821	AB2-135 C	5.5247	Adder	6.5
924822	AB2-135 E	6.3008	Adder	7.41
924831	AB2-136 C	7.6856	Adder	9.04
924832	AB2-136 E	8.1504	Adder	9.59
925151	AB2-172 C	5.3405	Adder	6.28
925152	AB2-172 E	8.7134	Adder	10.25
925261	AB2-180 C	5.2577	Adder	6.19
925262	AB2-180 E	2.2533	Adder	2.65
926131	AC1-091 C	5.7900	50/50	5.7900
926132	AC1-091 E	9.4956	50/50	9.4956
926141	AC1-092 C	5.7900	50/50	5.7900
926142	AC1-092 E	9.4956	50/50	9.4956
926151	AC1-093 C	5.4812	50/50	5.4812
926152	AC1-093 E	9.0324	50/50	9.0324

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926161	AC1-094 C	4.6320	50/50	4.6320
926162	AC1-094 E	7.6428	50/50	7.6428
927031	AC1-190 C	10.0171	Adder	11.78
927032	AC1-190 E	4.2931	Adder	5.05
927191	AC1-213 C	1.2251	Adder	1.44
927192	AC1-213 E	0.8040	Adder	0.95
930201	AB1-056 C	30.4734	50/50	30.4734
930202	AB1-056 E	86.7830	50/50	86.7830
932161	AC2-023 C	9.8236	Adder	11.56
932162	AC2-023 E	7.1545	Adder	8.42
933631	AC2-185 C	11.7344	50/50	11.7344
933632	AC2-185 E	19.1456	50/50	19.1456
933641	AC2-186 C	9.5625	50/50	9.5625
933642	AC2-186 E	15.6020	50/50	15.6020
938651	AE1-087 C	4.4972	Adder	5.29
938652	AE1-087 E	1.1243	Adder	1.32
938895	AE1-117 C	19.2747	Adder	22.68
938896	AE1-117 E	51.3993	Adder	60.47
939151	AE1-145	7.7909	Adder	9.17
942441	AE2-257 C	13.2564	Adder	15.6
942442	AE2-257 E	34.9488	Adder	41.12
943361	AF1-007 C	0.8991	50/50	0.8991
943362	AF1-007 E	2.5552	50/50	2.5552
945661	AF1-231 C	2.9598	Adder	3.48
945662	AF1-231 E	4.4397	Adder	5.22
945791	AF1-244	3.0989	Adder	3.65
945931	AF1-258	1.2018	Adder	1.41
957611	AF2-055 C	13.6303	Adder	16.04
957612	AF2-055 E	5.8415	Adder	6.87
957661	AF2-060	3.5059	Adder	4.12
957671	AF2-061 O1	15.5819	Adder	18.33
959021	AF2-193 C	56.3096	50/50	56.3096
959022	AF2-193 E	151.8940	50/50	151.8940
959031	AF2-194 C	56.3096	50/50	56.3096
959032	AF2-194 E	151.8940	50/50	151.8940
959051	AF2-196 C	3.6154	Adder	4.25
959052	AF2-196 E	8.4359	Adder	9.92
959161	AF2-207 C O1	7.8089	Adder	9.19
959162	AF2-207 E O1	11.7133	Adder	13.78
959571	AF2-248 C	1.3113	Adder	1.54
959572	AF2-248 E	1.4656	Adder	1.72
959581	AF2-249 C	0.2314	Adder	0.27
959582	AF2-249 E	0.9256	Adder	1.09
959591	AF2-250 C	0.4242	Adder	0.5
959592	AF2-250 E	0.3278	Adder	0.39
960341	AF2-325 C	1.2583	Adder	1.48
960342	AF2-325 E	1.7376	Adder	2.04
960671	AF2-358 C O1	20.3199	Adder	23.91
960672	AF2-358 E O1	13.5466	Adder	15.94
960871	AF2-378 C	0.3387	Adder	0.4
960872	AF2-378 E	0.4699	Adder	0.55
960881	AF2-379 C	0.6317	Adder	0.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960882	AF2-379 E	0.8706	Adder	1.02
960941	AF2-385 C	18.5151	Adder	21.78
960942	AF2-385 E	10.5358	Adder	12.4
961181	AF2-409 O1	37.7086	Adder	44.36
962161	AG1-061 C O2	13.3349	Adder	29.6
962162	AG1-061 E O2	8.8899	Adder	19.73
962302	AG1-079 E	0.2362	Adder	0.52
962381	AG1-087 C O2	56.8606	50/50	56.8606
962382	AG1-087 E O2	153.3802	50/50	153.3802
963001	AG1-149	0.6159	Adder	1.37
963011	AG1-150	8.2584	Adder	18.33
964551	AG1-318 C	0.0638	Adder	0.14
964552	AG1-318 E	0.1489	Adder	0.33
964962	AG1-360 E	1.7982	Adder	3.99
965321	AG1-397 C	0.8601	Adder	1.91
965322	AG1-397 E	1.1865	Adder	2.63
965611	AG1-429 C O2	7.2777	Adder	16.15
965612	AG1-429 E O2	4.8504	Adder	10.77
965821	AG1-450	4.4276	Adder	9.83
965921	AG1-461 C O2	4.0833	Adder	9.06
965922	AG1-461 E O2	2.1987	Adder	4.88
965951	AG1-464 C O2	10.0658	50/50	10.0658
965952	AG1-464 E O2	15.0987	50/50	15.0987
966281	AG1-497 C O2	9.1634	Adder	20.34
966282	AG1-497 E O2	3.9272	Adder	8.72
966601	AG1-529 C	24.5639	50/50	24.5639
966602	AG1-529 E	13.1108	50/50	13.1108
CALDERWOOD	CALDERWOOD	0.1889	Confirmed LTF	0.1889
NY	NY	0.2323	Confirmed LTF	0.2323
PRAIRIE	PRAIRIE	0.9815	Confirmed LTF	0.9815
O-066	O-066	2.9545	Confirmed LTF	2.9545
SIGE	SIGE	0.0061	Confirmed LTF	0.0061
CHEOAH	CHEOAH	0.1902	Confirmed LTF	0.1902
COTTONWOOD	COTTONWOOD	0.7980	Confirmed LTF	0.7980
G-007	G-007	0.4746	Confirmed LTF	0.4746
HAMLET	HAMLET	0.2189	Confirmed LTF	0.2189
GIBSON	GIBSON	0.2080	Confirmed LTF	0.2080
BLUEG	BLUEG	0.6614	Confirmed LTF	0.6614
TRIMBLE	TRIMBLE	0.2120	Confirmed LTF	0.2120
CATAWBA	CATAWBA	0.1326	Confirmed LTF	0.1326

13.5.22 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
173975237	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP11	breaker	790.0	153.16	175.59	DC	178.68

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	3.8858	Adder	4.57
232407	W1-004 E	3.8858	Adder	4.57
232409	W1-005 E	3.8858	Adder	4.57
232411	W1-006 E	3.8858	Adder	4.57
232412	X1-032 E	1.2458	Adder	1.47
232418	X3-008 E	2.6772	Adder	3.15
232427	Y1-080 E	0.5463	Adder	0.64
232429	Y3-058 E	1.8078	Adder	2.13
232432	Z2-076 C	0.2379	50/50	0.2379
232433	Z2-076 E	0.7595	50/50	0.7595
232434	Z2-077 C	0.2379	50/50	0.2379
232435	Z2-077 E	0.7595	50/50	0.7595
232616	GEN FOOD	1.6351	50/50	1.6351
232851	DUP-SFR1	2.8996	Adder	3.41
232901	NORTHST	4.9482	50/50	4.9482
232904	IR4	25.2130	50/50	25.2130
232920	IR10	0.9712	50/50	0.9712
232922	MR3 (Deactivation : 01/06/2021)	69.5456	50/50	69.5456
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.2528	50/50	0.2528
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.6868	50/50	0.6868
233920	W3-032A-CTG1	20.7611	50/50	20.7611
233921	W3-032A-STG1	12.4997	50/50	12.4997
917082	CHERRYDALE E	3.8868	Adder	4.57
918835	AA1-102 E	28.9197	Adder	34.02
919831	AA2-069 (Suspended)	307.5008	50/50	307.5008
924681	AB2-120 C	14.0243	50/50	14.0243
924682	AB2-120 E	22.8817	50/50	22.8817
924781	AB2-130 C O1	9.5552	Adder	11.24
924782	AB2-130 E O1	15.5900	Adder	18.34
924831	AB2-136 C	5.9500	Adder	7.0
924832	AB2-136 E	6.3099	Adder	7.42
925151	AB2-172 C	4.1021	Adder	4.83
925152	AB2-172 E	6.6929	Adder	7.87
925261	AB2-180 C	4.1489	Adder	4.88
925262	AB2-180 E	1.7781	Adder	2.09
927031	AC1-190 C	7.7058	Adder	9.07
927032	AC1-190 E	3.3025	Adder	3.89
927191	AC1-213 C	0.9694	Adder	1.14
927192	AC1-213 E	0.6362	Adder	0.75

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930201	AB1-056 C	24.9859	50/50	24.9859
930202	AB1-056 E	71.1555	50/50	71.1555
932161	AC2-023 C	7.7373	Adder	9.1
932162	AC2-023 E	5.6351	Adder	6.63
933641	AC2-186 C	4.6588	Adder	5.48
933642	AC2-186 E	7.6012	Adder	8.94
938651	AE1-087 C	3.4544	Adder	4.06
938652	AE1-087 E	0.8636	Adder	1.02
938895	AE1-117 C	18.3134	50/50	18.3134
938896	AE1-117 E	48.8358	50/50	48.8358
939151	AE1-145	6.2713	Adder	7.38
942441	AE2-257 C	12.6139	50/50	12.6139
942442	AE2-257 E	33.2549	50/50	33.2549
943361	AF1-007 C	0.7372	50/50	0.7372
943362	AF1-007 E	2.0951	50/50	2.0951
945661	AF1-231 C	2.3824	Adder	2.8
945662	AF1-231 E	3.5736	Adder	4.2
945791	AF1-244	2.4877	Adder	2.93
945931	AF1-258	0.9483	Adder	1.12
957611	AF2-055 C	10.9709	Adder	12.91
957612	AF2-055 E	4.7018	Adder	5.53
957661	AF2-060	2.8221	Adder	3.32
957671	AF2-061 O1	12.5426	Adder	14.76
959021	AF2-193 C	46.1696	50/50	46.1696
959022	AF2-193 E	124.5416	50/50	124.5416
959031	AF2-194 C	46.1696	50/50	46.1696
959032	AF2-194 E	124.5416	50/50	124.5416
959051	AF2-196 C	3.4402	50/50	3.4402
959052	AF2-196 E	8.0270	50/50	8.0270
959161	AF2-207 C O1	6.0857	Adder	7.16
959162	AF2-207 E O1	9.1285	Adder	10.74
959571	AF2-248 C	1.0277	Adder	1.21
959572	AF2-248 E	1.1486	Adder	1.35
959581	AF2-249 C	0.1814	Adder	0.21
959582	AF2-249 E	0.7254	Adder	0.85
959591	AF2-250 C	0.3325	Adder	0.39
959592	AF2-250 E	0.2569	Adder	0.3
960341	AF2-325 C	0.9716	Adder	1.14
960342	AF2-325 E	1.3417	Adder	1.58
960671	AF2-358 C O1	15.8335	Adder	18.63
960672	AF2-358 E O1	10.5556	Adder	12.42
960871	AF2-378 C	0.2619	Adder	0.31
960872	AF2-378 E	0.3634	Adder	0.43
960881	AF2-379 C	0.5044	Adder	0.59
960882	AF2-379 E	0.6950	Adder	0.82
960941	AF2-385 C	14.4293	Adder	16.98
960942	AF2-385 E	8.2108	Adder	9.66
961181	AF2-409 O1	29.9353	Adder	35.22
962161	AG1-061 C O2	10.5991	Adder	23.53
962162	AG1-061 E O2	7.0661	Adder	15.69
962302	AG1-079 E	0.0935	Adder	0.21
962381	AG1-087 C O2	48.3235	50/50	48.3235

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962382	AG1-087 E O2	130.3517	50/50	130.3517
963001	AG1-149	0.4944	Adder	1.1
963011	AG1-150	14.7560	50/50	14.7560
964551	AG1-318 C	0.1143	50/50	0.1143
964552	AG1-318 E	0.2667	50/50	0.2667
964962	AG1-360 E	1.4443	Adder	3.21
965321	AG1-397 C	0.6840	Adder	1.52
965322	AG1-397 E	0.9436	Adder	2.09
965611	AG1-429 C O2	5.8578	Adder	13.0
965612	AG1-429 E O2	3.9041	Adder	8.67
965821	AG1-450	3.4468	Adder	7.65
965921	AG1-461 C O2	3.1319	Adder	6.95
965922	AG1-461 E O2	1.6864	Adder	3.74
965951	AG1-464 C O2	2.5991	Adder	5.77
965952	AG1-464 E O2	3.8987	Adder	8.65
966281	AG1-497 C O2	57.2729	50/50	57.2729
966282	AG1-497 E O2	24.5455	50/50	24.5455
966601	AG1-529 C	7.8431	Adder	17.41
966602	AG1-529 E	4.1862	Adder	9.29
CALDERWOOD	CALDERWOOD	0.1864	Confirmed LTF	0.1864
NY	NY	0.2190	Confirmed LTF	0.2190
PRAIRIE	PRAIRIE	0.9686	Confirmed LTF	0.9686
O-066	O-066	2.7324	Confirmed LTF	2.7324
SIGE	SIGE	0.0033	Confirmed LTF	0.0033
CHEOAH	CHEOAH	0.1877	Confirmed LTF	0.1877
COTTONWOOD	COTTONWOOD	0.7875	Confirmed LTF	0.7875
G-007	G-007	0.4336	Confirmed LTF	0.4336
HAMLET	HAMLET	0.2160	Confirmed LTF	0.2160
GIBSON	GIBSON	0.2047	Confirmed LTF	0.2047
BLUEG	BLUEG	0.6510	Confirmed LTF	0.6510
TRIMBLE	TRIMBLE	0.2087	Confirmed LTF	0.2087
CATAWBA	CATAWBA	0.1312	Confirmed LTF	0.1312

13.5.23 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
164868397	232012	HOPE CREEK	PJM	200029	HOPE CRK	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	115.55	133.6	DC	203.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	4.3871	Adder	5.16
232407	W1-004 E	4.3871	Adder	5.16
232409	W1-005 E	4.3871	Adder	5.16
232411	W1-006 E	4.3871	Adder	5.16
232412	X1-032 E	1.3954	Adder	1.64
232418	X3-008 E	3.6945	Adder	4.35
232423	X3-066 E	0.6264	Adder	0.74
232425	Y1-079 E	1.3675	Adder	1.61
232427	Y1-080 E	0.6616	Adder	0.78
232429	Y3-058 E	2.0912	Adder	2.46
232433	Z2-076 E	0.7602	Adder	0.89
232435	Z2-077 E	0.7602	Adder	0.89
232616	GEN FOOD	1.4453	50/50	1.4453
232813	VAUGHN	0.2195	50/50	0.2195
232851	DUP-SFR1	3.8081	Adder	4.48
232899	W1-062	4.4526	50/50	4.4526
232900	DEMECSMY	4.3617	50/50	4.3617
232901	NORTHST	4.3739	50/50	4.3739
232922	MR3 (Deactivation : 01/06/2021)	61.4734	50/50	61.4734
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.6898	Adder	0.81
233916	AB1-141 E	1.2494	Adder	1.47
233919	AB1-142 E	1.2494	Adder	1.47
233920	W3-032A-CTG1	18.3513	50/50	18.3513
233921	W3-032A-STG1	11.0488	50/50	11.0488
917082	CHERRYDALE E	4.3911	Adder	5.17
918835	AA1-102 E	32.3322	Adder	38.04
919831	AA2-069 (Suspended)	271.8087	50/50	271.8087
923921	AB2-032 C	2.6972	Adder	3.17
923922	AB2-032 E	1.2693	Adder	1.49
923951	AB2-036 C	7.6067	Adder	8.95
923952	AB2-036 E	12.4453	Adder	14.64
923961	AB2-037 C	16.3092	Adder	19.19
923962	AB2-037 E	26.6433	Adder	31.35
924681	AB2-120 C	13.4743	Adder	15.85
924682	AB2-120 E	21.9843	Adder	25.86
924781	AB2-130 C O1	11.7774	Adder	13.86
924782	AB2-130 E O1	19.2157	Adder	22.61
924801	AB2-133 C O1	5.1399	Adder	6.05
924802	AB2-133 E O1	6.5189	Adder	7.67
924821	AB2-135 C	7.6016	Adder	8.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924822	AB2-135 E	8.6694	Adder	10.2
924831	AB2-136 C	7.6196	Adder	8.96
924832	AB2-136 E	8.0804	Adder	9.51
924971	AB2-153 C	1.5072	Adder	1.77
924972	AB2-153 E	2.4592	Adder	2.89
925151	AB2-172 C	5.6609	Adder	6.66
925152	AB2-172 E	9.2362	Adder	10.87
925261	AB2-180 C	4.7995	Adder	5.65
925262	AB2-180 E	2.0569	Adder	2.42
925271	AB2-185 C	3.0879	Adder	3.63
925272	AB2-185 E	1.3234	Adder	1.56
926131	AC1-091 C	4.7147	50/50	4.7147
926132	AC1-091 E	7.7320	50/50	7.7320
926141	AC1-092 C	4.7147	50/50	4.7147
926142	AC1-092 E	7.7320	50/50	7.7320
926151	AC1-093 C	4.4632	50/50	4.4632
926152	AC1-093 E	7.3549	50/50	7.3549
926161	AC1-094 C	3.7717	50/50	3.7717
926162	AC1-094 E	6.2233	50/50	6.2233
927031	AC1-190 C	10.4860	Adder	12.34
927032	AC1-190 E	4.4940	Adder	5.29
927191	AC1-213 C	1.1181	Adder	1.32
927192	AC1-213 E	0.7337	Adder	0.86
930201	AB1-056 C	24.9494	Adder	29.35
930202	AB1-056 E	71.0515	Adder	83.59
931261	AB1-176 C	0.3239	Adder	0.38
931262	AB1-176 E	0.5341	Adder	0.63
932161	AC2-023 C	8.9690	Adder	10.55
932162	AC2-023 E	6.5321	Adder	7.68
933631	AC2-185 C	9.5550	50/50	9.5550
933632	AC2-185 E	15.5898	50/50	15.5898
933641	AC2-186 C	9.0069	50/50	9.0069
933642	AC2-186 E	14.6955	50/50	14.6955
936611	AD2-076 C O1	3.7879	Adder	4.46
936612	AD2-076 E O1	6.1802	Adder	7.27
938651	AE1-087 C	4.7671	Adder	5.61
938652	AE1-087 E	1.1918	Adder	1.4
938895	AE1-117 C	18.3902	Adder	21.64
938896	AE1-117 E	49.0405	Adder	57.69
939151	AE1-145	7.0912	Adder	8.34
941021	AE2-093 C	3.9383	Adder	4.63
941022	AE2-093 E	6.4256	Adder	7.56
941181	AE2-112 C	1.3142	Adder	1.55
941182	AE2-112 E	2.1442	Adder	2.52
942441	AE2-257 C	12.6674	Adder	14.9
942442	AE2-257 E	33.3958	Adder	39.29
943361	AF1-007 C	0.7361	Adder	0.87
943362	AF1-007 E	2.0920	Adder	2.46
943441	AF1-015 C	1.4839	Adder	1.75
943442	AF1-015 E	2.0492	Adder	2.41
943651	AF1-036 C	1.7088	Adder	2.01
943652	AF1-036 E	2.3598	Adder	2.78

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945661	AF1-231 C	2.6907	Adder	3.17
945662	AF1-231 E	4.0360	Adder	4.75
945791	AF1-244	2.7813	Adder	3.27
945931	AF1-258	1.0970	Adder	1.29
945941	AF1-259	0.1716	Adder	0.2
957611	AF2-055 C	12.3941	Adder	14.58
957612	AF2-055 E	5.3118	Adder	6.25
957661	AF2-060	3.1910	Adder	3.75
957671	AF2-061 O1	14.1824	Adder	16.69
959021	AF2-193 C	46.1021	Adder	54.24
959022	AF2-193 E	124.3596	Adder	146.31
959031	AF2-194 C	46.1021	Adder	54.24
959032	AF2-194 E	124.3596	Adder	146.31
959051	AF2-196 C	3.4547	Adder	4.06
959052	AF2-196 E	8.0611	Adder	9.48
959161	AF2-207 C O1	7.1013	Adder	8.35
959162	AF2-207 E O1	10.6520	Adder	12.53
959571	AF2-248 C	1.1941	Adder	1.4
959572	AF2-248 E	1.3345	Adder	1.57
959581	AF2-249 C	0.2107	Adder	0.25
959582	AF2-249 E	0.8429	Adder	0.99
959591	AF2-250 C	0.3863	Adder	0.45
959592	AF2-250 E	0.2985	Adder	0.35
960221	AF2-313 C	2.7242	Adder	3.2
960222	AF2-313 E	1.5444	Adder	1.82
960341	AF2-325 C	1.2765	Adder	1.5
960342	AF2-325 E	1.7627	Adder	2.07
960671	AF2-358 C O1	18.9909	Adder	22.34
960672	AF2-358 E O1	12.6606	Adder	14.89
960871	AF2-378 C	0.3393	Adder	0.4
960872	AF2-378 E	0.4708	Adder	0.55
960881	AF2-379 C	0.5677	Adder	0.67
960882	AF2-379 E	0.7823	Adder	0.92
960941	AF2-385 C	16.8375	Adder	19.81
960942	AF2-385 E	9.5812	Adder	11.27
960961	AF2-387 C O1	15.0900	Adder	17.75
960962	AF2-387 E O1	7.5676	Adder	8.9
961181	AF2-409 O1	31.1721	Adder	36.67
962161	AG1-061 C O2	11.5463	Adder	25.63
962162	AG1-061 E O2	7.6975	Adder	17.09
962261	AG1-072	6.0043	Adder	13.33
962302	AG1-079 E	0.2561	Adder	0.57
962381	AG1-087 C O2	54.9768	50/50	54.9768
962382	AG1-087 E O2	148.2988	50/50	148.2988
963001	AG1-149	0.5528	Adder	1.23
963011	AG1-150	7.5167	Adder	16.69
964551	AG1-318 C	0.0608	Adder	0.13
964552	AG1-318 E	0.1419	Adder	0.31
964962	AG1-360 E	1.6178	Adder	3.59
965321	AG1-397 C	0.7937	Adder	1.76
965322	AG1-397 E	1.0949	Adder	2.43
965611	AG1-429 C O2	6.6177	Adder	14.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965612	AG1-429 E O2	4.4105	Adder	9.79
965821	AG1-450	4.1746	Adder	9.27
965921	AG1-461 C O2	3.8217	Adder	8.48
965922	AG1-461 E O2	2.0578	Adder	4.57
965951	AG1-464 C O2	9.4810	50/50	9.4810
965952	AG1-464 E O2	14.2215	50/50	14.2215
966281	AG1-497 C O2	50.6251	50/50	50.6251
966282	AG1-497 E O2	21.6965	50/50	21.6965
966601	AG1-529 C	23.5815	50/50	23.5815
966602	AG1-529 E	12.5865	50/50	12.5865
CALDERWOOD	CALDERWOOD	0.1402	Confirmed LTF	0.1402
NY	NY	0.5331	Confirmed LTF	0.5331
PRAIRIE	PRAIRIE	0.7491	Confirmed LTF	0.7491
O-066	O-066	8.5336	Confirmed LTF	8.5336
SIGE	SIGE	0.1025	Confirmed LTF	0.1025
CHEOAH	CHEOAH	0.1406	Confirmed LTF	0.1406
COTTONWOOD	COTTONWOOD	0.5985	Confirmed LTF	0.5985
G-007	G-007	1.5288	Confirmed LTF	1.5288
HAMLET	HAMLET	0.1542	Confirmed LTF	0.1542
GIBSON	GIBSON	0.1600	Confirmed LTF	0.1600
BLUEG	BLUEG	0.5086	Confirmed LTF	0.5086
TRIMBLE	TRIMBLE	0.1631	Confirmed LTF	0.1631
CATAWBA	CATAWBA	0.0952	Confirmed LTF	0.0952

13.5.24 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
174170014	232013	SILVER RUN	PJM	231004	RL_230	DP&L	1	DPL_P4-2_DP11	breaker	678.0	107.99	127.03	DC	128.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.8581	Adder	3.36
232407	W1-004 E	2.8581	Adder	3.36
232409	W1-005 E	2.8581	Adder	3.36
232411	W1-006 E	2.8581	Adder	3.36
232412	X1-032 E	0.9165	Adder	1.08
232418	X3-008 E	1.8774	Adder	2.21
232427	Y1-080 E	0.3965	Adder	0.47
232429	Y3-058 E	1.3337	Adder	1.57
232433	Z2-076 E	0.4767	Adder	0.56
232435	Z2-077 E	0.4767	Adder	0.56
232616	GEN FOOD	0.7400	50/50	0.7400
232851	DUP-SFR1	2.2852	Adder	2.69
232899	W1-062	2.1692	50/50	2.1692
232901	NORTHST	2.2393	50/50	2.2393
232904	IR4	18.4824	50/50	18.4824
232920	IR10	0.7166	50/50	0.7166
232922	MR3 (Deactivation : 01/06/2021)	31.4731	50/50	31.4731
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.1867	50/50	0.1867
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.5070	50/50	0.5070
233920	W3-032A-CTG1	9.3955	50/50	9.3955
233921	W3-032A-STG1	5.6568	50/50	5.6568
917082	CHERRYDALE E	2.8590	Adder	3.36
918835	AA1-102 E	21.2787	Adder	25.03
919831	AA2-069 (Suspended)	139.1606	50/50	139.1606
924681	AB2-120 C	8.7675	Adder	10.31
924682	AB2-120 E	14.3049	Adder	16.83
924781	AB2-130 C O1	7.2737	Adder	8.56
924782	AB2-130 E O1	11.8675	Adder	13.96
924831	AB2-136 C	4.2584	Adder	5.01
924832	AB2-136 E	4.5159	Adder	5.31
925151	AB2-172 C	2.8766	Adder	3.38
925152	AB2-172 E	4.6935	Adder	5.52
925261	AB2-180 C	3.0610	Adder	3.6
925262	AB2-180 E	1.3119	Adder	1.54
926131	AC1-091 C	2.2368	50/50	2.2368
926132	AC1-091 E	3.6684	50/50	3.6684
926141	AC1-092 C	2.2368	50/50	2.2368
926142	AC1-092 E	3.6684	50/50	3.6684
926151	AC1-093 C	2.1175	50/50	2.1175

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926152	AC1-093 E	3.4894	50/50	3.4894
926161	AC1-094 C	1.7894	50/50	1.7894
926162	AC1-094 E	2.9526	50/50	2.9526
927031	AC1-190 C	5.4252	Adder	6.38
927032	AC1-190 E	2.3251	Adder	2.74
927191	AC1-213 C	0.7167	Adder	0.84
927192	AC1-213 E	0.4704	Adder	0.55
930201	AB1-056 C	18.3160	50/50	18.3160
930202	AB1-056 E	52.1608	50/50	52.1608
932161	AC2-023 C	5.7002	Adder	6.71
932162	AC2-023 E	4.1514	Adder	4.88
933631	AC2-185 C	4.5332	50/50	4.5332
933632	AC2-185 E	7.3964	50/50	7.3964
933641	AC2-186 C	4.1620	Adder	4.9
933642	AC2-186 E	6.7907	Adder	7.99
938651	AE1-087 C	2.4224	Adder	2.85
938652	AE1-087 E	0.6056	Adder	0.71
938895	AE1-117 C	13.5182	50/50	13.5182
938896	AE1-117 E	36.0486	50/50	36.0486
939151	AE1-145	4.6129	Adder	5.43
942441	AE2-257 C	9.3050	50/50	9.3050
942442	AE2-257 E	24.5314	50/50	24.5314
943361	AF1-007 C	0.5404	50/50	0.5404
943362	AF1-007 E	1.5358	50/50	1.5358
945661	AF1-231 C	1.7523	Adder	2.06
945662	AF1-231 E	2.6284	Adder	3.09
945791	AF1-244	1.8304	Adder	2.15
945931	AF1-258	0.6997	Adder	0.82
957611	AF2-055 C	8.0697	Adder	9.49
957612	AF2-055 E	3.4584	Adder	4.07
957661	AF2-060	2.0758	Adder	2.44
957671	AF2-061 O1	9.2259	Adder	10.85
959021	AF2-193 C	33.8448	50/50	33.8448
959022	AF2-193 E	91.2956	50/50	91.2956
959031	AF2-194 C	33.8448	50/50	33.8448
959032	AF2-194 E	91.2956	50/50	91.2956
959051	AF2-196 C	2.5377	50/50	2.5377
959052	AF2-196 E	5.9214	50/50	5.9214
959161	AF2-207 C O1	4.5421	Adder	5.34
959162	AF2-207 E O1	6.8131	Adder	8.02
959571	AF2-248 C	0.7643	Adder	0.9
959572	AF2-248 E	0.8543	Adder	1.01
959581	AF2-249 C	0.1349	Adder	0.16
959582	AF2-249 E	0.5395	Adder	0.63
959591	AF2-250 C	0.2473	Adder	0.29
959592	AF2-250 E	0.1911	Adder	0.22
960341	AF2-325 C	0.6907	Adder	0.81
960342	AF2-325 E	0.9538	Adder	1.12
960671	AF2-358 C O1	11.5194	Adder	13.55
960672	AF2-358 E O1	7.6796	Adder	9.03
960871	AF2-378 C	0.1869	Adder	0.22
960872	AF2-378 E	0.2593	Adder	0.31

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.3717	Adder	0.44
960882	AF2-379 E	0.5122	Adder	0.6
960941	AF2-385 C	10.7694	Adder	12.67
960942	AF2-385 E	6.1282	Adder	7.21
961181	AF2-409 O1	22.0388	Adder	25.93
962161	AG1-061 C O2	7.8226	Adder	17.36
962162	AG1-061 E O2	5.2151	Adder	11.58
962302	AG1-079 E	0.0952	Adder	0.21
962381	AG1-087 C O2	34.8849	50/50	34.8849
962382	AG1-087 E O2	94.1012	50/50	94.1012
963001	AG1-149	0.3638	Adder	0.81
963011	AG1-150	4.8897	Adder	10.85
964551	AG1-318 C	0.0844	50/50	0.0844
964552	AG1-318 E	0.1969	50/50	0.1969
964962	AG1-360 E	1.0626	Adder	2.36
965321	AG1-397 C	0.5055	Adder	1.12
965322	AG1-397 E	0.6974	Adder	1.55
965611	AG1-429 C O2	4.3087	Adder	9.56
965612	AG1-429 E O2	2.8717	Adder	6.37
965821	AG1-450	2.5017	Adder	5.55
965921	AG1-461 C O2	2.3639	Adder	5.25
965922	AG1-461 E O2	1.2729	Adder	2.83
965951	AG1-464 C O2	2.3220	Adder	5.15
965952	AG1-464 E O2	3.4830	Adder	7.73
966281	AG1-497 C O2	25.9190	50/50	25.9190
966282	AG1-497 E O2	11.1082	50/50	11.1082
966601	AG1-529 C	13.8548	50/50	13.8548
966602	AG1-529 E	7.3949	50/50	7.3949
G-007A	G-007A	2.5701	Confirmed LTF	2.5701
VFT	VFT	5.8050	Confirmed LTF	5.8050
CALDERWOOD	CALDERWOOD	0.2286	Confirmed LTF	0.2286
PRAIRIE	PRAIRIE	1.1598	Confirmed LTF	1.1598
CHEOAH	CHEOAH	0.2307	Confirmed LTF	0.2307
CBM-N	CBM-N	0.8496	Confirmed LTF	0.8496
COTTONWOOD	COTTONWOOD	0.9555	Confirmed LTF	0.9555
HAMLET	HAMLET	0.2766	Confirmed LTF	0.2766
GIBSON	GIBSON	0.2435	Confirmed LTF	0.2435
BLUEG	BLUEG	0.7743	Confirmed LTF	0.7743
TRIMBLE	TRIMBLE	0.2476	Confirmed LTF	0.2476
CATAWBA	CATAWBA	0.1656	Confirmed LTF	0.1656

13.5.25 Index 25

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 %	ACID C	MW IMPACT
166669854	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FS_A	tower	348.0	182.03	191.71	DC	77.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	-9.2465	Adder	-10.88
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
926131	AC1-091 C	0.6418	Adder	0.76
926132	AC1-091 E	1.0526	Adder	1.24
926141	AC1-092 C	0.6418	Adder	0.76
926142	AC1-092 E	1.0526	Adder	1.24
926151	AC1-093 C	0.6076	Adder	0.71
926152	AC1-093 E	1.0013	Adder	1.18
926161	AC1-094 C	0.5135	Adder	0.6
926162	AC1-094 E	0.8472	Adder	1.0
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933631	AC2-185 C	1.3008	Adder	1.53
933632	AC2-185 E	2.1223	Adder	2.5
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O2	13.9771	50/50	13.9771
962162	AG1-061 E O2	9.3180	50/50	9.3180
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O2	9.4299	Adder	20.93
962382	AG1-087 E O2	25.4370	Adder	56.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O2	3.1865	Adder	7.07
965612	AG1-429 E O2	2.1237	Adder	4.71
965821	AG1-450	5.7923	50/50	5.7923
965921	AG1-461 C O2	1.7107	Adder	3.8
965922	AG1-461 E O2	0.9211	Adder	2.04
965951	AG1-464 C O2	1.7512	Adder	3.89
965952	AG1-464 E O2	2.6268	Adder	5.83
966281	AG1-497 C O2	3.9481	Adder	8.76
966282	AG1-497 E O2	1.6920	Adder	3.76
966601	AG1-529 C	3.8100	Adder	8.46
966602	AG1-529 E	2.0336	Adder	4.51
CALDERWOOD	CALDERWOOD	0.0924	Confirmed LTF	0.0924
NY	NY	0.0586	Confirmed LTF	0.0586
PRAIRIE	PRAIRIE	0.4779	Confirmed LTF	0.4779
O-066	O-066	0.4576	Confirmed LTF	0.4576
CHEOAH	CHEOAH	0.0931	Confirmed LTF	0.0931
COTTONWOOD	COTTONWOOD	0.3906	Confirmed LTF	0.3906
G-007	G-007	0.0378	Confirmed LTF	0.0378
HAMLET	HAMLET	0.1091	Confirmed LTF	0.1091
GIBSON	GIBSON	0.1010	Confirmed LTF	0.1010
BLUEG	BLUEG	0.3212	Confirmed LTF	0.3212
TRIMBLE	TRIMBLE	0.1030	Confirmed LTF	0.1030
CATAWBA	CATAWBA	0.0658	Confirmed LTF	0.0658

13.5.26 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
166669864	232106	MIDLTNTP	DP&L	232104	MT PLSNT	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	162.31	171.98	DC	77.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	27.1217	50/50	27.1217
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925254	AB2-179 E	8.8503	50/50	8.8503
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O2	13.9771	50/50	13.9771
962162	AG1-061 E O2	9.3180	50/50	9.3180
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O2	9.4299	Adder	20.93
962382	AG1-087 E O2	25.4370	Adder	56.46
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O2	3.1865	Adder	7.07
965612	AG1-429 E O2	2.1237	Adder	4.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965821	AG1-450	5.7923	50/50	5.7923
965921	AG1-461 C O2	1.7107	Adder	3.8
965922	AG1-461 E O2	0.9211	Adder	2.04
965951	AG1-464 C O2	1.7512	Adder	3.89
965952	AG1-464 E O2	2.6268	Adder	5.83
966281	AG1-497 C O2	3.9481	Adder	8.76
966282	AG1-497 E O2	1.6920	Adder	3.76
966601	AG1-529 C	3.8100	Adder	8.46
966602	AG1-529 E	2.0336	Adder	4.51
CALDERWOOD	CALDERWOOD	0.0924	Confirmed LTF	0.0924
NY	NY	0.0586	Confirmed LTF	0.0586
PRAIRIE	PRAIRIE	0.4779	Confirmed LTF	0.4779
O-066	O-066	0.4576	Confirmed LTF	0.4576
CHEOAH	CHEOAH	0.0931	Confirmed LTF	0.0931
COTTONWOOD	COTTONWOOD	0.3906	Confirmed LTF	0.3906
G-007	G-007	0.0378	Confirmed LTF	0.0378
HAMLET	HAMLET	0.1091	Confirmed LTF	0.1091
GIBSON	GIBSON	0.1010	Confirmed LTF	0.1010
BLUEG	BLUEG	0.3212	Confirmed LTF	0.3212
TRIMBLE	TRIMBLE	0.1030	Confirmed LTF	0.1030
CATAWBA	CATAWBA	0.0658	Confirmed LTF	0.0658

13.5.27 Index 27

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 %	ACID C	MW IMPACT
166669849	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A	tower	348.0	187.77	197.44	DC	77.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	27.1217	50/50	27.1217
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925254	AB2-179 E	8.8503	50/50	8.8503
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O2	13.9771	50/50	13.9771
962162	AG1-061 E O2	9.3180	50/50	9.3180
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O2	9.4299	Adder	20.93
962382	AG1-087 E O2	25.4370	Adder	56.46
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O2	3.1865	Adder	7.07
965612	AG1-429 E O2	2.1237	Adder	4.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965821	AG1-450	5.7923	50/50	5.7923
965921	AG1-461 C O2	1.7107	Adder	3.8
965922	AG1-461 E O2	0.9211	Adder	2.04
965951	AG1-464 C O2	1.7512	Adder	3.89
965952	AG1-464 E O2	2.6268	Adder	5.83
966281	AG1-497 C O2	3.9481	Adder	8.76
966282	AG1-497 E O2	1.6920	Adder	3.76
966601	AG1-529 C	3.8100	Adder	8.46
966602	AG1-529 E	2.0336	Adder	4.51
CALDERWOOD	CALDERWOOD	0.0924	Confirmed LTF	0.0924
NY	NY	0.0586	Confirmed LTF	0.0586
PRAIRIE	PRAIRIE	0.4779	Confirmed LTF	0.4779
O-066	O-066	0.4576	Confirmed LTF	0.4576
CHEOAH	CHEOAH	0.0931	Confirmed LTF	0.0931
COTTONWOOD	COTTONWOOD	0.3906	Confirmed LTF	0.3906
G-007	G-007	0.0378	Confirmed LTF	0.0378
HAMLET	HAMLET	0.1091	Confirmed LTF	0.1091
GIBSON	GIBSON	0.1010	Confirmed LTF	0.1010
BLUEG	BLUEG	0.3212	Confirmed LTF	0.3212
TRIMBLE	TRIMBLE	0.1030	Confirmed LTF	0.1030
CATAWBA	CATAWBA	0.0658	Confirmed LTF	0.0658

13.5.28 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
174170053	232112	FELTON	DP&L	232110	CHESWOLD	DP&L	1	DPL_P4-2_DP11	breaker	242.0	101.52	110.18	DC	46.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.0849	50/50	0.0849
232405	W1-003 E	1.2883	Adder	1.52
232407	W1-004 E	1.2883	Adder	1.52
232409	W1-005 E	1.2883	Adder	1.52
232411	W1-006 E	1.2883	Adder	1.52
232412	X1-032 E	0.4891	50/50	0.4891
232418	X3-008 E	0.9043	Adder	1.06
232427	Y1-080 E	0.1924	Adder	0.23
232428	Y3-058 C	0.1105	50/50	0.1105
232429	Y3-058 E	0.7499	50/50	0.7499
232432	Z2-076 C	0.0799	50/50	0.0799
232433	Z2-076 E	0.2552	50/50	0.2552
232434	Z2-077 C	0.0799	50/50	0.0799
232435	Z2-077 E	0.2552	50/50	0.2552
232851	DUP-SFR1	1.7360	50/50	1.7360
232905	BAYVIEW1	0.2411	50/50	0.2411
232916	OH NUG5	0.6985	50/50	0.6985
232920	IR10	0.3219	50/50	0.3219
232921	TASLEY2G	0.4642	50/50	0.4642
232922	MR3 (Deactivation : 01/06/2021)	4.9081	Adder	5.77
232926	CRISFLD1	0.1929	50/50	0.1929
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.0843	50/50	0.0843
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2291	50/50	0.2291
233923	AA1-102 C	1.0996	50/50	1.0996
293670	O-025 C	0.1187	50/50	0.1187
917081	CHERRYDALE C	0.1466	50/50	0.1466
917082	CHERRYDALE E	1.5159	50/50	1.5159
918835	AA1-102 E	11.3720	50/50	11.3720
919831	AA2-069 (Suspended)	21.7014	Adder	25.53
924681	AB2-120 C	3.9477	Adder	4.64
924682	AB2-120 E	6.4410	Adder	7.58
924781	AB2-130 C O1	4.7555	50/50	4.7555
924782	AB2-130 E O1	7.7590	50/50	7.7590
924831	AB2-136 C	2.0601	Adder	2.42
924832	AB2-136 E	2.1848	Adder	2.57
925151	AB2-172 C	1.3857	Adder	1.63
925152	AB2-172 E	2.2608	Adder	2.66
925261	AB2-180 C	1.7210	50/50	1.7210
925262	AB2-180 E	0.7376	50/50	0.7376

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	2.6156	Adder	3.08
927032	AC1-190 E	1.1210	Adder	1.32
927191	AC1-213 C	0.4012	50/50	0.4012
927192	AC1-213 E	0.2633	50/50	0.2633
930201	AB1-056 C	6.6137	Adder	7.78
930202	AB1-056 E	18.8346	Adder	22.16
932161	AC2-023 C	2.7325	Adder	3.21
932162	AC2-023 E	1.9901	Adder	2.34
933641	AC2-186 C	2.8031	50/50	2.8031
933642	AC2-186 E	4.5734	50/50	4.5734
938651	AE1-087 C	1.1669	Adder	1.37
938652	AE1-087 E	0.2917	Adder	0.34
938895	AE1-117 C	6.0998	50/50	6.0998
938896	AE1-117 E	16.2662	50/50	16.2662
939151	AE1-145	2.4452	50/50	2.4452
942441	AE2-257 C	4.1735	50/50	4.1735
942442	AE2-257 E	11.0029	50/50	11.0029
943361	AF1-007 C	0.1951	Adder	0.23
943362	AF1-007 E	0.5546	Adder	0.65
945661	AF1-231 C	0.7896	Adder	0.93
945662	AF1-231 E	1.1844	Adder	1.39
945791	AF1-244	0.9782	50/50	0.9782
945931	AF1-258	0.3934	50/50	0.3934
957611	AF2-055 C	4.2787	50/50	4.2787
957612	AF2-055 E	1.8338	50/50	1.8338
957661	AF2-060	1.1003	50/50	1.1003
957671	AF2-061 O1	4.8904	50/50	4.8904
959021	AF2-193 C	12.2209	Adder	14.38
959022	AF2-193 E	32.9657	Adder	38.78
959031	AF2-194 C	12.2209	Adder	14.38
959032	AF2-194 E	32.9657	Adder	38.78
959051	AF2-196 C	1.1382	50/50	1.1382
959052	AF2-196 E	2.6559	50/50	2.6559
959161	AF2-207 C O1	2.6754	50/50	2.6754
959162	AF2-207 E O1	4.0132	50/50	4.0132
959571	AF2-248 C	0.4420	50/50	0.4420
959572	AF2-248 E	0.4940	50/50	0.4940
959581	AF2-249 C	0.0780	50/50	0.0780
959582	AF2-249 E	0.3120	50/50	0.3120
959591	AF2-250 C	0.1430	50/50	0.1430
959592	AF2-250 E	0.1105	50/50	0.1105
960341	AF2-325 C	0.3337	Adder	0.39
960342	AF2-325 E	0.4608	Adder	0.54
960671	AF2-358 C O1	5.5911	Adder	6.58
960672	AF2-358 E O1	3.7274	Adder	4.39
960871	AF2-378 C	0.0904	Adder	0.11
960872	AF2-378 E	0.1254	Adder	0.15
960881	AF2-379 C	0.2022	50/50	0.2022
960882	AF2-379 E	0.2787	50/50	0.2787
960941	AF2-385 C	6.3435	50/50	6.3435
960942	AF2-385 E	3.6097	50/50	3.6097
961181	AF2-409 O1	10.3420	Adder	12.17

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962161	AG1-061 C O2	8.1549	50/50	8.1549
962162	AG1-061 E O2	5.4366	50/50	5.4366
962381	AG1-087 C O2	5.7180	Adder	12.69
962382	AG1-087 E O2	15.4242	Adder	34.24
963001	AG1-149	0.3668	50/50	0.3668
963011	AG1-150	4.8904	50/50	4.8904
964551	AG1-318 C	0.0381	50/50	0.0381
964552	AG1-318 E	0.0890	50/50	0.0890
964962	AG1-360 E	1.0699	50/50	1.0699
965321	AG1-397 C	0.5272	50/50	0.5272
965322	AG1-397 E	0.7272	50/50	0.7272
965611	AG1-429 C O2	4.3105	50/50	4.3105
965612	AG1-429 E O2	2.8729	50/50	2.8729
965821	AG1-450	1.2138	Adder	2.69
965921	AG1-461 C O2	2.7628	50/50	2.7628
965922	AG1-461 E O2	1.4876	50/50	1.4876
965951	AG1-464 C O2	2.9506	50/50	2.9506
965952	AG1-464 E O2	4.4259	50/50	4.4259
966281	AG1-497 C O2	2.1422	Adder	4.76
966282	AG1-497 E O2	0.9181	Adder	2.04
966601	AG1-529 C	10.0607	50/50	10.0607
966602	AG1-529 E	5.3698	50/50	5.3698
CALDERWOOD	CALDERWOOD	0.0328	Confirmed LTF	0.0328
NY	NY	0.0343	Confirmed LTF	0.0343
PRAIRIE	PRAIRIE	0.1705	Confirmed LTF	0.1705
O-066	O-066	0.4038	Confirmed LTF	0.4038
CHEOAH	CHEOAH	0.0330	Confirmed LTF	0.0330
COTTONWOOD	COTTONWOOD	0.1386	Confirmed LTF	0.1386
G-007	G-007	0.0609	Confirmed LTF	0.0609
HAMLET	HAMLET	0.0381	Confirmed LTF	0.0381
GIBSON	GIBSON	0.0360	Confirmed LTF	0.0360
BLUEG	BLUEG	0.1146	Confirmed LTF	0.1146
TRIMBLE	TRIMBLE	0.0367	Confirmed LTF	0.0367
CATAWBA	CATAWBA	0.0231	Confirmed LTF	0.0231

13.5.29 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
174170024	232114	SHARNGTN	DP&L	232112	FELTON	DP&L	1	DPL_P4-2_DP11	breaker	242.0	110.24	118.9	DC	46.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.0849	50/50	0.0849
232405	W1-003 E	1.2883	Adder	1.52
232407	W1-004 E	1.2883	Adder	1.52
232409	W1-005 E	1.2883	Adder	1.52
232411	W1-006 E	1.2883	Adder	1.52
232412	X1-032 E	0.4891	50/50	0.4891
232418	X3-008 E	0.9043	Adder	1.06
232427	Y1-080 E	0.1924	Adder	0.23
232428	Y3-058 C	0.1105	50/50	0.1105
232429	Y3-058 E	0.7499	50/50	0.7499
232432	Z2-076 C	0.0799	50/50	0.0799
232433	Z2-076 E	0.2552	50/50	0.2552
232434	Z2-077 C	0.0799	50/50	0.0799
232435	Z2-077 E	0.2552	50/50	0.2552
232851	DUP-SFR1	1.7360	50/50	1.7360
232905	BAYVIEW1	0.2411	50/50	0.2411
232916	OH NUG5	0.6985	50/50	0.6985
232920	IR10	0.3219	50/50	0.3219
232921	TASLEY2G	0.4642	50/50	0.4642
232922	MR3 (Deactivation : 01/06/2021)	4.9081	Adder	5.77
232926	CRISFLD1	0.1929	50/50	0.1929
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.0843	50/50	0.0843
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2291	50/50	0.2291
233923	AA1-102 C	1.0996	50/50	1.0996
293670	O-025 C	0.1187	50/50	0.1187
917081	CHERRYDALE C	0.1466	50/50	0.1466
917082	CHERRYDALE E	1.5159	50/50	1.5159
918835	AA1-102 E	11.3720	50/50	11.3720
919831	AA2-069 (Suspended)	21.7014	Adder	25.53
924681	AB2-120 C	3.9477	Adder	4.64
924682	AB2-120 E	6.4410	Adder	7.58
924781	AB2-130 C O1	4.7555	50/50	4.7555
924782	AB2-130 E O1	7.7590	50/50	7.7590
924831	AB2-136 C	2.0601	Adder	2.42
924832	AB2-136 E	2.1848	Adder	2.57
925151	AB2-172 C	1.3857	Adder	1.63
925152	AB2-172 E	2.2608	Adder	2.66
925261	AB2-180 C	1.7210	50/50	1.7210
925262	AB2-180 E	0.7376	50/50	0.7376

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	2.6156	Adder	3.08
927032	AC1-190 E	1.1210	Adder	1.32
927191	AC1-213 C	0.4012	50/50	0.4012
927192	AC1-213 E	0.2633	50/50	0.2633
930201	AB1-056 C	6.6137	Adder	7.78
930202	AB1-056 E	18.8346	Adder	22.16
932161	AC2-023 C	2.7325	Adder	3.21
932162	AC2-023 E	1.9901	Adder	2.34
933641	AC2-186 C	2.8031	50/50	2.8031
933642	AC2-186 E	4.5734	50/50	4.5734
938651	AE1-087 C	1.1669	Adder	1.37
938652	AE1-087 E	0.2917	Adder	0.34
938895	AE1-117 C	6.0998	50/50	6.0998
938896	AE1-117 E	16.2662	50/50	16.2662
939151	AE1-145	2.4452	50/50	2.4452
942441	AE2-257 C	4.1735	50/50	4.1735
942442	AE2-257 E	11.0029	50/50	11.0029
943361	AF1-007 C	0.1951	Adder	0.23
943362	AF1-007 E	0.5546	Adder	0.65
945661	AF1-231 C	0.7896	Adder	0.93
945662	AF1-231 E	1.1844	Adder	1.39
945791	AF1-244	0.9782	50/50	0.9782
945931	AF1-258	0.3934	50/50	0.3934
957611	AF2-055 C	4.2787	50/50	4.2787
957612	AF2-055 E	1.8338	50/50	1.8338
957661	AF2-060	1.1003	50/50	1.1003
957671	AF2-061 O1	4.8904	50/50	4.8904
959021	AF2-193 C	12.2209	Adder	14.38
959022	AF2-193 E	32.9657	Adder	38.78
959031	AF2-194 C	12.2209	Adder	14.38
959032	AF2-194 E	32.9657	Adder	38.78
959051	AF2-196 C	1.1382	50/50	1.1382
959052	AF2-196 E	2.6559	50/50	2.6559
959161	AF2-207 C O1	2.6754	50/50	2.6754
959162	AF2-207 E O1	4.0132	50/50	4.0132
959571	AF2-248 C	0.4420	50/50	0.4420
959572	AF2-248 E	0.4940	50/50	0.4940
959581	AF2-249 C	0.0780	50/50	0.0780
959582	AF2-249 E	0.3120	50/50	0.3120
959591	AF2-250 C	0.1430	50/50	0.1430
959592	AF2-250 E	0.1105	50/50	0.1105
960341	AF2-325 C	0.3337	Adder	0.39
960342	AF2-325 E	0.4608	Adder	0.54
960671	AF2-358 C O1	5.5911	Adder	6.58
960672	AF2-358 E O1	3.7274	Adder	4.39
960871	AF2-378 C	0.0904	Adder	0.11
960872	AF2-378 E	0.1254	Adder	0.15
960881	AF2-379 C	0.2022	50/50	0.2022
960882	AF2-379 E	0.2787	50/50	0.2787
960941	AF2-385 C	6.3435	50/50	6.3435
960942	AF2-385 E	3.6097	50/50	3.6097
961181	AF2-409 O1	10.3420	Adder	12.17

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962161	AG1-061 C O2	8.1549	50/50	8.1549
962162	AG1-061 E O2	5.4366	50/50	5.4366
962381	AG1-087 C O2	5.7180	Adder	12.69
962382	AG1-087 E O2	15.4242	Adder	34.24
963001	AG1-149	0.3668	50/50	0.3668
963011	AG1-150	4.8904	50/50	4.8904
964551	AG1-318 C	0.0381	50/50	0.0381
964552	AG1-318 E	0.0890	50/50	0.0890
964962	AG1-360 E	1.0699	50/50	1.0699
965321	AG1-397 C	0.5272	50/50	0.5272
965322	AG1-397 E	0.7272	50/50	0.7272
965611	AG1-429 C O2	4.3105	50/50	4.3105
965612	AG1-429 E O2	2.8729	50/50	2.8729
965821	AG1-450	1.2138	Adder	2.69
965921	AG1-461 C O2	2.7628	50/50	2.7628
965922	AG1-461 E O2	1.4876	50/50	1.4876
965951	AG1-464 C O2	2.9506	50/50	2.9506
965952	AG1-464 E O2	4.4259	50/50	4.4259
966281	AG1-497 C O2	2.1422	Adder	4.76
966282	AG1-497 E O2	0.9181	Adder	2.04
966601	AG1-529 C	10.0607	50/50	10.0607
966602	AG1-529 E	5.3698	50/50	5.3698
CALDERWOOD	CALDERWOOD	0.0328	Confirmed LTF	0.0328
NY	NY	0.0343	Confirmed LTF	0.0343
PRAIRIE	PRAIRIE	0.1705	Confirmed LTF	0.1705
O-066	O-066	0.4038	Confirmed LTF	0.4038
CHEOAH	CHEOAH	0.0330	Confirmed LTF	0.0330
COTTONWOOD	COTTONWOOD	0.1386	Confirmed LTF	0.1386
G-007	G-007	0.0609	Confirmed LTF	0.0609
HAMLET	HAMLET	0.0381	Confirmed LTF	0.0381
GIBSON	GIBSON	0.0360	Confirmed LTF	0.0360
BLUEG	BLUEG	0.1146	Confirmed LTF	0.1146
TRIMBLE	TRIMBLE	0.0367	Confirmed LTF	0.0367
CATAWBA	CATAWBA	0.0231	Confirmed LTF	0.0231

13.5.30 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
174169917	232215	KENT	DP&L	232812	NMEREDTH	DP&L	1	DPL_P4-2_DP11	breaker	93.0	152.36	163.91	DC	23.79

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.5784	Adder	0.68
232407	W1-004 E	0.5784	Adder	0.68
232409	W1-005 E	0.5784	Adder	0.68
232411	W1-006 E	0.5784	Adder	0.68
232412	X1-032 E	0.1854	Adder	0.22
232429	Y3-058 E	0.2707	Adder	0.32
232433	Z2-076 E	0.0994	Adder	0.12
232435	Z2-077 E	0.0994	Adder	0.12
232813	VAUGHN	0.1161	50/50	0.1161
232851	DUP-SFR1	0.6650	Adder	0.78
232899	W1-062	0.8585	50/50	0.8585
232900	DEMECSMY	0.8410	50/50	0.8410
232910	NRG_G1	2.1081	50/50	2.1081
232911	NRG_G2	2.1081	50/50	2.1081
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.0899	Adder	0.11
233931	AB2-179 C	-2.0882	Adder	-2.46
917082	CHERRYDALE E	0.5786	Adder	0.68
918835	AA1-102 E	4.3051	Adder	5.06
923921	AB2-032 C	-1.1696	Adder	-1.38
924681	AB2-120 C	1.7742	Adder	2.09
924682	AB2-120 E	2.8948	Adder	3.41
924781	AB2-130 C O1	1.7892	Adder	2.1
924782	AB2-130 E O1	2.9193	Adder	3.43
924971	AB2-153 C	-0.6536	Adder	-0.77
925261	AB2-180 C	0.6213	Adder	0.73
925262	AB2-180 E	0.2663	Adder	0.31
926131	AC1-091 C	0.4484	Adder	0.53
926132	AC1-091 E	0.7354	Adder	0.87
926141	AC1-092 C	0.4484	Adder	0.53
926142	AC1-092 E	0.7354	Adder	0.87
926151	AC1-093 C	0.4245	Adder	0.5
926152	AC1-093 E	0.6995	Adder	0.82
926161	AC1-094 C	0.3587	Adder	0.42
926162	AC1-094 E	0.5919	Adder	0.7
927191	AC1-213 C	0.1486	Adder	0.17
927192	AC1-213 E	0.0975	Adder	0.11
930201	AB1-056 C	3.1284	Adder	3.68
930202	AB1-056 E	8.9091	Adder	10.48
932161	AC2-023 C	1.1398	Adder	1.34
932162	AC2-023 E	0.8301	Adder	0.98
933631	AC2-185 C	0.9088	Adder	1.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933632	AC2-185 E	1.4828	Adder	1.74
933641	AC2-186 C	2.8454	50/50	2.8454
933642	AC2-186 E	4.6426	50/50	4.6426
938895	AE1-117 C	2.3958	Adder	2.82
938896	AE1-117 E	6.3887	Adder	7.52
939151	AE1-145	0.9338	Adder	1.1
942441	AE2-257 C	1.6443	Adder	1.93
942442	AE2-257 E	4.3349	Adder	5.1
943361	AF1-007 C	0.0923	Adder	0.11
943362	AF1-007 E	0.2623	Adder	0.31
945661	AF1-231 C	0.3547	Adder	0.42
945662	AF1-231 E	0.5320	Adder	0.63
945791	AF1-244	0.3703	Adder	0.44
945931	AF1-258	0.1420	Adder	0.17
945941	AF1-259	-0.0824	Adder	-0.1
957611	AF2-055 C	1.6333	Adder	1.92
957612	AF2-055 E	0.7000	Adder	0.82
957661	AF2-060	0.4202	Adder	0.49
957671	AF2-061 O1	1.8676	Adder	2.2
959021	AF2-193 C	5.7807	Adder	6.8
959022	AF2-193 E	15.5934	Adder	18.35
959031	AF2-194 C	5.7807	Adder	6.8
959032	AF2-194 E	15.5934	Adder	18.35
959051	AF2-196 C	0.4484	Adder	0.53
959052	AF2-196 E	1.0464	Adder	1.23
959161	AF2-207 C O1	0.9997	Adder	1.18
959162	AF2-207 E O1	1.4996	Adder	1.76
959571	AF2-248 C	0.1646	Adder	0.19
959572	AF2-248 E	0.1840	Adder	0.22
959581	AF2-249 C	0.0291	Adder	0.03
959582	AF2-249 E	0.1162	Adder	0.14
959591	AF2-250 C	0.0533	Adder	0.06
959592	AF2-250 E	0.0412	Adder	0.05
960881	AF2-379 C	0.0758	Adder	0.09
960882	AF2-379 E	0.1044	Adder	0.12
960941	AF2-385 C	2.3704	Adder	2.79
960942	AF2-385 E	1.3488	Adder	1.59
961181	AF2-409 O1	4.4200	Adder	5.2
962161	AG1-061 C O2	1.6039	Adder	3.56
962162	AG1-061 E O2	1.0693	Adder	2.37
962262	AG1-072 BAT	1.5911	Merchant Transmission	1.5911
962381	AG1-087 C O2	2.8987	Adder	6.43
962382	AG1-087 E O2	7.8191	Adder	17.36
963001	AG1-149	0.0736	Adder	0.16
963011	AG1-150	0.9898	Adder	2.2
964551	AG1-318 C	0.0079	Adder	0.02
964552	AG1-318 E	0.0185	Adder	0.04
964962	AG1-360 E	0.2150	Adder	0.48
965321	AG1-397 C	0.1050	Adder	0.23
965322	AG1-397 E	0.1448	Adder	0.32
965611	AG1-429 C O2	0.8721	Adder	1.94
965612	AG1-429 E O2	0.5812	Adder	1.29

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965921	AG1-461 C O2	0.5581	Adder	1.24
965922	AG1-461 E O2	0.3005	Adder	0.67
965951	AG1-464 C O2	2.9952	50/50	2.9952
965952	AG1-464 E O2	4.4928	50/50	4.4928
966601	AG1-529 C	1.7507	Adder	3.89
966602	AG1-529 E	0.9344	Adder	2.07
G-007A	G-007A	0.0048	Confirmed LTF	0.0048
CALDERWOOD	CALDERWOOD	0.0318	Confirmed LTF	0.0318
NY	NY	0.0155	Confirmed LTF	0.0155
PRAIRIE	PRAIRIE	0.1653	Confirmed LTF	0.1653
O-066	O-066	0.0673	Confirmed LTF	0.0673
CHEOAH	CHEOAH	0.0320	Confirmed LTF	0.0320
COTTONWOOD	COTTONWOOD	0.1344	Confirmed LTF	0.1344
HAMLET	HAMLET	0.0375	Confirmed LTF	0.0375
GIBSON	GIBSON	0.0344	Confirmed LTF	0.0344
BLUEG	BLUEG	0.1094	Confirmed LTF	0.1094
TRIMBLE	TRIMBLE	0.0351	Confirmed LTF	0.0351
CATAWBA	CATAWBA	0.0228	Confirmed LTF	0.0228

13.5.31 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
174169968	232230	TRAP ALT	DP&L	232232	TRAPPETP	DP&L	1	DPL_P4-2_DP11	breaker	173.0	138.03	143.84	DC	22.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2229	50/50	0.2229
232405	W1-003 E	1.3113	50/50	1.3113
232406	W1-004 C	0.2229	50/50	0.2229
232407	W1-004 E	1.3113	50/50	1.3113
232408	W1-005 C	0.2229	50/50	0.2229
232409	W1-005 E	1.3113	50/50	1.3113
232410	W1-006 C	0.2229	50/50	0.2229
232411	W1-006 E	1.3113	50/50	1.3113
232412	X1-032 E	0.4404	50/50	0.4404
232417	X3-008 C	0.4489	50/50	0.4489
232418	X3-008 E	4.6428	50/50	4.6428
232426	Y1-080 FULL	0.0495	50/50	0.0495
232427	Y1-080 E	0.5151	50/50	0.5151
232428	Y3-058 C	0.1289	50/50	0.1289
232429	Y3-058 E	0.8745	50/50	0.8745
232433	Z2-076 E	0.1416	Adder	0.17
232435	Z2-077 E	0.1416	Adder	0.17
232851	DUP-SFR1	0.7568	Adder	0.89
232905	BAYVIEW1	0.2081	50/50	0.2081
232907	VN8	3.3408	50/50	3.3408
232915	OH NUG4	0.6031	50/50	0.6031
232916	OH NUG5	0.6031	50/50	0.6031
232919	VN10	0.3728	50/50	0.3728
232921	TASLEY2G	0.4008	50/50	0.4008
232926	CRISFLD1	0.1754	50/50	0.1754
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1156	Adder	0.14
233923	AA1-102 C	0.9996	50/50	0.9996
293670	O-025 C	0.1185	50/50	0.1185
917081	CHERRYDALE C	0.1265	50/50	0.1265
917082	CHERRYDALE E	1.3087	50/50	1.3087
918835	AA1-102 E	10.3379	50/50	10.3379
924681	AB2-120 C	3.3921	Adder	3.99
924682	AB2-120 E	5.5346	Adder	6.51
924781	AB2-130 C O1	3.6014	50/50	3.6014
924782	AB2-130 E O1	5.8761	50/50	5.8761
924831	AB2-136 C	7.5466	50/50	7.5466
924832	AB2-136 E	8.0031	50/50	8.0031
925151	AB2-172 C	7.1140	50/50	7.1140
925152	AB2-172 E	11.6070	50/50	11.6070
925261	AB2-180 C	2.0070	50/50	2.0070
925262	AB2-180 E	0.8602	50/50	0.8602

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	12.6686	50/50	12.6686
927032	AC1-190 E	5.4294	50/50	5.4294
927191	AC1-213 C	0.4007	50/50	0.4007
927192	AC1-213 E	0.2630	50/50	0.2630
930201	AB1-056 C	3.8488	Adder	4.53
930202	AB1-056 E	10.9606	Adder	12.89
932161	AC2-023 C	4.1181	50/50	4.1181
932162	AC2-023 E	2.9992	50/50	2.9992
938651	AE1-087 C	5.9907	50/50	5.9907
938652	AE1-087 E	1.4977	50/50	1.4977
938895	AE1-117 C	3.0910	Adder	3.64
938896	AE1-117 E	8.2427	Adder	9.7
939151	AE1-145	1.7894	Adder	2.11
942441	AE2-257 C	2.1038	Adder	2.48
942442	AE2-257 E	5.5463	Adder	6.53
943361	AF1-007 C	0.1136	Adder	0.13
943362	AF1-007 E	0.3227	Adder	0.38
945661	AF1-231 C	0.6817	Adder	0.8
945662	AF1-231 E	1.0226	Adder	1.2
945791	AF1-244	0.8893	50/50	0.8893
945931	AF1-258	0.4588	50/50	0.4588
957611	AF2-055 C	3.6939	50/50	3.6939
957612	AF2-055 E	1.5831	50/50	1.5831
957661	AF2-060	0.8052	Adder	0.95
957671	AF2-061 O1	3.5788	Adder	4.21
959021	AF2-193 C	7.1119	Adder	8.37
959022	AF2-193 E	19.1841	Adder	22.57
959031	AF2-194 C	7.1119	Adder	8.37
959032	AF2-194 E	19.1841	Adder	22.57
959051	AF2-196 C	0.5738	Adder	0.68
959052	AF2-196 E	1.3388	Adder	1.58
959161	AF2-207 C O1	2.3742	50/50	2.3742
959162	AF2-207 E O1	3.5614	50/50	3.5614
959571	AF2-248 C	0.4098	50/50	0.4098
959572	AF2-248 E	0.4580	50/50	0.4580
959581	AF2-249 C	0.0723	50/50	0.0723
959582	AF2-249 E	0.2893	50/50	0.2893
959591	AF2-250 C	0.1326	50/50	0.1326
959592	AF2-250 E	0.1025	50/50	0.1025
960341	AF2-325 C	1.3834	50/50	1.3834
960342	AF2-325 E	1.9105	50/50	1.9105
960671	AF2-358 C O1	14.0592	50/50	14.0592
960672	AF2-358 E O1	9.3728	50/50	9.3728
960871	AF2-378 C	0.3506	50/50	0.3506
960872	AF2-378 E	0.4864	50/50	0.4864
960881	AF2-379 C	0.1928	50/50	0.1928
960882	AF2-379 E	0.2658	50/50	0.2658
960941	AF2-385 C	5.6294	50/50	5.6294
960942	AF2-385 E	3.2033	50/50	3.2033
961181	AF2-409 O1	13.8400	50/50	13.8400
962161	AG1-061 C O2	8.0257	50/50	8.0257
962162	AG1-061 E O2	5.3505	50/50	5.3505

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962262	AG1-072 BAT	1.4119	Merchant Transmission	1.4119
962381	AG1-087 C O2	2.7518	Adder	6.11
962382	AG1-087 E O2	7.4229	Adder	16.48
963001	AG1-149	0.3335	50/50	0.3335
963011	AG1-150	1.8968	Adder	4.21
964551	AG1-318 C	0.0104	Adder	0.02
964552	AG1-318 E	0.0242	Adder	0.05
964962	AG1-360 E	0.9634	50/50	0.9634
965321	AG1-397 C	0.4754	50/50	0.4754
965322	AG1-397 E	0.6557	50/50	0.6557
965611	AG1-429 C O2	3.7213	50/50	3.7213
965612	AG1-429 E O2	2.4802	50/50	2.4802
965821	AG1-450	6.1320	50/50	6.1320
965921	AG1-461 C O2	0.9014	Adder	2.0
965922	AG1-461 E O2	0.4854	Adder	1.08
966601	AG1-529 C	1.1336	Adder	2.52
966602	AG1-529 E	0.6051	Adder	1.34
CALDERWOOD	CALDERWOOD	0.0333	Confirmed LTF	0.0333
NY	NY	0.0238	Confirmed LTF	0.0238
PRAIRIE	PRAIRIE	0.1731	Confirmed LTF	0.1731
O-066	O-066	0.2154	Confirmed LTF	0.2154
CHEOAH	CHEOAH	0.0335	Confirmed LTF	0.0335
COTTONWOOD	COTTONWOOD	0.1407	Confirmed LTF	0.1407
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0393	Confirmed LTF	0.0393
GIBSON	GIBSON	0.0366	Confirmed LTF	0.0366
BLUEG	BLUEG	0.1163	Confirmed LTF	0.1163
TRIMBLE	TRIMBLE	0.0373	Confirmed LTF	0.0373
CATAWBA	CATAWBA	0.0234	Confirmed LTF	0.0234

13.5.32 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
174169966	232232	TRAPPETP	DP&L	232227	EASTN_69	DP&L	1	DPL_P4-2_DP11	breaker	173.0	138.62	144.63	DC	23.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2308	50/50	0.2308
232405	W1-003 E	1.3577	50/50	1.3577
232406	W1-004 C	0.2308	50/50	0.2308
232407	W1-004 E	1.3577	50/50	1.3577
232408	W1-005 C	0.2308	50/50	0.2308
232409	W1-005 E	1.3577	50/50	1.3577
232410	W1-006 C	0.2308	50/50	0.2308
232411	W1-006 E	1.3577	50/50	1.3577
232412	X1-032 E	0.4560	50/50	0.4560
232417	X3-008 C	0.4648	50/50	0.4648
232418	X3-008 E	4.8072	50/50	4.8072
232426	Y1-080 FULL	0.0513	50/50	0.0513
232427	Y1-080 E	0.5333	50/50	0.5333
232428	Y3-058 C	0.1335	50/50	0.1335
232429	Y3-058 E	0.9055	50/50	0.9055
232433	Z2-076 E	0.1466	Adder	0.17
232435	Z2-077 E	0.1466	Adder	0.17
232851	DUP-SFR1	0.7835	Adder	0.92
232905	BAYVIEW1	0.2155	50/50	0.2155
232907	VN8	3.4591	50/50	3.4591
232915	OH NUG4	0.6245	50/50	0.6245
232916	OH NUG5	0.6245	50/50	0.6245
232919	VN10	0.3860	50/50	0.3860
232921	TASLEY2G	0.4150	50/50	0.4150
232926	CRISFLD1	0.1816	50/50	0.1816
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1197	Adder	0.14
233923	AA1-102 C	1.0351	50/50	1.0351
293670	O-025 C	0.1227	50/50	0.1227
917081	CHERRYDALE C	0.1310	50/50	0.1310
917082	CHERRYDALE E	1.3551	50/50	1.3551
918835	AA1-102 E	10.7043	50/50	10.7043
924681	AB2-120 C	3.5123	Adder	4.13
924682	AB2-120 E	5.7306	Adder	6.74
924781	AB2-130 C O1	3.7290	50/50	3.7290
924782	AB2-130 E O1	6.0842	50/50	6.0842
924831	AB2-136 C	7.8140	50/50	7.8140
924832	AB2-136 E	8.2866	50/50	8.2866
925151	AB2-172 C	7.3659	50/50	7.3659
925152	AB2-172 E	12.0181	50/50	12.0181
925261	AB2-180 C	2.0782	50/50	2.0782
925262	AB2-180 E	0.8906	50/50	0.8906

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	13.1173	50/50	13.1173
927032	AC1-190 E	5.6217	50/50	5.6217
927191	AC1-213 C	0.4149	50/50	0.4149
927192	AC1-213 E	0.2723	50/50	0.2723
930201	AB1-056 C	3.9851	Adder	4.69
930202	AB1-056 E	11.3488	Adder	13.35
932161	AC2-023 C	4.2638	50/50	4.2638
932162	AC2-023 E	3.1054	50/50	3.1054
938651	AE1-087 C	6.2029	50/50	6.2029
938652	AE1-087 E	1.5507	50/50	1.5507
938895	AE1-117 C	3.2004	Adder	3.77
938896	AE1-117 E	8.5343	Adder	10.04
939151	AE1-145	1.8528	Adder	2.18
942441	AE2-257 C	2.1784	Adder	2.56
942442	AE2-257 E	5.7430	Adder	6.76
943361	AF1-007 C	0.1176	Adder	0.14
943362	AF1-007 E	0.3342	Adder	0.39
945661	AF1-231 C	0.7059	Adder	0.83
945662	AF1-231 E	1.0588	Adder	1.25
945791	AF1-244	0.9208	50/50	0.9208
945931	AF1-258	0.4750	50/50	0.4750
957611	AF2-055 C	3.8248	50/50	3.8248
957612	AF2-055 E	1.6392	50/50	1.6392
957661	AF2-060	0.8338	Adder	0.98
957671	AF2-061 O1	3.7057	Adder	4.36
959021	AF2-193 C	7.3637	Adder	8.66
959022	AF2-193 E	19.8635	Adder	23.37
959031	AF2-194 C	7.3637	Adder	8.66
959032	AF2-194 E	19.8635	Adder	23.37
959051	AF2-196 C	0.5941	Adder	0.7
959052	AF2-196 E	1.3862	Adder	1.63
959161	AF2-207 C O1	2.4583	50/50	2.4583
959162	AF2-207 E O1	3.6875	50/50	3.6875
959571	AF2-248 C	0.4243	50/50	0.4243
959572	AF2-248 E	0.4742	50/50	0.4742
959581	AF2-249 C	0.0749	50/50	0.0749
959582	AF2-249 E	0.2995	50/50	0.2995
959591	AF2-250 C	0.1373	50/50	0.1373
959592	AF2-250 E	0.1061	50/50	0.1061
960341	AF2-325 C	1.4325	50/50	1.4325
960342	AF2-325 E	1.9781	50/50	1.9781
960671	AF2-358 C O1	14.5572	50/50	14.5572
960672	AF2-358 E O1	9.7048	50/50	9.7048
960871	AF2-378 C	0.3630	50/50	0.3630
960872	AF2-378 E	0.5036	50/50	0.5036
960881	AF2-379 C	0.1997	50/50	0.1997
960882	AF2-379 E	0.2752	50/50	0.2752
960941	AF2-385 C	5.8287	50/50	5.8287
960942	AF2-385 E	3.3168	50/50	3.3168
961181	AF2-409 O1	14.3300	50/50	14.3300
962161	AG1-061 C O2	8.3096	50/50	8.3096
962162	AG1-061 E O2	5.5398	50/50	5.5398

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962262	AG1-072 BAT	1.4620	Merchant Transmission	1.4620
962381	AG1-087 C O2	2.8493	Adder	6.32
962382	AG1-087 E O2	7.6860	Adder	17.06
963001	AG1-149	0.3453	50/50	0.3453
963011	AG1-150	1.9640	Adder	4.36
964551	AG1-318 C	0.0107	Adder	0.02
964552	AG1-318 E	0.0250	Adder	0.06
964962	AG1-360 E	0.9975	50/50	0.9975
965321	AG1-397 C	0.4922	50/50	0.4922
965322	AG1-397 E	0.6790	50/50	0.6790
965611	AG1-429 C O2	3.8532	50/50	3.8532
965612	AG1-429 E O2	2.5681	50/50	2.5681
965821	AG1-450	6.3492	50/50	6.3492
965921	AG1-461 C O2	0.9334	Adder	2.07
965922	AG1-461 E O2	0.5026	Adder	1.12
966601	AG1-529 C	1.1737	Adder	2.61
966602	AG1-529 E	0.6265	Adder	1.39
CALDERWOOD	CALDERWOOD	0.0343	Confirmed LTF	0.0343
NY	NY	0.0249	Confirmed LTF	0.0249
PRAIRIE	PRAIRIE	0.1782	Confirmed LTF	0.1782
O-066	O-066	0.2221	Confirmed LTF	0.2221
CHEOAH	CHEOAH	0.0345	Confirmed LTF	0.0345
COTTONWOOD	COTTONWOOD	0.1449	Confirmed LTF	0.1449
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0404	Confirmed LTF	0.0404
GIBSON	GIBSON	0.0377	Confirmed LTF	0.0377
BLUEG	BLUEG	0.1198	Confirmed LTF	0.1198
TRIMBLE	TRIMBLE	0.0384	Confirmed LTF	0.0384
CATAWBA	CATAWBA	0.0242	Confirmed LTF	0.0242

13.5.33 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
174169930	232233	PRESTON	DP&L	232821	TANYARD	DP&L	1	DPL_P4-2_DP11	breaker	173.0	152.89	158.91	DC	23.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2308	50/50	0.2308
232405	W1-003 E	1.3577	50/50	1.3577
232406	W1-004 C	0.2308	50/50	0.2308
232407	W1-004 E	1.3577	50/50	1.3577
232408	W1-005 C	0.2308	50/50	0.2308
232409	W1-005 E	1.3577	50/50	1.3577
232410	W1-006 C	0.2308	50/50	0.2308
232411	W1-006 E	1.3577	50/50	1.3577
232412	X1-032 E	0.4560	50/50	0.4560
232417	X3-008 C	0.4648	50/50	0.4648
232418	X3-008 E	4.8072	50/50	4.8072
232426	Y1-080 FULL	0.0513	50/50	0.0513
232427	Y1-080 E	0.5333	50/50	0.5333
232428	Y3-058 C	0.1335	50/50	0.1335
232429	Y3-058 E	0.9055	50/50	0.9055
232433	Z2-076 E	0.1466	Adder	0.17
232435	Z2-077 E	0.1466	Adder	0.17
232851	DUP-SFR1	0.7835	Adder	0.92
232905	BAYVIEW1	0.2155	50/50	0.2155
232907	VN8	3.4591	50/50	3.4591
232915	OH NUG4	0.6245	50/50	0.6245
232916	OH NUG5	0.6245	50/50	0.6245
232919	VN10	0.3860	50/50	0.3860
232921	TASLEY2G	0.4150	50/50	0.4150
232926	CRISFLD1	0.1816	50/50	0.1816
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1197	Adder	0.14
233923	AA1-102 C	1.0351	50/50	1.0351
293670	O-025 C	0.1227	50/50	0.1227
917081	CHERRYDALE C	0.1310	50/50	0.1310
917082	CHERRYDALE E	1.3551	50/50	1.3551
918835	AA1-102 E	10.7043	50/50	10.7043
924681	AB2-120 C	3.5123	Adder	4.13
924682	AB2-120 E	5.7306	Adder	6.74
924781	AB2-130 C O1	3.7290	50/50	3.7290
924782	AB2-130 E O1	6.0842	50/50	6.0842
924831	AB2-136 C	7.8140	50/50	7.8140
924832	AB2-136 E	8.2866	50/50	8.2866
925151	AB2-172 C	7.3659	50/50	7.3659
925152	AB2-172 E	12.0181	50/50	12.0181
925261	AB2-180 C	2.0782	50/50	2.0782
925262	AB2-180 E	0.8906	50/50	0.8906

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	13.1173	50/50	13.1173
927032	AC1-190 E	5.6217	50/50	5.6217
927191	AC1-213 C	0.4149	50/50	0.4149
927192	AC1-213 E	0.2723	50/50	0.2723
930201	AB1-056 C	3.9851	Adder	4.69
930202	AB1-056 E	11.3488	Adder	13.35
932161	AC2-023 C	4.2638	50/50	4.2638
932162	AC2-023 E	3.1054	50/50	3.1054
938651	AE1-087 C	6.2029	50/50	6.2029
938652	AE1-087 E	1.5507	50/50	1.5507
938895	AE1-117 C	3.2004	Adder	3.77
938896	AE1-117 E	8.5343	Adder	10.04
939151	AE1-145	1.8528	Adder	2.18
942441	AE2-257 C	2.1784	Adder	2.56
942442	AE2-257 E	5.7430	Adder	6.76
943361	AF1-007 C	0.1176	Adder	0.14
943362	AF1-007 E	0.3342	Adder	0.39
945661	AF1-231 C	0.7059	Adder	0.83
945662	AF1-231 E	1.0588	Adder	1.25
945791	AF1-244	0.9208	50/50	0.9208
945931	AF1-258	0.4750	50/50	0.4750
957611	AF2-055 C	3.8248	50/50	3.8248
957612	AF2-055 E	1.6392	50/50	1.6392
957661	AF2-060	0.8338	Adder	0.98
957671	AF2-061 O1	3.7057	Adder	4.36
959021	AF2-193 C	7.3637	Adder	8.66
959022	AF2-193 E	19.8635	Adder	23.37
959031	AF2-194 C	7.3637	Adder	8.66
959032	AF2-194 E	19.8635	Adder	23.37
959051	AF2-196 C	0.5941	Adder	0.7
959052	AF2-196 E	1.3862	Adder	1.63
959161	AF2-207 C O1	2.4583	50/50	2.4583
959162	AF2-207 E O1	3.6875	50/50	3.6875
959571	AF2-248 C	0.4243	50/50	0.4243
959572	AF2-248 E	0.4742	50/50	0.4742
959581	AF2-249 C	0.0749	50/50	0.0749
959582	AF2-249 E	0.2995	50/50	0.2995
959591	AF2-250 C	0.1373	50/50	0.1373
959592	AF2-250 E	0.1061	50/50	0.1061
960341	AF2-325 C	1.4325	50/50	1.4325
960342	AF2-325 E	1.9781	50/50	1.9781
960671	AF2-358 C O1	14.5572	50/50	14.5572
960672	AF2-358 E O1	9.7048	50/50	9.7048
960871	AF2-378 C	0.3630	50/50	0.3630
960872	AF2-378 E	0.5036	50/50	0.5036
960881	AF2-379 C	0.1997	50/50	0.1997
960882	AF2-379 E	0.2752	50/50	0.2752
960941	AF2-385 C	5.8287	50/50	5.8287
960942	AF2-385 E	3.3168	50/50	3.3168
961181	AF2-409 O1	14.3300	50/50	14.3300
962161	AG1-061 C O2	8.3096	50/50	8.3096
962162	AG1-061 E O2	5.5398	50/50	5.5398

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962262	AG1-072 BAT	1.4620	Merchant Transmission	1.4620
962381	AG1-087 C O2	2.8493	Adder	6.32
962382	AG1-087 E O2	7.6860	Adder	17.06
963001	AG1-149	0.3453	50/50	0.3453
963011	AG1-150	1.9640	Adder	4.36
964551	AG1-318 C	0.0107	Adder	0.02
964552	AG1-318 E	0.0250	Adder	0.06
964962	AG1-360 E	0.9975	50/50	0.9975
965321	AG1-397 C	0.4922	50/50	0.4922
965322	AG1-397 E	0.6790	50/50	0.6790
965611	AG1-429 C O2	3.8532	50/50	3.8532
965612	AG1-429 E O2	2.5681	50/50	2.5681
965821	AG1-450	6.3492	50/50	6.3492
965921	AG1-461 C O2	0.9334	Adder	2.07
965922	AG1-461 E O2	0.5026	Adder	1.12
966601	AG1-529 C	1.1737	Adder	2.61
966602	AG1-529 E	0.6265	Adder	1.39
CALDERWOOD	CALDERWOOD	0.0343	Confirmed LTF	0.0343
NY	NY	0.0249	Confirmed LTF	0.0249
PRAIRIE	PRAIRIE	0.1782	Confirmed LTF	0.1782
O-066	O-066	0.2221	Confirmed LTF	0.2221
CHEOAH	CHEOAH	0.0345	Confirmed LTF	0.0345
COTTONWOOD	COTTONWOOD	0.1449	Confirmed LTF	0.1449
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0404	Confirmed LTF	0.0404
GIBSON	GIBSON	0.0377	Confirmed LTF	0.0377
BLUEG	BLUEG	0.1198	Confirmed LTF	0.1198
TRIMBLE	TRIMBLE	0.0384	Confirmed LTF	0.0384
CATAWBA	CATAWBA	0.0242	Confirmed LTF	0.0242

13.5.34 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
173791788	232241	VIENN_69	DP&L	232838	MARDELA	DP&L	1	DPL_P4-2_DP6	breaker	64.0	141.48	145.27	DC	5.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232417	X3-008 C	0.1650	50/50	0.1650
232418	X3-008 E	1.7067	50/50	1.7067
232426	Y1-080 FULL	0.0337	50/50	0.0337
232427	Y1-080 E	0.3509	50/50	0.3509
232919	VN10	0.3200	50/50	0.3200
924831	AB2-136 C	3.8098	50/50	3.8098
924832	AB2-136 E	4.0402	50/50	4.0402
925151	AB2-172 C	2.6152	50/50	2.6152
925152	AB2-172 E	4.2668	50/50	4.2668
927031	AC1-190 C	4.9168	50/50	4.9168
927032	AC1-190 E	2.1072	50/50	2.1072
938651	AE1-087 C	2.2022	50/50	2.2022
938652	AE1-087 E	0.5506	50/50	0.5506
939152	AE1-145 BAT	1.2036	Merchant Transmission	1.2036
945663	AF1-231 BAT	1.1011	Merchant Transmission	1.1011
945792	AF1-244 BAT	0.4183	Merchant Transmission	0.4183
957613	AF2-055 BAT	1.7646	Merchant Transmission	1.7646
957662	AF2-060 BAT	0.5416	Merchant Transmission	0.5416
957672	AF2-061 BAT	2.4072	Merchant Transmission	2.4072
959163	AF2-207 BAT	4.3032	Merchant Transmission	4.3032
959583	AF2-249 BAT	0.3797	50/50	0.3797
960341	AF2-325 C	0.6212	50/50	0.6212
960342	AF2-325 E	0.8578	50/50	0.8578
960671	AF2-358 C O1	10.1748	50/50	10.1748
960672	AF2-358 E O1	6.7832	50/50	6.7832
960871	AF2-378 C	0.1676	50/50	0.1676
960872	AF2-378 E	0.2325	50/50	0.2325
960881	AF2-379 C	-0.1357	Adder	-0.16
962381	AG1-087 C O2	0.6562	Adder	1.46
962382	AG1-087 E O2	1.7700	Adder	3.93
963002	AG1-149 BAT	0.0831	Merchant Transmission	0.0831
963012	AG1-150 BAT	1.2758	Merchant Transmission	1.2758
965821	AG1-450	4.1770	50/50	4.1770
WEC	WEC	0.0072	Confirmed LTF	0.0072
LGEE	LGEE	0.0145	Confirmed LTF	0.0145
CPLE	CPLE	0.0157	Confirmed LTF	0.0157
G-007A	G-007A	0.0240	Confirmed LTF	0.0240
VFT	VFT	0.0774	Confirmed LTF	0.0774
CBM-W2	CBM-W2	0.2061	Confirmed LTF	0.2061
TVA	TVA	0.0322	Confirmed LTF	0.0322
SIGE	SIGE	0.0012	Confirmed LTF	0.0012
CBM-S2	CBM-S2	0.2401	Confirmed LTF	0.2401

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	0.0087	Confirmed LTF	0.0087
CBM-N	CBM-N	0.0168	Confirmed LTF	0.0168
MEC	MEC	0.0365	Confirmed LTF	0.0365
LAGN	LAGN	0.0403	Confirmed LTF	0.0403
CBM-W1	CBM-W1	0.3225	Confirmed LTF	0.3225

13.5.35 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
173975288	232812	NMEREDTH	DP&L	924820	AB2-135 TAP	DP&L	1	DPL_P4-2_DP11	breaker	93.0	131.77	143.32	DC	23.79

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.5784	Adder	0.68
232407	W1-004 E	0.5784	Adder	0.68
232409	W1-005 E	0.5784	Adder	0.68
232411	W1-006 E	0.5784	Adder	0.68
232412	X1-032 E	0.1854	Adder	0.22
232429	Y3-058 E	0.2707	Adder	0.32
232433	Z2-076 E	0.0994	Adder	0.12
232435	Z2-077 E	0.0994	Adder	0.12
232813	VAUGHN	0.1161	50/50	0.1161
232851	DUP-SFR1	0.6650	Adder	0.78
232899	W1-062	0.8585	50/50	0.8585
232900	DEMECSMY	0.8410	50/50	0.8410
232910	NRG_G1	2.1081	50/50	2.1081
232911	NRG_G2	2.1081	50/50	2.1081
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.0899	Adder	0.11
233931	AB2-179 C	-2.0882	Adder	-2.46
917082	CHERRYDALE E	0.5786	Adder	0.68
918835	AA1-102 E	4.3051	Adder	5.06
923921	AB2-032 C	-1.1696	Adder	-1.38
924681	AB2-120 C	1.7742	Adder	2.09
924682	AB2-120 E	2.8948	Adder	3.41
924781	AB2-130 C O1	1.7892	Adder	2.1
924782	AB2-130 E O1	2.9193	Adder	3.43
924971	AB2-153 C	-0.6536	Adder	-0.77
925261	AB2-180 C	0.6213	Adder	0.73
925262	AB2-180 E	0.2663	Adder	0.31
926131	AC1-091 C	0.4484	Adder	0.53
926132	AC1-091 E	0.7354	Adder	0.87
926141	AC1-092 C	0.4484	Adder	0.53
926142	AC1-092 E	0.7354	Adder	0.87
926151	AC1-093 C	0.4245	Adder	0.5
926152	AC1-093 E	0.6995	Adder	0.82
926161	AC1-094 C	0.3587	Adder	0.42
926162	AC1-094 E	0.5919	Adder	0.7
927191	AC1-213 C	0.1486	Adder	0.17
927192	AC1-213 E	0.0975	Adder	0.11
930201	AB1-056 C	3.1284	Adder	3.68
930202	AB1-056 E	8.9091	Adder	10.48
932161	AC2-023 C	1.1398	Adder	1.34
932162	AC2-023 E	0.8301	Adder	0.98
933631	AC2-185 C	0.9088	Adder	1.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933632	AC2-185 E	1.4828	Adder	1.74
933641	AC2-186 C	2.8454	50/50	2.8454
933642	AC2-186 E	4.6426	50/50	4.6426
938895	AE1-117 C	2.3958	Adder	2.82
938896	AE1-117 E	6.3887	Adder	7.52
939151	AE1-145	0.9338	Adder	1.1
942441	AE2-257 C	1.6443	Adder	1.93
942442	AE2-257 E	4.3349	Adder	5.1
943361	AF1-007 C	0.0923	Adder	0.11
943362	AF1-007 E	0.2623	Adder	0.31
945661	AF1-231 C	0.3547	Adder	0.42
945662	AF1-231 E	0.5320	Adder	0.63
945791	AF1-244	0.3703	Adder	0.44
945931	AF1-258	0.1420	Adder	0.17
945941	AF1-259	-0.0824	Adder	-0.1
957611	AF2-055 C	1.6333	Adder	1.92
957612	AF2-055 E	0.7000	Adder	0.82
957661	AF2-060	0.4202	Adder	0.49
957671	AF2-061 O1	1.8676	Adder	2.2
959021	AF2-193 C	5.7807	Adder	6.8
959022	AF2-193 E	15.5934	Adder	18.35
959031	AF2-194 C	5.7807	Adder	6.8
959032	AF2-194 E	15.5934	Adder	18.35
959051	AF2-196 C	0.4484	Adder	0.53
959052	AF2-196 E	1.0464	Adder	1.23
959161	AF2-207 C O1	0.9997	Adder	1.18
959162	AF2-207 E O1	1.4996	Adder	1.76
959571	AF2-248 C	0.1646	Adder	0.19
959572	AF2-248 E	0.1840	Adder	0.22
959581	AF2-249 C	0.0291	Adder	0.03
959582	AF2-249 E	0.1162	Adder	0.14
959591	AF2-250 C	0.0533	Adder	0.06
959592	AF2-250 E	0.0412	Adder	0.05
960881	AF2-379 C	0.0758	Adder	0.09
960882	AF2-379 E	0.1044	Adder	0.12
960941	AF2-385 C	2.3704	Adder	2.79
960942	AF2-385 E	1.3488	Adder	1.59
961181	AF2-409 O1	4.4200	Adder	5.2
962161	AG1-061 C O2	1.6039	Adder	3.56
962162	AG1-061 E O2	1.0693	Adder	2.37
962262	AG1-072 BAT	1.5911	Merchant Transmission	1.5911
962302	AG1-079 E	0.7528	50/50	0.7528
962381	AG1-087 C O2	2.8987	Adder	6.43
962382	AG1-087 E O2	7.8191	Adder	17.36
963001	AG1-149	0.0736	Adder	0.16
963011	AG1-150	0.9898	Adder	2.2
964551	AG1-318 C	0.0079	Adder	0.02
964552	AG1-318 E	0.0185	Adder	0.04
964962	AG1-360 E	0.2150	Adder	0.48
965321	AG1-397 C	0.1050	Adder	0.23
965322	AG1-397 E	0.1448	Adder	0.32
965611	AG1-429 C O2	0.8721	Adder	1.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965612	AG1-429 E O2	0.5812	Adder	1.29
965921	AG1-461 C O2	0.5581	Adder	1.24
965922	AG1-461 E O2	0.3005	Adder	0.67
965951	AG1-464 C O2	2.9952	50/50	2.9952
965952	AG1-464 E O2	4.4928	50/50	4.4928
966601	AG1-529 C	1.7507	Adder	3.89
966602	AG1-529 E	0.9344	Adder	2.07
G-007A	G-007A	0.0048	Confirmed LTF	0.0048
CALDERWOOD	CALDERWOOD	0.0318	Confirmed LTF	0.0318
NY	NY	0.0155	Confirmed LTF	0.0155
PRAIRIE	PRAIRIE	0.1653	Confirmed LTF	0.1653
O-066	O-066	0.0673	Confirmed LTF	0.0673
CHEOAH	CHEOAH	0.0320	Confirmed LTF	0.0320
COTTONWOOD	COTTONWOOD	0.1344	Confirmed LTF	0.1344
HAMLET	HAMLET	0.0375	Confirmed LTF	0.0375
GIBSON	GIBSON	0.0344	Confirmed LTF	0.0344
BLUEG	BLUEG	0.1094	Confirmed LTF	0.1094
TRIMBLE	TRIMBLE	0.0351	Confirmed LTF	0.0351
CATAWBA	CATAWBA	0.0228	Confirmed LTF	0.0228

13.5.36 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
174169947	232820	TALBOT	DP&L	232230	TRAP ALT	DP&L	1	DPL_P4-2_DP11	breaker	173.0	147.34	153.36	DC	23.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2308	50/50	0.2308
232405	W1-003 E	1.3577	50/50	1.3577
232406	W1-004 C	0.2308	50/50	0.2308
232407	W1-004 E	1.3577	50/50	1.3577
232408	W1-005 C	0.2308	50/50	0.2308
232409	W1-005 E	1.3577	50/50	1.3577
232410	W1-006 C	0.2308	50/50	0.2308
232411	W1-006 E	1.3577	50/50	1.3577
232412	X1-032 E	0.4560	50/50	0.4560
232417	X3-008 C	0.4648	50/50	0.4648
232418	X3-008 E	4.8072	50/50	4.8072
232426	Y1-080 FULL	0.0513	50/50	0.0513
232427	Y1-080 E	0.5333	50/50	0.5333
232428	Y3-058 C	0.1335	50/50	0.1335
232429	Y3-058 E	0.9055	50/50	0.9055
232433	Z2-076 E	0.1466	Adder	0.17
232435	Z2-077 E	0.1466	Adder	0.17
232851	DUP-SFR1	0.7835	Adder	0.92
232905	BAYVIEW1	0.2155	50/50	0.2155
232907	VN8	3.4591	50/50	3.4591
232915	OH NUG4	0.6245	50/50	0.6245
232916	OH NUG5	0.6245	50/50	0.6245
232919	VN10	0.3860	50/50	0.3860
232921	TASLEY2G	0.4150	50/50	0.4150
232926	CRISFLD1	0.1816	50/50	0.1816
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1197	Adder	0.14
233923	AA1-102 C	1.0351	50/50	1.0351
293670	O-025 C	0.1227	50/50	0.1227
917081	CHERRYDALE C	0.1310	50/50	0.1310
917082	CHERRYDALE E	1.3551	50/50	1.3551
918835	AA1-102 E	10.7043	50/50	10.7043
924681	AB2-120 C	3.5123	Adder	4.13
924682	AB2-120 E	5.7306	Adder	6.74
924781	AB2-130 C O1	3.7290	50/50	3.7290
924782	AB2-130 E O1	6.0842	50/50	6.0842
924831	AB2-136 C	7.8140	50/50	7.8140
924832	AB2-136 E	8.2866	50/50	8.2866
925151	AB2-172 C	7.3659	50/50	7.3659
925152	AB2-172 E	12.0181	50/50	12.0181
925261	AB2-180 C	2.0782	50/50	2.0782
925262	AB2-180 E	0.8906	50/50	0.8906

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	13.1173	50/50	13.1173
927032	AC1-190 E	5.6217	50/50	5.6217
927191	AC1-213 C	0.4149	50/50	0.4149
927192	AC1-213 E	0.2723	50/50	0.2723
930201	AB1-056 C	3.9851	Adder	4.69
930202	AB1-056 E	11.3488	Adder	13.35
932161	AC2-023 C	4.2638	50/50	4.2638
932162	AC2-023 E	3.1054	50/50	3.1054
938651	AE1-087 C	6.2029	50/50	6.2029
938652	AE1-087 E	1.5507	50/50	1.5507
938895	AE1-117 C	3.2004	Adder	3.77
938896	AE1-117 E	8.5343	Adder	10.04
939151	AE1-145	1.8528	Adder	2.18
942441	AE2-257 C	2.1784	Adder	2.56
942442	AE2-257 E	5.7430	Adder	6.76
943361	AF1-007 C	0.1176	Adder	0.14
943362	AF1-007 E	0.3342	Adder	0.39
945661	AF1-231 C	0.7059	Adder	0.83
945662	AF1-231 E	1.0588	Adder	1.25
945791	AF1-244	0.9208	50/50	0.9208
945931	AF1-258	0.4750	50/50	0.4750
957611	AF2-055 C	3.8248	50/50	3.8248
957612	AF2-055 E	1.6392	50/50	1.6392
957661	AF2-060	0.8338	Adder	0.98
957671	AF2-061 O1	3.7057	Adder	4.36
959021	AF2-193 C	7.3637	Adder	8.66
959022	AF2-193 E	19.8635	Adder	23.37
959031	AF2-194 C	7.3637	Adder	8.66
959032	AF2-194 E	19.8635	Adder	23.37
959051	AF2-196 C	0.5941	Adder	0.7
959052	AF2-196 E	1.3862	Adder	1.63
959161	AF2-207 C O1	2.4583	50/50	2.4583
959162	AF2-207 E O1	3.6875	50/50	3.6875
959571	AF2-248 C	0.4243	50/50	0.4243
959572	AF2-248 E	0.4742	50/50	0.4742
959581	AF2-249 C	0.0749	50/50	0.0749
959582	AF2-249 E	0.2995	50/50	0.2995
959591	AF2-250 C	0.1373	50/50	0.1373
959592	AF2-250 E	0.1061	50/50	0.1061
960341	AF2-325 C	1.4325	50/50	1.4325
960342	AF2-325 E	1.9781	50/50	1.9781
960671	AF2-358 C O1	14.5572	50/50	14.5572
960672	AF2-358 E O1	9.7048	50/50	9.7048
960871	AF2-378 C	0.3630	50/50	0.3630
960872	AF2-378 E	0.5036	50/50	0.5036
960881	AF2-379 C	0.1997	50/50	0.1997
960882	AF2-379 E	0.2752	50/50	0.2752
960941	AF2-385 C	5.8287	50/50	5.8287
960942	AF2-385 E	3.3168	50/50	3.3168
961181	AF2-409 O1	14.3300	50/50	14.3300
962161	AG1-061 C O2	8.3096	50/50	8.3096
962162	AG1-061 E O2	5.5398	50/50	5.5398

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962262	AG1-072 BAT	1.4620	Merchant Transmission	1.4620
962381	AG1-087 C O2	2.8493	Adder	6.32
962382	AG1-087 E O2	7.6860	Adder	17.06
963001	AG1-149	0.3453	50/50	0.3453
963011	AG1-150	1.9640	Adder	4.36
964551	AG1-318 C	0.0107	Adder	0.02
964552	AG1-318 E	0.0250	Adder	0.06
964962	AG1-360 E	0.9975	50/50	0.9975
965321	AG1-397 C	0.4922	50/50	0.4922
965322	AG1-397 E	0.6790	50/50	0.6790
965611	AG1-429 C O2	3.8532	50/50	3.8532
965612	AG1-429 E O2	2.5681	50/50	2.5681
965821	AG1-450	6.3492	50/50	6.3492
965921	AG1-461 C O2	0.9334	Adder	2.07
965922	AG1-461 E O2	0.5026	Adder	1.12
966601	AG1-529 C	1.1737	Adder	2.61
966602	AG1-529 E	0.6265	Adder	1.39
CALDERWOOD	CALDERWOOD	0.0343	Confirmed LTF	0.0343
NY	NY	0.0249	Confirmed LTF	0.0249
PRAIRIE	PRAIRIE	0.1782	Confirmed LTF	0.1782
O-066	O-066	0.2221	Confirmed LTF	0.2221
CHEOAH	CHEOAH	0.0345	Confirmed LTF	0.0345
COTTONWOOD	COTTONWOOD	0.1449	Confirmed LTF	0.1449
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0404	Confirmed LTF	0.0404
GIBSON	GIBSON	0.0377	Confirmed LTF	0.0377
BLUEG	BLUEG	0.1198	Confirmed LTF	0.1198
TRIMBLE	TRIMBLE	0.0384	Confirmed LTF	0.0384
CATAWBA	CATAWBA	0.0242	Confirmed LTF	0.0242

13.5.37 Index 37

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174169940	232821	TANYARD	DP&L	232820	TALBOT	DP&L	1	DPL_P4-2_DP11	breaker	173.0	149.83	155.84	DC	23.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2308	50/50	0.2308
232405	W1-003 E	1.3577	50/50	1.3577
232406	W1-004 C	0.2308	50/50	0.2308
232407	W1-004 E	1.3577	50/50	1.3577
232408	W1-005 C	0.2308	50/50	0.2308
232409	W1-005 E	1.3577	50/50	1.3577
232410	W1-006 C	0.2308	50/50	0.2308
232411	W1-006 E	1.3577	50/50	1.3577
232412	X1-032 E	0.4560	50/50	0.4560
232417	X3-008 C	0.4648	50/50	0.4648
232418	X3-008 E	4.8072	50/50	4.8072
232426	Y1-080 FULL	0.0513	50/50	0.0513
232427	Y1-080 E	0.5333	50/50	0.5333
232428	Y3-058 C	0.1335	50/50	0.1335
232429	Y3-058 E	0.9055	50/50	0.9055
232433	Z2-076 E	0.1466	Adder	0.17
232435	Z2-077 E	0.1466	Adder	0.17
232851	DUP-SFR1	0.7835	Adder	0.92
232905	BAYVIEW1	0.2155	50/50	0.2155
232907	VN8	3.4591	50/50	3.4591
232915	OH NUG4	0.6245	50/50	0.6245
232916	OH NUG5	0.6245	50/50	0.6245
232919	VN10	0.3860	50/50	0.3860
232921	TASLEY2G	0.4150	50/50	0.4150
232926	CRISFLD1	0.1816	50/50	0.1816
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1197	Adder	0.14
233923	AA1-102 C	1.0351	50/50	1.0351
293670	O-025 C	0.1227	50/50	0.1227
917081	CHERRYDALE C	0.1310	50/50	0.1310
917082	CHERRYDALE E	1.3551	50/50	1.3551
918835	AA1-102 E	10.7043	50/50	10.7043
924681	AB2-120 C	3.5123	Adder	4.13
924682	AB2-120 E	5.7306	Adder	6.74
924781	AB2-130 C O1	3.7290	50/50	3.7290
924782	AB2-130 E O1	6.0842	50/50	6.0842
924831	AB2-136 C	7.8140	50/50	7.8140
924832	AB2-136 E	8.2866	50/50	8.2866
925151	AB2-172 C	7.3659	50/50	7.3659
925152	AB2-172 E	12.0181	50/50	12.0181
925261	AB2-180 C	2.0782	50/50	2.0782
925262	AB2-180 E	0.8906	50/50	0.8906

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927031	AC1-190 C	13.1173	50/50	13.1173
927032	AC1-190 E	5.6217	50/50	5.6217
927191	AC1-213 C	0.4149	50/50	0.4149
927192	AC1-213 E	0.2723	50/50	0.2723
930201	AB1-056 C	3.9851	Adder	4.69
930202	AB1-056 E	11.3488	Adder	13.35
932161	AC2-023 C	4.2638	50/50	4.2638
932162	AC2-023 E	3.1054	50/50	3.1054
938651	AE1-087 C	6.2029	50/50	6.2029
938652	AE1-087 E	1.5507	50/50	1.5507
938895	AE1-117 C	3.2004	Adder	3.77
938896	AE1-117 E	8.5343	Adder	10.04
939151	AE1-145	1.8528	Adder	2.18
942441	AE2-257 C	2.1784	Adder	2.56
942442	AE2-257 E	5.7430	Adder	6.76
943361	AF1-007 C	0.1176	Adder	0.14
943362	AF1-007 E	0.3342	Adder	0.39
945661	AF1-231 C	0.7059	Adder	0.83
945662	AF1-231 E	1.0588	Adder	1.25
945791	AF1-244	0.9208	50/50	0.9208
945931	AF1-258	0.4750	50/50	0.4750
957611	AF2-055 C	3.8248	50/50	3.8248
957612	AF2-055 E	1.6392	50/50	1.6392
957661	AF2-060	0.8338	Adder	0.98
957671	AF2-061 O1	3.7057	Adder	4.36
959021	AF2-193 C	7.3637	Adder	8.66
959022	AF2-193 E	19.8635	Adder	23.37
959031	AF2-194 C	7.3637	Adder	8.66
959032	AF2-194 E	19.8635	Adder	23.37
959051	AF2-196 C	0.5941	Adder	0.7
959052	AF2-196 E	1.3862	Adder	1.63
959161	AF2-207 C O1	2.4583	50/50	2.4583
959162	AF2-207 E O1	3.6875	50/50	3.6875
959571	AF2-248 C	0.4243	50/50	0.4243
959572	AF2-248 E	0.4742	50/50	0.4742
959581	AF2-249 C	0.0749	50/50	0.0749
959582	AF2-249 E	0.2995	50/50	0.2995
959591	AF2-250 C	0.1373	50/50	0.1373
959592	AF2-250 E	0.1061	50/50	0.1061
960341	AF2-325 C	1.4325	50/50	1.4325
960342	AF2-325 E	1.9781	50/50	1.9781
960671	AF2-358 C O1	14.5572	50/50	14.5572
960672	AF2-358 E O1	9.7048	50/50	9.7048
960871	AF2-378 C	0.3630	50/50	0.3630
960872	AF2-378 E	0.5036	50/50	0.5036
960881	AF2-379 C	0.1997	50/50	0.1997
960882	AF2-379 E	0.2752	50/50	0.2752
960941	AF2-385 C	5.8287	50/50	5.8287
960942	AF2-385 E	3.3168	50/50	3.3168
961181	AF2-409 O1	14.3300	50/50	14.3300
962161	AG1-061 C O2	8.3096	50/50	8.3096
962162	AG1-061 E O2	5.5398	50/50	5.5398

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962262	AG1-072 BAT	1.4620	Merchant Transmission	1.4620
962381	AG1-087 C O2	2.8493	Adder	6.32
962382	AG1-087 E O2	7.6860	Adder	17.06
963001	AG1-149	0.3453	50/50	0.3453
963011	AG1-150	1.9640	Adder	4.36
964551	AG1-318 C	0.0107	Adder	0.02
964552	AG1-318 E	0.0250	Adder	0.06
964962	AG1-360 E	0.9975	50/50	0.9975
965321	AG1-397 C	0.4922	50/50	0.4922
965322	AG1-397 E	0.6790	50/50	0.6790
965611	AG1-429 C O2	3.8532	50/50	3.8532
965612	AG1-429 E O2	2.5681	50/50	2.5681
965821	AG1-450	6.3492	50/50	6.3492
965921	AG1-461 C O2	0.9334	Adder	2.07
965922	AG1-461 E O2	0.5026	Adder	1.12
966601	AG1-529 C	1.1737	Adder	2.61
966602	AG1-529 E	0.6265	Adder	1.39
CALDERWOOD	CALDERWOOD	0.0343	Confirmed LTF	0.0343
NY	NY	0.0249	Confirmed LTF	0.0249
PRAIRIE	PRAIRIE	0.1782	Confirmed LTF	0.1782
O-066	O-066	0.2221	Confirmed LTF	0.2221
CHEOAH	CHEOAH	0.0345	Confirmed LTF	0.0345
COTTONWOOD	COTTONWOOD	0.1449	Confirmed LTF	0.1449
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0404	Confirmed LTF	0.0404
GIBSON	GIBSON	0.0377	Confirmed LTF	0.0377
BLUEG	BLUEG	0.1198	Confirmed LTF	0.1198
TRIMBLE	TRIMBLE	0.0384	Confirmed LTF	0.0384
CATAWBA	CATAWBA	0.0242	Confirmed LTF	0.0242

13.5.38 Index 38

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
173791810	232838	MARDELA	DP&L	232270	HEBRON	DP&L	1	DPL_P4-2_DP6	breaker	64.0	131.79	135.58	DC	5.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232417	X3-008 C	0.1650	50/50	0.1650
232418	X3-008 E	1.7067	50/50	1.7067
232426	Y1-080 FULL	0.0337	50/50	0.0337
232427	Y1-080 E	0.3509	50/50	0.3509
232919	VN10	0.3200	50/50	0.3200
924831	AB2-136 C	3.8098	50/50	3.8098
924832	AB2-136 E	4.0402	50/50	4.0402
925151	AB2-172 C	2.6152	50/50	2.6152
925152	AB2-172 E	4.2668	50/50	4.2668
927031	AC1-190 C	4.9168	50/50	4.9168
927032	AC1-190 E	2.1072	50/50	2.1072
938651	AE1-087 C	2.2022	50/50	2.2022
938652	AE1-087 E	0.5506	50/50	0.5506
939152	AE1-145 BAT	1.2036	Merchant Transmission	1.2036
945663	AF1-231 BAT	1.1011	Merchant Transmission	1.1011
945792	AF1-244 BAT	0.4183	Merchant Transmission	0.4183
957613	AF2-055 BAT	1.7646	Merchant Transmission	1.7646
957662	AF2-060 BAT	0.5416	Merchant Transmission	0.5416
957672	AF2-061 BAT	2.4072	Merchant Transmission	2.4072
959163	AF2-207 BAT	4.3032	Merchant Transmission	4.3032
959583	AF2-249 BAT	0.3797	50/50	0.3797
960341	AF2-325 C	0.6212	50/50	0.6212
960342	AF2-325 E	0.8578	50/50	0.8578
960671	AF2-358 C O1	10.1748	50/50	10.1748
960672	AF2-358 E O1	6.7832	50/50	6.7832
960871	AF2-378 C	0.1676	50/50	0.1676
960872	AF2-378 E	0.2325	50/50	0.2325
960881	AF2-379 C	-0.1357	Adder	-0.16
962381	AG1-087 C O2	0.6562	Adder	1.46
962382	AG1-087 E O2	1.7700	Adder	3.93
963002	AG1-149 BAT	0.0831	Merchant Transmission	0.0831
963012	AG1-150 BAT	1.2758	Merchant Transmission	1.2758
965821	AG1-450	4.1770	50/50	4.1770
WEC	WEC	0.0072	Confirmed LTF	0.0072
LGEE	LGEE	0.0145	Confirmed LTF	0.0145
CPL	CPL	0.0157	Confirmed LTF	0.0157
G-007A	G-007A	0.0240	Confirmed LTF	0.0240
VFT	VFT	0.0774	Confirmed LTF	0.0774
CBM-W2	CBM-W2	0.2061	Confirmed LTF	0.2061
TVA	TVA	0.0322	Confirmed LTF	0.0322
SIGE	SIGE	0.0012	Confirmed LTF	0.0012
CBM-S2	CBM-S2	0.2401	Confirmed LTF	0.2401

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	0.0087	Confirmed LTF	0.0087
CBM-N	CBM-N	0.0168	Confirmed LTF	0.0168
MEC	MEC	0.0365	Confirmed LTF	0.0365
LAGN	LAGN	0.0403	Confirmed LTF	0.0403
CBM-W1	CBM-W1	0.3225	Confirmed LTF	0.3225

13.5.39 Index 39

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
174170047	923960	AB2-037 TAP	DP&L	231003	KEEN_230	DP&L	2	DPL_P4-2_DP8	breaker	727.0	115.95	123.26	DC	119.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.6446	50/50	0.6446
232405	W1-003 E	3.7922	50/50	3.7922
232406	W1-004 C	0.6446	50/50	0.6446
232407	W1-004 E	3.7922	50/50	3.7922
232408	W1-005 C	0.6446	50/50	0.6446
232409	W1-005 E	3.7922	50/50	3.7922
232410	W1-006 C	0.6446	50/50	0.6446
232411	W1-006 E	3.7922	50/50	3.7922
232412	X1-032 E	1.2425	50/50	1.2425
232417	X3-008 C	0.4049	50/50	0.4049
232418	X3-008 E	4.1875	50/50	4.1875
232423	X3-066 E	0.7039	Adder	0.83
232424	Y1-079 C	0.1955	50/50	0.1955
232425	Y1-079 E	2.0223	50/50	2.0223
232426	Y1-080 FULL	0.0671	50/50	0.0671
232427	Y1-080 E	0.6980	50/50	0.6980
232428	Y3-058 C	0.2815	50/50	0.2815
232429	Y3-058 E	1.9095	50/50	1.9095
232433	Z2-076 E	0.4814	Adder	0.57
232435	Z2-077 E	0.4814	Adder	0.57
232851	DUP-SFR1	2.3176	Adder	2.73
232902	EASTMUNI	3.8654	50/50	3.8654
232907	VN8	8.3860	50/50	8.3860
232915	OH NUG4	1.7464	50/50	1.7464
232916	OH NUG5	1.7464	50/50	1.7464
232919	VN10	0.6007	50/50	0.6007
232922	MR3 (Deactivation : 01/06/2021)	13.6301	Adder	16.04
232926	CRISFLD1	0.4919	50/50	0.4919
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.4243	Adder	0.5
233916	AB1-141 E	1.4376	Adder	1.69
233919	AB1-142 E	1.4376	Adder	1.69
233923	AA1-102 C	2.8040	50/50	2.8040
233931	AB2-179 C	4.3272	Adder	5.09
293670	O-025 C	0.2914	50/50	0.2914
917082	CHERRYDALE E	3.2200	Adder	3.79
918835	AA1-102 E	28.9974	50/50	28.9974
919831	AA2-069 (Suspended)	60.2665	Adder	70.9
923921	AB2-032 C	3.1034	Adder	3.65
923922	AB2-032 E	1.4604	Adder	1.72
923951	AB2-036 C	11.7746	50/50	11.7746

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923952	AB2-036 E	19.2644	50/50	19.2644
923961	AB2-037 C	37.9972	50/50	37.9972
923962	AB2-037 E	62.0736	50/50	62.0736
924681	AB2-120 C	9.8534	Adder	11.59
924682	AB2-120 E	16.0767	Adder	18.91
924781	AB2-130 C O1	7.9757	Adder	9.38
924782	AB2-130 E O1	13.0129	Adder	15.31
924801	AB2-133 C O1	5.1135	Adder	6.02
924802	AB2-133 E O1	6.4855	Adder	7.63
924821	AB2-135 C	5.9789	Adder	7.03
924822	AB2-135 E	6.8187	Adder	8.02
924831	AB2-136 C	8.3033	50/50	8.3033
924832	AB2-136 E	8.8055	50/50	8.8055
924971	AB2-153 C	1.7343	Adder	2.04
924972	AB2-153 E	2.8296	Adder	3.33
925151	AB2-172 C	6.4163	50/50	6.4163
925152	AB2-172 E	10.4687	50/50	10.4687
925254	AB2-179 E	1.4120	Adder	1.66
925261	AB2-180 C	4.3826	50/50	4.3826
925262	AB2-180 E	1.8782	50/50	1.8782
925271	AB2-185 C	4.5664	50/50	4.5664
925272	AB2-185 E	1.9570	50/50	1.9570
926131	AC1-091 C	0.8017	Adder	0.94
926132	AC1-091 E	1.3147	Adder	1.55
926141	AC1-092 C	0.8017	Adder	0.94
926142	AC1-092 E	1.3147	Adder	1.55
926151	AC1-093 C	0.7589	Adder	0.89
926152	AC1-093 E	1.2506	Adder	1.47
926161	AC1-094 C	0.6413	Adder	0.75
926162	AC1-094 E	1.0582	Adder	1.24
927031	AC1-190 C	11.8017	50/50	11.8017
927032	AC1-190 E	5.0579	50/50	5.0579
927191	AC1-213 C	0.9852	50/50	0.9852
927192	AC1-213 E	0.6465	50/50	0.6465
930201	AB1-056 C	14.9955	Adder	17.64
930202	AB1-056 E	42.7045	Adder	50.24
931261	AB1-176 C	0.3640	Adder	0.43
931262	AB1-176 E	0.6003	Adder	0.71
932161	AC2-023 C	8.3870	50/50	8.3870
932162	AC2-023 E	6.1083	50/50	6.1083
933631	AC2-185 C	1.6247	Adder	1.91
933632	AC2-185 E	2.6508	Adder	3.12
933641	AC2-186 C	3.7806	Adder	4.45
933642	AC2-186 E	6.1683	Adder	7.26
936611	AD2-076 C O1	4.4808	Adder	5.27
936612	AD2-076 E O1	7.3107	Adder	8.6
938651	AE1-087 C	5.4032	50/50	5.4032
938652	AE1-087 E	1.3508	50/50	1.3508
938895	AE1-117 C	11.3167	Adder	13.31
938896	AE1-117 E	30.1779	Adder	35.5
939151	AE1-145	5.1860	Adder	6.1
941021	AE2-093 C	6.2235	50/50	6.2235

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941022	AE2-093 E	10.1542	50/50	10.1542
941181	AE2-112 C	1.5546	Adder	1.83
941182	AE2-112 E	2.5364	Adder	2.98
942441	AE2-257 C	7.7617	Adder	9.13
942442	AE2-257 E	20.4627	Adder	24.07
943361	AF1-007 C	0.4424	Adder	0.52
943362	AF1-007 E	1.2574	Adder	1.48
943441	AF1-015 C	2.3450	50/50	2.3450
943442	AF1-015 E	3.2383	50/50	3.2383
943651	AF1-036 C	2.0214	Adder	2.38
943652	AF1-036 E	2.7915	Adder	3.28
945661	AF1-231 C	1.9741	Adder	2.32
945662	AF1-231 E	2.9612	Adder	3.48
945791	AF1-244	2.4944	50/50	2.4944
945931	AF1-258	1.0017	50/50	1.0017
945941	AF1-259	0.1929	Adder	0.23
957611	AF2-055 C	9.0886	Adder	10.69
957612	AF2-055 E	3.8951	Adder	4.58
957661	AF2-060	2.3337	Adder	2.75
957671	AF2-061 O1	10.3720	Adder	12.2
959021	AF2-193 C	27.7090	Adder	32.6
959022	AF2-193 E	74.7445	Adder	87.93
959031	AF2-194 C	27.7090	Adder	32.6
959032	AF2-194 E	74.7445	Adder	87.93
959051	AF2-196 C	2.1168	Adder	2.49
959052	AF2-196 E	4.9393	Adder	5.81
959161	AF2-207 C O1	5.2237	Adder	6.15
959162	AF2-207 E O1	7.8356	Adder	9.22
959571	AF2-248 C	1.0403	50/50	1.0403
959572	AF2-248 E	1.1626	50/50	1.1626
959581	AF2-249 C	0.1836	50/50	0.1836
959582	AF2-249 E	0.7343	50/50	0.7343
959591	AF2-250 C	0.3366	50/50	0.3366
959592	AF2-250 E	0.2601	50/50	0.2601
960221	AF2-313 C	3.0617	Adder	3.6
960222	AF2-313 E	1.7358	Adder	2.04
960341	AF2-325 C	1.4106	50/50	1.4106
960342	AF2-325 E	1.9479	50/50	1.9479
960671	AF2-358 C O1	19.9158	50/50	19.9158
960672	AF2-358 E O1	13.2772	50/50	13.2772
960871	AF2-378 C	0.3722	50/50	0.3722
960872	AF2-378 E	0.5163	50/50	0.5163
960881	AF2-379 C	0.5126	50/50	0.5126
960882	AF2-379 E	0.7064	50/50	0.7064
960941	AF2-385 C	12.3856	Adder	14.57
960942	AF2-385 E	7.0479	Adder	8.29
960961	AF2-387 C O1	24.0326	50/50	24.0326
960962	AF2-387 E O1	12.0524	50/50	12.0524
961181	AF2-409 O1	34.7410	50/50	34.7410
962161	AG1-061 C O2	21.4414	50/50	21.4414
962162	AG1-061 E O2	14.2943	50/50	14.2943
962261	AG1-072	18.0425	50/50	18.0425

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962302	AG1-079 E	0.1495	Adder	0.33
962381	AG1-087 C O2	14.5260	Adder	32.24
962382	AG1-087 E O2	39.1837	Adder	86.98
963001	AG1-149	0.9354	50/50	0.9354
963011	AG1-150	5.4972	Adder	12.2
964551	AG1-318 C	0.0376	Adder	0.08
964552	AG1-318 E	0.0877	Adder	0.19
964962	AG1-360 E	2.7180	50/50	2.7180
965321	AG1-397 C	0.5674	Adder	1.26
965322	AG1-397 E	0.7828	Adder	1.74
965611	AG1-429 C O2	4.8528	Adder	10.77
965612	AG1-429 E O2	3.2343	Adder	7.18
965821	AG1-450	8.3095	50/50	8.3095
965921	AG1-461 C O2	2.5181	Adder	5.59
965922	AG1-461 E O2	1.3559	Adder	3.01
965951	AG1-464 C O2	2.1092	Adder	4.68
965952	AG1-464 E O2	3.1637	Adder	7.02
966281	AG1-497 C O2	5.9491	Adder	13.21
966282	AG1-497 E O2	2.5496	Adder	5.66
966601	AG1-529 C	5.4292	Adder	12.05
966602	AG1-529 E	2.8978	Adder	6.43
CALDERWOOD	CALDERWOOD	0.1411	Confirmed LTF	0.1411
NY	NY	0.0868	Confirmed LTF	0.0868
PRAIRIE	PRAIRIE	0.7310	Confirmed LTF	0.7310
O-066	O-066	0.6663	Confirmed LTF	0.6663
CHEOAH	CHEOAH	0.1421	Confirmed LTF	0.1421
COTTONWOOD	COTTONWOOD	0.5964	Confirmed LTF	0.5964
G-007	G-007	0.0662	Confirmed LTF	0.0662
HAMLET	HAMLET	0.1657	Confirmed LTF	0.1657
GIBSON	GIBSON	0.1545	Confirmed LTF	0.1545
BLUEG	BLUEG	0.4913	Confirmed LTF	0.4913
TRIMBLE	TRIMBLE	0.1575	Confirmed LTF	0.1575
CATAWBA	CATAWBA	0.1001	Confirmed LTF	0.1001

13.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
DPL_P4-2_DP6	CONTINGENCY 'DPL_P4-2_DP6' / 151 OPEN BRANCH FROM BUS 232004 TO BUS 962380 CKT 1 / 232004 MILF_230 230 962380 AG1-087 TAP 230 1 OPEN BRANCH FROM BUS 232003 TO BUS 232004 CKT 1 / 232003 CARTANZA 230 232004 MILF_230 230 1 END
DPL_P4-2_DP4	CONTINGENCY 'DPL_P4-2_DP4' / 641 OPEN BRANCH FROM BUS 232002 TO BUS 232004 CKT 1 / 232002 CEDAR CK 230 232004 MILF_230 230 1 OPEN BRANCH FROM BUS 232113 TO BUS 232004 CKT 1 / 232113 MILF_138 138 232004 MILF_230 230 1 END
TS_P1-2_#T6	CONTINGENCY 'TS_P1-2_#T6' / 1771 OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 END
DPL_P4-2_DP8	CONTINGENCY 'DPL_P4-2_DP8' / 1736 OPEN BRANCH FROM BUS 231003 TO BUS 232000 CKT 1 / 231003 KEEN_230 230 232000 STEELE 230 1 OPEN BRANCH FROM BUS 232103 TO BUS 232000 CKT 1 / 232103 STEEL138 138 232000 STEELE 230 1 END
Base Case	
PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L	CONTINGENCY 'PECO_P1-2_220-97/* \$ DELCO \$ PECO_P1-2_220-97 \$ L' / 985 OPEN BRANCH FROM BUS 214216 TO BUS 214234 CKT 1 / 214216 POST97 230 214234 LINWOOD97 230 1 OPEN BRANCH FROM BUS 214216 TO BUS 214288 CKT Z / 214216 POST97 230 214288 POST2T 230 Z OPEN BRANCH FROM BUS 214216 TO BUS 214290 CKT Z / 214216 POST97 230 214290 POST1T 230 Z OPEN BRANCH FROM BUS 214233 TO BUS 214234 CKT Z / 214233 LINWOOD86 230 214234 LINWOOD97 230 Z OPEN BRANCH FROM BUS 214234 TO BUS 214235 CKT Z / 214234 LINWOOD97 230 214235 LINWOOD84 230 Z END

Contingency Name	Contingency Definition
DPL_P7_1_DBL_3NC	CONTINGENCY 'DPL_P7_1_DBL_3NC' / * HARMNY-KEENY 230;KEENY-CHRYSLR 230 OPEN LINE FROM BUS 231002 TO BUS 231003 CKT 1 OPEN LINE FROM BUS 231123 TO BUS 231115 CKT 1 END
PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	CONTINGENCY 'PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L' / 1413 OPEN BRANCH FROM BUS 213489 TO BUS 213627 CKT 1 / 213489 CHICHST1 230 213627 FOULK8 230 1 OPEN BRANCH FROM BUS 213624 TO BUS 213627 CKT Z / 213624 FOULK 230 213627 FOULK8 230 Z OPEN BRANCH FROM BUS 213626 TO BUS 213627 CKT 2 / 213626 FOULK 2 13.8 213627 FOULK8 230 2 END
JC-P1-2-JCC-500-003	CONTINGENCY 'JC-P1-2-JCC-500-003' / 1231 OPEN BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 / 200012 NEWFRDM 500 200028 WINDSOR 500 1 END
DPL_P1_1_IR4 GEN	CONTINGENCY 'DPL_P1_1_IR4 GEN' / 741 OPEN BRANCH FROM BUS 232904 TO BUS 232006 CKT 1 / 232904 IR4 26.0 232006 INDRIV 4 230 1 END
PJM500_PS_P1-2_HOPE-SILVER	CONTINGENCY 'PJM500_PS_P1-2_HOPE-SILVER' / 1565 OPEN BRANCH FROM BUS 232012 TO BUS 232014 CKT 1 / 232012 HOPE CREEK 230 232014 LSPWR CABLE 230 1 OPEN BRANCH FROM BUS 232012 TO BUS 232014 CKT 2 / 232012 HOPE CREEK 230 232014 LSPWR CABLE 230 2 OPEN BRANCH FROM BUS 200029 TO BUS 232012 CKT 1 / 200029 HOPE CRK 500 232012 HOPE CREEK 230 1 OPEN BRANCH FROM BUS 232013 TO BUS 232014 CKT 1 / 232013 SILVER RUN 230 232014 LSPWR CABLE 230 1 END
TS_P4_#T7_FUR RUN 500_CB 3	CONTINGENCY 'TS_P4_#T7_FUR RUN 500_CB 3' / 1843 OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 OPEN BRANCH FROM BUS 200016 TO BUS 270072 CKT 1 / 200016 3 MILE I 500 270072 FUR RUN_500 500 1 END
DPL_P4-2_DP12	CONTINGENCY 'DPL_P4-2_DP12' / 545 OPEN BRANCH FROM BUS 232103 TO BUS 232000 CKT 2 / 232103 STEEL138 138 232000 STEEEL 230 2 OPEN BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 / 232000 STEEEL 230 232005 VIENNA 230 1 END

Contingency Name	Contingency Definition
DPL_P4-2_DP11	CONTINGENCY 'DPL_P4-2_DP11' / 913 OPEN BRANCH FROM BUS 232000 TO BUS 962380 CKT 1 / 232000 STEELE 230 962380 AG1-087 TAP 230 1 OPEN BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 / 232000 STEELE 230 232005 VIENNA 230 1 END
PJM_500_BG_P4_5_CNSTN_B	CONTINGENCY 'PJM_500_BG_P4_5_CNSTN_B' / 1860 OPEN BRANCH FROM BUS 200004 TO BUS 220963 CKT 2 / 200004 CNASTONE 500 220963 CONASTON 230 2 OPEN BRANCH FROM BUS 200004 TO BUS 200064 CKT 1 / 200004 CNASTONE 500 200064 PCHBTM1S 500 1 END
DPL_P7_1_DBL_4NC	CONTINGENCY 'DPL_P7_1_DBL_4NC' /* RED LION-SILVER RUN 230;RED LION-SILVER RUN 230 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 1 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 2 END
DPL_P1_2_AB2-037 KEENEY	CONTINGENCY 'DPL_P1_2_AB2-037 KEENEY' / 1341 OPEN BRANCH FROM BUS 231003 TO BUS 923960 CKT 2 / 231003 KEEN_230 230 923960 AB2-037 TAP 230 2 END
PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K	CONTINGENCY 'PECO_P2-1_CHIC435/* \$ DELCO \$ PECO_P2-1_CHIC435 \$ K' / 989 OPEN BRANCH FROM BUS 213489 TO BUS 214221 CKT 1 / 213489 CHICHST1 230 214221 CHIREACT_43 230 1 END
DPL_P2-2_DP1	CONTINGENCY 'DPL_P2-2_DP1' /*138TH STREET BUS DISCONNECT BRANCH FROM BUS 232124 TO BUS 232126 CKT 1 /*138TH STREET OCEAN BAY 138 138 DISCONNECT BRANCH FROM BUS 232124 TO BUS 232626 CKT 1 /*138TH STREET T2 138 12 DISCONNECT BRANCH FROM BUS 232124 TO BUS 232170 CKT 1 /*138TH STREET SVC END
PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	CONTINGENCY 'PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B END

Contingency Name	Contingency Definition
DPL_P7_1_DBL_1NCB_FSA	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA' / * #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 OPEN LINE FROM BUS 232000 TO BUS 923960 CKT 2 DISCONNECT BUS 923961 DISCONNECT BUS 923962 END
PECO_P4_POST475/* \$ DELCO \$ PECO_P4_POST475 \$ STBK	CONTINGENCY 'PECO_P4_POST475/* \$ DELCO \$ PECO_P4_POST475 \$ STBK' / 1079 OPEN BRANCH FROM BUS 214216 TO BUS 214290 CKT Z / 214216 POST97 230 214290 POST1T 230 Z OPEN BRANCH FROM BUS 214289 TO BUS 214290 CKT Z / 214289 POST1 230 214290 POST1T 230 Z OPEN BRANCH FROM BUS 214217 TO BUS 214290 CKT 1 / 214217 POST23 13.8 214290 POST1T 230 1 OPEN BRANCH FROM BUS 214216 TO BUS 214234 CKT 1 / 214216 POST97 230 214234 LINWOOD97 230 1 OPEN BRANCH FROM BUS 214216 TO BUS 214288 CKT Z / 214216 POST97 230 214288 POST2T 230 Z OPEN BRANCH FROM BUS 214233 TO BUS 214234 CKT Z / 214233 LINWOOD86 230 214234 LINWOOD97 230 Z OPEN BRANCH FROM BUS 214234 TO BUS 214235 CKT Z / 214234 LINWOOD97 230 214235 LINWOOD84 230 Z END
PJM500_PS_P1-2_5015	CONTINGENCY 'PJM500_PS_P1-2_5015' / 1465 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 END
CKT 23030B	CONTINGENCY 'CKT 23030B' / 1647 OPEN BRANCH FROM BUS 232002 TO BUS 232013 CKT 1 / 232002 CEDAR CK 230 232013 SILVER RUN 230 1 END
CKT 23032B	CONTINGENCY 'CKT 23032B' / 605 OPEN BRANCH FROM BUS 232003 TO BUS 232013 CKT 1 / 232003 CARTANZA 230 232013 SILVER RUN 230 1 END

Contingency Name	Contingency Definition
PECO_P2-2_CON230BD/* \$ CHESCO \$ PECO_P2-2_CON230BD \$ B	CONTINGENCY 'PECO_P2-2_CON230BD/* \$ CHESCO \$ PECO_P2-2_CON230BD \$ B' DISCONNECT BUS 213517 /* CONOW7 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213514 /* CONOW1-2 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213515 /* CONOW3-4 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213516 /* CONOW5-6 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213964 /* SUSQ 12 35.00 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213519 /* CONOWG01 230.00 \$ CHESCO \$ PECO_P2-2_CON230BD \$ B END
PECO_P2-2_NEWL230B/* \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B	CONTINGENCY 'PECO_P2-2_NEWL230B/* \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B' DISCONNECT BUS 213834 /* NEWLNVL 230.00 \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B DISCONNECT BUS 213835 /* NEWLNVL 138.00 \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B DISCONNECT BUS 214179 /* NEWLIN4A TER 13.80 \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B DISCONNECT BUS 213753 /* LKNSCTV2 138.00 \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B END
PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L' / 1740 OPEN BRANCH FROM BUS 200004 TO BUS 200064 CKT 1 / 200004 CNASTONE 500 200064 PCHBTM1S 500 1 END
PJM500_PS_P2-3_NFRD5_910	CONTINGENCY 'PJM500_PS_P2-3_NFRD5_910' / 1307 OPEN BRANCH FROM BUS 200012 TO BUS 219100 CKT 4 / 200012 NEWFRDM 500 219100 NEWFRDM 230 4 OPEN BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 / 200012 NEWFRDM 500 200028 WINDSOR 500 1 END

Contingency Name	Contingency Definition
PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	CONTINGENCY 'PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK' / 269 OPEN BRANCH FROM BUS 213489 TO BUS 213490 CKT Z / 213489 CHICHST1 230 213490 CHICHST2 230 Z OPEN BRANCH FROM BUS 213489 TO BUS 213588 CKT 1 / 213489 CHICHST1 230 213588 EDDYSTN4 230 1 OPEN BRANCH FROM BUS 213489 TO BUS 213627 CKT 1 / 213489 CHICHST1 230 213627 FOULK8 230 1 OPEN BRANCH FROM BUS 213489 TO BUS 214221 CKT 1 / 213489 CHICHST1 230 214221 CHIREACT_43 230 1 OPEN BRANCH FROM BUS 213488 TO BUS 213489 CKT 3 / 213488 CHICH3-5 13.8 213489 CHICHST1 230 3 OPEN THREEWINDING AT BUS 213489 TO BUS 214203 TO BUS 214154 CKT 9A/ OPEN THREEWINDING AT BUS 213489 TO BUS 214203 TO BUS 214204 CKT 9B/ OPEN BRANCH FROM BUS 213624 TO BUS 213627 CKT Z / 213624 FOULK 230 213627 FOULK8 230 Z OPEN BRANCH FROM BUS 213626 TO BUS 213627 CKT 2 / 213626 FOULK 2 13.8 213627 FOULK8 230 2 END
PJM500_PS_P1-2_5023	CONTINGENCY 'PJM500_PS_P1-2_5023' / 1037 OPEN BRANCH FROM BUS 200012 TO BUS 200029 CKT 1 / 200012 NEWFRDM 500 200029 HOPE CRK 500 1 END
PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L' / 1691 OPEN BRANCH FROM BUS 200051 TO BUS 200065 CKT 1 / 200051 ROCKSPGS 500 200065 PCHBTM2S 500 1 END
DPL_P4-2_DP18_FSA	CONTINGENCY 'DPL_P4-2_DP18_FSA' / 1426 OPEN BRANCH FROM BUS 231002 TO BUS 231003 CKT 1 / 231002 HARMONY 230 231003 KEEN_230 230 1 OPEN BRANCH FROM BUS 231003 TO BUS 923960 CKT 2 / 231003 KEEN_230 230 923960 AB2-037 TAP 230 2 END
DPL_P1_2_CKT 23015	CONTINGENCY 'DPL_P1_2_CKT 23015' / 723 OPEN BRANCH FROM BUS 231000 TO BUS 231001 CKT 1 / 231000 CLAY_230 230 231001 EDGEMR 5 230 1 END
PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	CONTINGENCY 'PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK' / 1828 OPEN BRANCH FROM BUS 200051 TO BUS 200065 CKT 1 / 200051 ROCKSPGS 500 200065 PCHBTM2S 500 1 REMOVE MACHINE 1 FROM BUS 200034 /* 200034 PCHBTM 2 22.0 DEFAULT DISPATCH END

Contingency Name	Contingency Definition
PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC' / 700 OPEN BRANCH FROM BUS 214236 TO BUS 231001 CKT 1 / 214236 LINWOOD85 230 231001 EDGEMR 5 230 1 END
DPL_P7_1_DBL_6NC	CONTINGENCY 'DPL_P7_1_DBL_6NC' /* EDGE MOOR-LINWOOD(PECO) 230;CLAYMONT-LINWOOD(PECO) 230 OPEN LINE FROM BUS 231001 TO BUS 214236 CKT 1 OPEN LINE FROM BUS 231000 TO BUS 214235 CKT 1 END
PJM500_DPL_P4_2_REDLION-HOPE AT51	CONTINGENCY 'PJM500_DPL_P4_2_REDLION-HOPE AT51' / 2848 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 OPEN BRANCH FROM BUS 231004 TO BUS 200027 CKT 2 / 231004 RL_230 230 200027 REDLION 500 2 END
PJM500_DPL_P4_2_REDLION-HOPE AT50	CONTINGENCY 'PJM500_DPL_P4_2_REDLION-HOPE AT50' / 1582 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 OPEN BRANCH FROM BUS 231004 TO BUS 200027 CKT 1 / 231004 RL_230 230 200027 REDLION 500 1 END
DPL_P1_2_CKT 23001	CONTINGENCY 'DPL_P1_2_CKT 23001' / 1597 OPEN BRANCH FROM BUS 231003 TO BUS 232000 CKT 1 / 231003 KEEN_230 230 232000 STEELE 230 1 END

14 Affected Systems

None