



**Generation Interconnection
Feasibility Study Report
for
Queue Project AF2-193
INDIAN RIVER 230 KV I
119 MW Capacity / 440 MW Energy**

July 2020

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Table of Contents

1	Introduction.....	5
2	Preface.....	5
3	General	6
4	Primary Point of Interconnection	6
5	Cost Summary	6
5.1	DPL Costs.....	7
6	Transmission Owner Scope of Work	7
7	Schedule.....	7
8	Transmission Owner Analysis.....	7
9	Interconnection Customer Requirements.....	8
9.1	Required Relaying and Communications.....	8
9.2	Interconnection Customer Scope of Direct Connection Work	8
9.3	DPL Interconnection Customer Scope of Direct Connection Work Requirements.....	8
9.4	Special Operating Requirements.....	8
10	Revenue Metering and SCADA Requirements	9
10.1	PJM Requirements	9
10.2	Interconnected Transmission Owner Requirements.....	9
11	Summer Peak - Load Flow Analysis - Primary POI	10
11.1	Generation Deliverability	10
11.2	Multiple Facility Contingency	10
11.3	Contribution to Previously Identified Overloads.....	10
11.4	Potential Congestion due to Local Energy Deliverability.....	11
11.5	System Reinforcements - Summer Peak Load Flow - Primary POI.....	14
11.6	Flow Gate Details - Primary POI	18
11.6.1	Index 1	19
11.6.2	Index 2	23
11.6.3	Index 3	27
11.6.4	Index 4	30
11.6.5	Index 5	36
11.6.6	Index 6	39
11.6.7	Index 7	42

11.6.8	Index 8	48
11.6.9	Index 9	52
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
11.6.16	Index 16	79
11.6.17	Index 17	80
11.6.18	Index 18	83
11.6.19	Index 19	86
11.7	Queue Dependencies	89
11.8	Contingency Descriptions - Primary POI	93
12	Short Circuit Analysis - Primary POI	96
13	Secondary Point of Interconnection	97
14	Summer Peak - Load Flow Analysis - Secondary POI	97
14.1	Generation Deliverability	97
14.2	Multiple Facility Contingency	97
14.3	Contribution to Previously Identified Overloads	97
14.4	Potential Congestion due to Local Energy Deliverability	98
14.5	Flow Gate Details - Secondary POI	101
14.5.1	Index 1	102
14.5.2	Index 2	108
14.5.3	Index 3	111
14.5.4	Index 4	114
14.5.5	Index 5	120
14.5.6	Index 6	124
14.5.7	Index 7	128
14.5.8	Index 8	131
14.5.9	Index 9	135
14.5.10	Index 10	139
14.5.11	Index 11	143

14.5.12	Index 12	147
14.5.13	Index 13	151
14.6	Contingency Descriptions - Secondary POI	154
15	Affected Systems	157

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 a 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	AF2-193
Project Name	INDIAN RIVER 230 KV I
State	Delaware
County	Sussex
Transmission Owner	DPL
MFO	440
MWE	440
MWC	119
Fuel	Offshore Wind
Basecase Study Year	2023

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

4 Primary Point of Interconnection

AF2-193 will have a primary point of interconnection with the DPL transmission system at the Indian River 230 kV substation by adding a new terminal position on the ring bus.

5 Cost Summary

The AF2-193 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$ 2,475,000
Total System Network Upgrade Costs	\$532,233,000
Total Costs	\$534,708,000

This cost excludes a Federal Income Tax Gross Up charges. This tax may or may not be charged based on whether this project meets the eligibility requirements of IRS Notice 88-129. If at a future date it is determined that the Federal Income Tax Gross charge is required, the Transmission Owner shall be reimbursed by the Interconnection Customer for such taxes.

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

5.1 DPL Costs

Cost estimates will further be refined as a part of the Impact Study and Facilities Study for this project. The Interconnection Customer will be responsible for all costs incurred by DPL in connection with the AF2-193 project. DPL reserves the right to reassess issues presented in this document and, upon appropriate justification, submit additional costs related to the AF2-193 project.

6 Transmission Owner Scope of Work

Construct an additional line terminal on an available bus position in the Indian River 230kV Substation.

Major Equipment:

- 1 3000A 230 kV circuit breaker
- 2 3000A 230 kV breaker disconnect switches
- 1 3000A 230 kV line switch
- Two (2) new relay panels (front line and backup protection)
- Associated Bus work and relaying

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

Description	Total Cost
New terminal position at Indian River 230 kV	\$2,475,000
Total Physical Interconnection Costs	\$2,475,000

Estimate Assumptions:

- Any additional land required will be provided by IC and is not included in the cost estimate
- Site prep to be performed by IC if additional land required
- Existing control house can adequately house necessary relaying

7 Schedule

DPL would take approximately 24-30 months to complete the TO scope of work.

8 Transmission Owner Analysis

None

9 Interconnection Customer Requirements

9.1 Required Relaying and Communications

New protection relays are required for the new terminals.

Front line and back-up line protection will be required. A relay panel at the generator terminal will be required for front line and back-up protection.

New protection relays are required for the new line terminals. Frontline and Backup line protection will be required. A relay panel will be required for each transmission line.

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.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Interconnected Transmission Owner Requirements

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

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

A three phase 230 kV revenue metering point will need to be established within the Interconnection Customer Facilities at the Point of Interconnection. The Interconnection Customer will purchase and install all metering instrument transformers as well as construct a metering structure per the DPL's specifications. The secondary wiring connections at the instrument transformers will be completed by the Interconnection Customer and inspected by DPL, while the connections at the metering enclosure will be completed by the DPL. The metering control cable and meter cabinets will be supplied by the DPL and installed by the Interconnection Customer. The Interconnection Customer will install conduit for the control cable between the instrument transformers and the metering enclosure. The location of the metering enclosure will be determined during construction. The Interconnection Customer will provide 120V power to the meter cabinet. The DPL will provide, program, install, and own the primary & backup solid state multi-function meters for the new metering position.

Each meter will be equipped with load profile, telemetry, and DNP outputs. The Interconnection Customer will be provided with one-meter DNP output for each meter. DPL will supply a wireless modem for MV90 interrogation. In the event that a wireless modem is unable to reliably communicate, the IC will be required to make provisions for a POTS (Plain Old Telephone Service) line or equivalent technology approved by DPL within approximately three feet of the DPL metering position to facilitate remote interrogation and data collection. It is the Interconnection Customer's responsibility to send the data that PJM and DPL require directly to PJM. The Interconnection Customer will grant permission for PJM to send DPL the following telemetry that the Interconnection Customer sends to PJM: real time MW, MVAR, volts, amperes, generator status, and interval MWH and MVARH.

DPL's revenue meters will be the official meters and must be the source for reporting generation output to PJM. The Interconnection Customer is responsible for installing telemetry equipment necessary to obtain the revenue meter data and submitting the data to PJM.

11 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AF2-193 was evaluated as a 440.0 MW (Capacity 119.0 MW) injection at the Indian River 230 kV substation in the DPL area. Project AF2-193 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-193 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

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

None

11.2 Multiple Facility Contingency

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

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 T LOADI NG %	POST PROJE T LOADI NG %	AC DC	MW IMPA CT
100073844	213490	CHICHST2	230.0	PECO	213496	CHIREACT_53	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	bus	841.0	98.44	100.24	DC	32.54
100074140	213490	CHICHST2	230.0	PECO	213496	CHIREACT_53	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	841.0	98.44	100.24	DC	32.54
100073843	213496	CHIREACT_53	230.0	PECO	213972	TRAINER	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	bus	841.0	98.44	100.24	DC	32.54
100074141	213496	CHIREACT_53	230.0	PECO	213972	TRAINER	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	841.0	98.44	100.24	DC	32.54
100073913	232001	COOLSPRS	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	DPL_P4-2_DP15	breaker	678.0	63.12	106.88	DC	297.92

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADI NG %	POST PROJE T LOADI NG %	AC DC	MW IMPA CT
99336393	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PJM	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	135.24	138.81	DC	224.85
99337038	200064	PCHBTM1S	500.0	PJM	200004	CNASTONE	500.0	PJM	1	PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	single	3525.0	104.77	106.21	DC	49.83
99337054	200066	PCHBTM1N	500.0	PJM	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	single	3525.0	101.5	102.83	DC	45.66
100074083	219100	NEWFRDM	230.0	PSE&G	219704	HILLTOP_3	230.0	PSE&G	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	886.0	114.24	116.04	DC	34.67
100073960	231000	CLAY_230	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	140.87	144.52	DC	64.09

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
100074307	231000	CLAY_230	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	108.9	109.89	DC	17.4
100073973	231001	EDGEMR5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	136.49	139.79	DC	58.07
100074324	231001	EDGEMR5	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-84	single	804.0	107.78	108.74	DC	16.91
100074325	231001	EDGEMR5	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	DPL_P1_2_CKT 23015	single	804.0	107.75	108.65	DC	15.74
100074333	231001	EDGEMR5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	108.31	109.21	DC	15.76
101764710	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	378.0	103.88	108.78	DC	41.13
101764711	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P4_PEACH205/* \$ CHESCO \$ PEACH205 \$ STBK	breaker	378.0	101.87	106.77	DC	41.14
99336330	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP25B	breaker	804.0	108.42	129.12	DC	166.26
99336331	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP23	breaker	804.0	108.29	129.0	DC	166.26
99336332	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP24	breaker	804.0	108.28	128.99	DC	166.26
101765802	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	104.86	115.11	DC	79.93
101765808	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	100.74	111.0	DC	79.93
101765792	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	110.05	120.31	DC	79.93
101765124	232128	PINEY138	138.0	DP&L	232127	LORETTO	138.0	DP&L	1	DPL_P1_2_CKT 13787	single	158.0	110.03	114.8	DC	7.53
101765128	232128	PINEY138	138.0	DP&L	232127	LORETTO	138.0	DP&L	1	DPL_P2_1_CKT 13714-1	single	158.0	102.12	106.89	DC	7.53
101764696	232215	KENT	69.0	DP&L	232812	NMEREDTH	69.0	DP&L	1	DPL_P4-2_DP11	breaker	93.0	101.19	113.33	DC	24.97
101764553	232233	PRESTON	69.0	DP&L	232821	TANYARD	69.0	DP&L	1	DPL_P4-2_DP11	breaker	93.0	161.82	177.77	DC	33.09
101764538	232234	TODD	69.0	DP&L	232233	PRESTON	69.0	DP&L	1	DPL_P4-2_DP11	breaker	93.0	166.77	182.72	DC	33.09

11.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
99336915	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PJM	1	PECO_P1-2_5038/* \$ CHESCO \$ 5038 \$ L	operation	2905.0	133.85	137.39	DC	223.1
99337037	200064	PCHBTM1S	500.0	PJM	200004	CNASTONE	500.0	PJM	1	PECO_P1-2_5007_S/* \$ CHESCO \$ 5007 \$ L	operation	3525.0	113.65	116.1	DC	184.26
99337053	200066	PCHBTM1N	500.0	PJM	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	operation	3525.0	109.6	111.85	DC	168.81
100074496	213489	CHICHST1	230.0	PECO	213588	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ 220-04 \$ L	operation	1078.0	103.91	105.93	DC	46.98
100074488	213750	LINWOOD	230.0	PECO	214221	CHIREACT_43	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L	operation	1770.0	105.42	107.18	DC	66.79
100074494	213750	LINWOOD	230.0	PECO	214216	POST	230.0	PECO	1	PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	operation	1770.0	105.38	107.13	DC	66.53
100074508	214216	POST	230.0	PECO	214220	CHIREACT_39	230.0	PECO	1	PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	operation	1770.0	101.05	102.8	DC	66.53
100074509	214220	CHIREACT_39	230.0	PECO	213490	CHICHST2	230.0	PECO	1	PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	operation	1770.0	101.01	102.77	DC	66.53
100074491	214221	CHIREACT_43	230.0	PECO	213489	CHICHST1	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L	operation	1770.0	105.38	107.14	DC	66.79
100074455	219100	NEWFRDM	230.0	PSE&G	219704	HILLTOP_3	230.0	PSE&G	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	886.0	113.3	115.11	DC	34.67
100074306	231000	CLAY_230	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	131.66	135.33	DC	64.32
100074322	231001	EDGE MR 5	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-84	operation	804.0	129.91	133.48	DC	62.53
100074332	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	128.02	131.34	DC	58.28
101765156	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	378.0	101.85	106.74	DC	41.13
100074253	232001	COOLSPRS	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	DPL_P1_2_CKT 23034	operation	678.0	70.77	111.75	DC	278.76
99336736	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	679.0	110.79	138.52	DC	188.09
99336737	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	551.0	79.91	103.88	DC	133.54
99336835	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23030B	operation	804.0	108.77	129.17	DC	166.11
99336836	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	103.63	120.19	DC	107.48
100074247	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	110.24	138.53	DC	155.5

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
100074319	232006	INDRIV 4	230.0	DP&L	232001	COOLSPRS	230.0	DP&L	1	DPL_P1_2_CKT 23034	operation	800.0	68.98	102.13	DC	266.04
101765122	232128	PINEY138	138.0	DP&L	232127	LORETTO	138.0	DP&L	1	DPL_P1_2_CKT 13713	operation	158.0	113.13	121.07	DC	27.75

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
99336330,99336331,99336332	12	CARTANZA 230.0 kV - SILVER RUN 230.0 kV Ckt 1	<u>DPL</u> dt23032r0002 (1024) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$67,000,000 Time Estimate : 48-60 Months	\$67,000,000
101764553	18	PRESTON 69.0 kV - TANYARD 69.0 kV Ckt 1	<u>DPL</u> b2946 (1019) : PJM baseline upgrade b2946 conversion of Preston station to a Ring Bus Project Type : CON Cost : \$6,000,000 Time Estimate : 30-36 Months	\$0
100074324,100074325	10	EDGEMR 5 230.0 kV - LINWOOD 230.0 kV Ckt 1	<u>DPL</u> dt22085r0001 (1055) : 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	\$20,000,000
101764538	19	TODD 69.0 kV - PRESTON 69.0 kV Ckt 1	<u>DPL</u> b2946 (1019) : PJM baseline upgrade b2946 conversion of Preston station to a Ring Bus Project Type : CON Cost : \$6,000,000 Time Estimate : 30-36 Months ds6716r0001 (1031) : Previously identified in AB2-172, To mitigate the (DP&L) TODD to PRESTON 69 kV line (from bus 232234 to bus 232233 ckt 1) overload will require substation reinforcements at Todd Substation. Replace 600A Disconnect Switch at Todd Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months ds6716r0002 (1045) : To mitigate the (DP&L) Preston - Tanyard 69 kV line (from bus 232821 to bus 232233 ckt. 1) overload, it will require increasing the emergency rating of the Preston-Tanyard 69 kV line by replacing the terminal equipment at the Tanyard Tap Project Type : FAC Cost : \$100,000 Time Estimate : 9-12 Months	\$200,000

ID	Idx	Facility	Upgrade Description	Cost
99337054	6	PCHBTM1N 500.0 kV - FUR RUN_500 500.0 kV Ckt 1	<u>PECO</u> pe028 (1917) : 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	\$3,000,000
100073844,100 074140	1	CHICHST2 230.0 kV - CHIREACT_53 230.0 kV Ckt 1	<u>PECO</u> pe023 (1691) : 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	\$9,900,000
100073843,100 074141	2	CHIREACT_53 230.0 kV - TRAINER 230.0 kV Ckt 1		
99336393	4	ROCKSPGS 500.0 kV - PCHBTM2S 500.0 kV Ckt 1	<u>PECO</u> pe027 (1916) : Expand Peach Bottom 500 kV station to build a new 500 kV line between Beach Bottom and Rock Springs. (The estimated cost is for PECO portion only, right of way cost not included) Project Type : CON Cost : \$153,600,000 Time Estimate : 84.0 Months	\$153,600,000
101765792	15	TOWNSEND 138.0 kV - MIDLTNTNTP 138.0 kV Ckt 1	<u>DPL</u> ds13808r0001 (1017) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months dt13808r0001 (1041) : To mitigate the (DP&L) TOWNSEND to MIDLTNTNTP 138 kV line (from bus 232107 to bus 232106 ckt 1) overload, it will require increasing the emergency rating of the Townsend to Middletown Tap 138 kV line by reconductoring a small portion of the line Project Type : FAC Cost : \$100,000 Time Estimate : 9-12 Months	\$200,000
101765802	13	CHURCH 138.0 kV - TOWNSEND 138.0 kV Ckt 1	<u>DPL</u> ds13833r0001 (1037) : 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 (1038) : 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 ds13833r0001) at Church Substation. Project Type : FAC Cost : \$200,000 Time Estimate : 24.0 Months	\$700,000

ID	Idx	Facility	Upgrade Description	Cost
101765808	14	MIDLTNTP 138.0 kV - MT PLSNT 138.0 kV Ckt 1	<u>DPL</u> dt13808r0002 (1016) : Partial reconductor of 13808 line between Mt. Pleasant and Middletown Tap Project Type : FAC Cost : \$110,000 Time Estimate : 9-12 Months ds13808r0002 (1018) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months	\$210,000
100073960,100 074307	8	CLAY_230 230.0 kV - LINWOOD 230.0 kV Ckt 1	<u>DPL</u> b2985 (1030) : 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 dt22084r0001 (1053) : 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 <u>PECO</u> pe025 (1693) : 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 pe026 (1694) : Replace 1 line trap at Linwood station Project Type : FAC Cost : \$900,000 Time Estimate : 3.0 Months	\$12,500,000
99337038	5	PCHBTM1S 500.0 kV - CNASTONE 500.0 kV Ckt 1	<u>PECO</u> pe020 (1906) : Expand Peach Bottom 500 kV station to build a new 500 kV line between Beach Bottom and Conastone. (The estimated cost is for PECO portion only, right of way cost not included) Project Type : CON Cost : \$130,500,000 Time Estimate : 84.0 Months	\$130,500,000

ID	Idx	Facility	Upgrade Description	Cost
101764710,101764711	11	GLASGOW 138.0 kV - CECIL138 138.0 kV Ckt 1	<u>DPL</u> dt13810r0001 (1034) : To mitigate the (DPL) Glasgow to Cecil 138 kV line 13810 (from bus 231124 to bus 231130 ckt 1) overload, it will require increasing the emergency rating of the Glasgow to Cecil 138 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor. In addition, various terminal reinforcements are required at Glasgow. Project Type : FAC Cost : \$5,000,000 Time Estimate : 36-60 Months	\$5,000,000
100074083	7	NEWFRDM 230.0 kV - HILLTOP_3 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I001a_NFHill (1939) : Reconductor to 1080MVA SER Project Type : FAC Cost : \$29,523,000 Time Estimate : 33.0 Months	\$29,523,000
101764696	17	KENT 69.0 kV - NMEREDTH 69.0 kV Ckt 1	<u>DPL</u> dt6704r0001 (1020) : Rebuild 6704-2 Line from Kent to N. Meredith Tap. Upgrade disconnect switch @ N Meredith Project Type : FAC Cost : \$7,600,000 Time Estimate : 36-48 Months	\$7,600,000
100073973,10074333	9	EDGE MR 5 230.0 kV - CLAY_230 230.0 kV Ckt 1	<u>DPL</u> dt23015r0001 (1043) : 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
100073913	3	COOLSPRS 230.0 kV - MILF_230 230.0 kV Ckt 1	<u>DPL</u> dt23069r0001 (1070) : Rebuild 23069 Cool Spring - Milford (232001 to 232004) with new poles, conductor, foundations, insulators and OPGW Project Type : FAC Cost : \$52,000,000 Time Estimate : 48-60 Months	\$52,000,000
101765124,101765128	16	PINEY138 138.0 kV - LORETTO 138.0 kV Ckt 1	<u>DPL</u> dt13777r0001 (1029) : Reconductor Line Project Type : FAC Cost : \$17,300,000 Time Estimate : 32-48 Months	\$17,300,000
			TOTAL COST	\$532,233,000

11.6 Flow Gate Details - Primary POI

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
100074140	213490	CHICHST2	PECO	213496	CHIREACT_53	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ CHICH045 \$ STBK	breaker	841.0	98.44	100.24	DC	32.54

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.7564	50/50	10.7564
213889	PHLISCT2	10.7564	50/50	10.7564
213890	PHLISCT3	10.7564	50/50	10.7564
213893	PHLISST1	14.9026	50/50	14.9026
227881	GRENWCHG	-0.1406	Adder	-0.17
228334	MANNMILG	-0.5447	Adder	-0.64
231505	HR4	9.2936	50/50	9.2936
231708	CHRIST3	1.6887	Adder	1.99
231900	EM5	22.5694	50/50	22.5694
231901	EM4	6.0034	50/50	6.0034
231903	GEN4	0.8941	Adder	1.05
231904	DC1 NUG	2.3166	Adder	2.73
231905	DC2 NUG	2.3166	Adder	2.73
231908	HR1	4.3128	50/50	4.3128
231909	HR2	4.2772	50/50	4.2772
231910	HR3	4.3128	50/50	4.3128
231916	EM3	2.9427	50/50	2.9427
231917	EM10	0.4893	50/50	0.4893
232405	W1-003 E	0.2919	Adder	0.34
232407	W1-004 E	0.2919	Adder	0.34
232409	W1-005 E	0.2919	Adder	0.34
232411	W1-006 E	0.2919	Adder	0.34
232412	X1-032 E	0.2605	Adder	0.31
232418	X3-008 E	0.8465	Adder	1.0
232423	X3-066 E	0.2750	Adder	0.32
232425	Y1-079 E	0.4542	Adder	0.53
232427	Y1-080 E	0.1413	Adder	0.17
232429	Y3-058 E	0.6093	Adder	0.72
232433	Z2-076 E	0.1274	Adder	0.15
232435	Z2-077 E	0.1274	Adder	0.15
232436	AB1-176 C	0.1116	Adder	0.13
912161	X4-027 CT1	0.7200	50/50	0.7200
912162	X4-027 CT2	0.7262	50/50	0.7262
912163	X4-027 CT3	0.7262	50/50	0.7262
917082	Z2-012 E	0.8037	Adder	0.95
919901	AB1-000 1	2.1590	50/50	2.1590
919911	AB1-000 2	2.1590	50/50	2.1590
919921	AB1-000 3	2.1590	50/50	2.1590
923282	AB1-137 C	0.2650	Adder	0.31
923283	AB1-137 E	0.1136	Adder	0.13
923322	AB1-141 C OP	1.0048	Adder	1.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923323	AB1-141 E OP	0.4689	Adder	0.55
923332	AB1-142 C OP	1.0048	Adder	1.18
923603	AB1-176 E	0.1841	Adder	0.22
923921	AB2-032 C	1.0122	Adder	1.19
923922	AB2-032 E	0.4763	Adder	0.56
923951	AB2-036 C	2.5592	Adder	3.01
923952	AB2-036 E	4.1871	Adder	4.93
923961	AB2-037 C	5.5859	Adder	6.57
923962	AB2-037 E	9.1253	Adder	10.74
924681	AB2-120 C OP	2.4622	Adder	2.9
924682	AB2-120 E OP	4.0173	Adder	4.73
924781	AB2-130 C OP	2.0742	Adder	2.44
924782	AB2-130 E OP	3.3843	Adder	3.98
924801	AB2-133 C OP	1.8359	Adder	2.16
924802	AB2-133 E OP	2.3285	Adder	2.74
924821	AB2-135 C	2.1455	Adder	2.52
924822	AB2-135 E	2.4469	Adder	2.88
924831	AB2-136 C	1.6756	Adder	1.97
924832	AB2-136 E	1.7770	Adder	2.09
924971	AB2-153 C	0.5656	Adder	0.67
924972	AB2-153 E	0.9229	Adder	1.09
925151	AB2-172 C OP	1.2970	Adder	1.53
925152	AB2-172 E OP	2.1162	Adder	2.49
925251	AB2-179 C OP	3.0589	Adder	3.6
925252	AB2-179 E OP	1.0088	Adder	1.19
925261	AB2-180 C	0.9173	Adder	1.08
925262	AB2-180 E	0.3931	Adder	0.46
925271	AB2-185 C OP	1.0255	Adder	1.21
925272	AB2-185 E OP	0.4395	Adder	0.52
927031	AC1-190 C	2.3848	Adder	2.81
927032	AC1-190 E	1.0220	Adder	1.2
927191	AC1-213 C	0.2083	Adder	0.25
927192	AC1-213 E	0.1367	Adder	0.16
930201	AB1-056 C	4.0480	Adder	4.76
930202	AB1-056 E	11.5281	Adder	13.56
930881	AB1-137 C	0.2650	Adder	0.31
930882	AB1-137 E	0.1136	Adder	0.13
930932	AB1-142 E OP	0.4689	Adder	0.55
932161	AC2-023 C	1.7443	Adder	2.05
932162	AC2-023 E	1.2704	Adder	1.49
933641	AC2-186 C	1.1799	Adder	1.39
933642	AC2-186 E	1.9251	Adder	2.26
934661	AD1-097 1	3.4832	50/50	3.4832
934671	AD1-097 2	3.4832	50/50	3.4832
934681	AD1-097 3	3.4832	50/50	3.4832
934691	AD1-097 4	2.0618	50/50	2.0618
936451	AD2-059 C	0.0270	Adder	0.03
936452	AD2-059 E	0.0847	Adder	0.1
936611	AD2-076 C O1	1.3909	Adder	1.64
936612	AD2-076 E O1	2.2693	Adder	2.67
938651	AE1-087 C	1.0922	Adder	1.28
938652	AE1-087 E	0.2731	Adder	0.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938811	AE1-107 C	2.6005	Adder	3.06
938812	AE1-107 E	1.8539	Adder	2.18
938873	AE1-115 BAT	1.5348	Merchant Transmission	1.5348
938891	AE1-117 C O1	2.6188	Adder	3.08
938892	AE1-117 E O1	6.9730	Adder	8.2
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.6192	Adder	3.08
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	6.9739	Adder	8.2
939151	AE1-145	1.2957	Adder	1.52
939621	AE1-192 C O1	3.0462	Adder	3.58
939622	AE1-192 E O1	1.4907	Adder	1.75
941021	AE2-093 C	1.4168	Adder	1.67
941022	AE2-093 E	2.2510	Adder	2.65
941181	AE2-112 C	0.4825	Adder	0.57
941182	AE2-112 E	0.7873	Adder	0.93
942441	AE2-257 C	2.0810	Adder	2.45
942442	AE2-257 E	5.4864	Adder	6.45
943361	AF1-007 C	0.1194	Adder	0.14
943362	AF1-007 E	0.3394	Adder	0.4
943441	AF1-015 C	0.4531	Adder	0.53
943442	AF1-015 E	0.6257	Adder	0.74
943651	AF1-036 C	0.6275	Adder	0.74
943652	AF1-036 E	0.8665	Adder	1.02
944921	AF1-157 C O1	0.9554	Adder	1.12
944922	AF1-157 E O1	0.6369	Adder	0.75
945661	AF1-231 C	0.4926	Adder	0.58
945662	AF1-231 E	0.7390	Adder	0.87
945781	AF1-243	0.3241	Adder	0.38
945791	AF1-244	0.5216	Adder	0.61
945931	AF1-258	0.2097	Adder	0.25
945941	AF1-259	0.0591	Adder	0.07
946041	AF1-269 (Withdrawn : 05/12/2020)	0.7401	Adder	0.87
957293	AF2-023 BAT	2.0341	Merchant Transmission	2.0341
957303	AF2-024 BAT	2.7200	Merchant Transmission	2.7200
957611	AF2-055 C	1.2023	Adder	2.67
957612	AF2-055 E	0.5153	Adder	1.14
957661	AF2-060	0.3090	Adder	0.69
957671	AF2-061 O1	1.3735	Adder	3.05
958151	AF2-109 C	0.3955	Adder	0.88
958152	AF2-109 E	0.3955	Adder	0.88
959021	AF2-193 C O1	3.9644	Adder	8.8
959022	AF2-193 E O1	10.6939	Adder	23.74
959031	AF2-194 C O1	3.9644	Adder	8.8
959032	AF2-194 E O1	10.6939	Adder	23.74
959051	AF2-196 C	0.3008	Adder	0.67
959052	AF2-196 E	0.7019	Adder	1.56
959161	AF2-207 C O1	0.6938	Adder	1.54
959162	AF2-207 E O1	1.0407	Adder	2.31
959571	AF2-248 C	0.1171	Adder	0.26

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959572	AF2-248 E	0.1309	Adder	0.29
959581	AF2-249 C	0.0207	Adder	0.05
959582	AF2-249 E	0.0827	Adder	0.18
959591	AF2-250 C	0.0379	Adder	0.08
959592	AF2-250 E	0.0293	Adder	0.07
960221	AF2-313 C	0.4976	Adder	1.1
960222	AF2-313 E	0.2821	Adder	0.63
960341	AF2-325 C	0.1510	Adder	0.34
960342	AF2-325 E	0.2085	Adder	0.46
960671	AF2-358 C O1	2.1359	Adder	4.74
960672	AF2-358 E O1	1.4239	Adder	3.16
960871	AF2-378 C	0.0398	Adder	0.09
960872	AF2-378 E	0.0552	Adder	0.12
960881	AF2-379 C	0.0567	Adder	0.13
960882	AF2-379 E	0.0782	Adder	0.17
960941	AF2-385 C O1	1.6519	Adder	3.67
960942	AF2-385 E O1	0.9292	Adder	2.06
960961	AF2-387 C O1	2.5656	Adder	5.7
960962	AF2-387 E O1	1.2866	Adder	2.86
961181	AF2-409 O1	3.5671	Adder	7.92
NEWTON	NEWTON	0.0548	Confirmed LTF	0.0548
CPL	CPL	0.0079	Confirmed LTF	0.0079
FARMERCITY	FARMERCITY	0.0027	Confirmed LTF	0.0027
CALDERWOOD	CALDERWOOD	0.0129	Confirmed LTF	0.0129
NY	NY	0.8505	Confirmed LTF	0.8505
PRAIRIE	PRAIRIE	0.1214	Confirmed LTF	0.1214
O-066	O-066	13.9978	Confirmed LTF	13.9978
CHEOAH	CHEOAH	0.0130	Confirmed LTF	0.0130
EDWARDS	EDWARDS	0.0192	Confirmed LTF	0.0192
TILTON	TILTON	0.0340	Confirmed LTF	0.0340
G-007	G-007	2.4721	Confirmed LTF	2.4721
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
GIBSON	GIBSON	0.0284	Confirmed LTF	0.0284
BLUEG	BLUEG	0.0903	Confirmed LTF	0.0903
TRIMBLE	TRIMBLE	0.0289	Confirmed LTF	0.0289
CATAWBA	CATAWBA	0.0017	Confirmed LTF	0.0017

11.6.2 Index 2

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
10007414 1	21349 6	CHIREACT_5 3	PECO	21397 2	TRAINER	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ CHICH045 \$ STBK	breaker	841.0	98.44	100.24	DC	32.54

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213888	PHLISCT1	10.7564	50/50	10.7564
213889	PHLISCT2	10.7564	50/50	10.7564
213890	PHLISCT3	10.7564	50/50	10.7564
213893	PHLISST1	14.9026	50/50	14.9026
227881	GRENWCHG	-0.1406	Adder	-0.17
228334	MANNMILG	-0.5447	Adder	-0.64
231505	HR4	9.2936	50/50	9.2936
231708	CHRIST3	1.6887	Adder	1.99
231900	EM5	22.5694	50/50	22.5694
231901	EM4	6.0034	50/50	6.0034
231903	GEN4	0.8941	Adder	1.05
231904	DC1 NUG	2.3166	Adder	2.73
231905	DC2 NUG	2.3166	Adder	2.73
231908	HR1	4.3128	50/50	4.3128
231909	HR2	4.2772	50/50	4.2772
231910	HR3	4.3128	50/50	4.3128
231916	EM3	2.9427	50/50	2.9427
231917	EM10	0.4893	50/50	0.4893
232405	W1-003 E	0.2919	Adder	0.34
232407	W1-004 E	0.2919	Adder	0.34
232409	W1-005 E	0.2919	Adder	0.34
232411	W1-006 E	0.2919	Adder	0.34
232412	X1-032 E	0.2605	Adder	0.31
232418	X3-008 E	0.8465	Adder	1.0
232423	X3-066 E	0.2750	Adder	0.32
232425	Y1-079 E	0.4542	Adder	0.53
232427	Y1-080 E	0.1413	Adder	0.17
232429	Y3-058 E	0.6093	Adder	0.72
232433	Z2-076 E	0.1274	Adder	0.15
232435	Z2-077 E	0.1274	Adder	0.15
232436	AB1-176 C	0.1116	Adder	0.13
912161	X4-027 CT1	0.7200	50/50	0.7200
912162	X4-027 CT2	0.7262	50/50	0.7262
912163	X4-027 CT3	0.7262	50/50	0.7262
917082	Z2-012 E	0.8037	Adder	0.95
919901	AB1-000 1	2.1590	50/50	2.1590
919911	AB1-000 2	2.1590	50/50	2.1590
919921	AB1-000 3	2.1590	50/50	2.1590
923282	AB1-137 C	0.2650	Adder	0.31
923283	AB1-137 E	0.1136	Adder	0.13
923322	AB1-141 C OP	1.0048	Adder	1.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923323	AB1-141 E OP	0.4689	Adder	0.55
923332	AB1-142 C OP	1.0048	Adder	1.18
923603	AB1-176 E	0.1841	Adder	0.22
923921	AB2-032 C	1.0122	Adder	1.19
923922	AB2-032 E	0.4763	Adder	0.56
923951	AB2-036 C	2.5592	Adder	3.01
923952	AB2-036 E	4.1871	Adder	4.93
923961	AB2-037 C	5.5859	Adder	6.57
923962	AB2-037 E	9.1253	Adder	10.74
924681	AB2-120 C OP	2.4622	Adder	2.9
924682	AB2-120 E OP	4.0173	Adder	4.73
924781	AB2-130 C OP	2.0742	Adder	2.44
924782	AB2-130 E OP	3.3843	Adder	3.98
924801	AB2-133 C OP	1.8359	Adder	2.16
924802	AB2-133 E OP	2.3285	Adder	2.74
924821	AB2-135 C	2.1455	Adder	2.52
924822	AB2-135 E	2.4469	Adder	2.88
924831	AB2-136 C	1.6756	Adder	1.97
924832	AB2-136 E	1.7770	Adder	2.09
924971	AB2-153 C	0.5656	Adder	0.67
924972	AB2-153 E	0.9229	Adder	1.09
925151	AB2-172 C OP	1.2970	Adder	1.53
925152	AB2-172 E OP	2.1162	Adder	2.49
925251	AB2-179 C OP	3.0589	Adder	3.6
925252	AB2-179 E OP	1.0088	Adder	1.19
925261	AB2-180 C	0.9173	Adder	1.08
925262	AB2-180 E	0.3931	Adder	0.46
925271	AB2-185 C OP	1.0255	Adder	1.21
925272	AB2-185 E OP	0.4395	Adder	0.52
927031	AC1-190 C	2.3848	Adder	2.81
927032	AC1-190 E	1.0220	Adder	1.2
927191	AC1-213 C	0.2083	Adder	0.25
927192	AC1-213 E	0.1367	Adder	0.16
930201	AB1-056 C	4.0480	Adder	4.76
930202	AB1-056 E	11.5281	Adder	13.56
930881	AB1-137 C	0.2650	Adder	0.31
930882	AB1-137 E	0.1136	Adder	0.13
930932	AB1-142 E OP	0.4689	Adder	0.55
932161	AC2-023 C	1.7443	Adder	2.05
932162	AC2-023 E	1.2704	Adder	1.49
933641	AC2-186 C	1.1799	Adder	1.39
933642	AC2-186 E	1.9251	Adder	2.26
934661	AD1-097 1	3.4832	50/50	3.4832
934671	AD1-097 2	3.4832	50/50	3.4832
934681	AD1-097 3	3.4832	50/50	3.4832
934691	AD1-097 4	2.0618	50/50	2.0618
936451	AD2-059 C	0.0270	Adder	0.03
936452	AD2-059 E	0.0847	Adder	0.1
936611	AD2-076 C O1	1.3909	Adder	1.64
936612	AD2-076 E O1	2.2693	Adder	2.67
938651	AE1-087 C	1.0922	Adder	1.28
938652	AE1-087 E	0.2731	Adder	0.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938811	AE1-107 C	2.6005	Adder	3.06
938812	AE1-107 E	1.8539	Adder	2.18
938873	AE1-115 BAT	1.5348	Merchant Transmission	1.5348
938891	AE1-117 C O1	2.6188	Adder	3.08
938892	AE1-117 E O1	6.9730	Adder	8.2
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.6192	Adder	3.08
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	6.9739	Adder	8.2
939151	AE1-145	1.2957	Adder	1.52
939621	AE1-192 C O1	3.0462	Adder	3.58
939622	AE1-192 E O1	1.4907	Adder	1.75
941021	AE2-093 C	1.4168	Adder	1.67
941022	AE2-093 E	2.2510	Adder	2.65
941181	AE2-112 C	0.4825	Adder	0.57
941182	AE2-112 E	0.7873	Adder	0.93
942441	AE2-257 C	2.0810	Adder	2.45
942442	AE2-257 E	5.4864	Adder	6.45
943361	AF1-007 C	0.1194	Adder	0.14
943362	AF1-007 E	0.3394	Adder	0.4
943441	AF1-015 C	0.4531	Adder	0.53
943442	AF1-015 E	0.6257	Adder	0.74
943651	AF1-036 C	0.6275	Adder	0.74
943652	AF1-036 E	0.8665	Adder	1.02
944921	AF1-157 C O1	0.9554	Adder	1.12
944922	AF1-157 E O1	0.6369	Adder	0.75
945661	AF1-231 C	0.4926	Adder	0.58
945662	AF1-231 E	0.7390	Adder	0.87
945781	AF1-243	0.3241	Adder	0.38
945791	AF1-244	0.5216	Adder	0.61
945931	AF1-258	0.2097	Adder	0.25
945941	AF1-259	0.0591	Adder	0.07
946041	AF1-269 (Withdrawn : 05/12/2020)	0.7401	Adder	0.87
957293	AF2-023 BAT	2.0341	Merchant Transmission	2.0341
957303	AF2-024 BAT	2.7200	Merchant Transmission	2.7200
957611	AF2-055 C	1.2023	Adder	2.67
957612	AF2-055 E	0.5153	Adder	1.14
957661	AF2-060	0.3090	Adder	0.69
957671	AF2-061 O1	1.3735	Adder	3.05
958151	AF2-109 C	0.3955	Adder	0.88
958152	AF2-109 E	0.3955	Adder	0.88
959021	AF2-193 C O1	3.9644	Adder	8.8
959022	AF2-193 E O1	10.6939	Adder	23.74
959031	AF2-194 C O1	3.9644	Adder	8.8
959032	AF2-194 E O1	10.6939	Adder	23.74
959051	AF2-196 C	0.3008	Adder	0.67
959052	AF2-196 E	0.7019	Adder	1.56
959161	AF2-207 C O1	0.6938	Adder	1.54
959162	AF2-207 E O1	1.0407	Adder	2.31
959571	AF2-248 C	0.1171	Adder	0.26

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959572	AF2-248 E	0.1309	Adder	0.29
959581	AF2-249 C	0.0207	Adder	0.05
959582	AF2-249 E	0.0827	Adder	0.18
959591	AF2-250 C	0.0379	Adder	0.08
959592	AF2-250 E	0.0293	Adder	0.07
960221	AF2-313 C	0.4976	Adder	1.1
960222	AF2-313 E	0.2821	Adder	0.63
960341	AF2-325 C	0.1510	Adder	0.34
960342	AF2-325 E	0.2085	Adder	0.46
960671	AF2-358 C O1	2.1359	Adder	4.74
960672	AF2-358 E O1	1.4239	Adder	3.16
960871	AF2-378 C	0.0398	Adder	0.09
960872	AF2-378 E	0.0552	Adder	0.12
960881	AF2-379 C	0.0567	Adder	0.13
960882	AF2-379 E	0.0782	Adder	0.17
960941	AF2-385 C O1	1.6519	Adder	3.67
960942	AF2-385 E O1	0.9292	Adder	2.06
960961	AF2-387 C O1	2.5656	Adder	5.7
960962	AF2-387 E O1	1.2866	Adder	2.86
961181	AF2-409 O1	3.5671	Adder	7.92
NEWTON	NEWTON	0.0548	Confirmed LTF	0.0548
CPL	CPL	0.0079	Confirmed LTF	0.0079
FARMERCITY	FARMERCITY	0.0027	Confirmed LTF	0.0027
CALDERWOOD	CALDERWOOD	0.0129	Confirmed LTF	0.0129
NY	NY	0.8505	Confirmed LTF	0.8505
PRAIRIE	PRAIRIE	0.1214	Confirmed LTF	0.1214
O-066	O-066	13.9978	Confirmed LTF	13.9978
CHEOAH	CHEOAH	0.0130	Confirmed LTF	0.0130
EDWARDS	EDWARDS	0.0192	Confirmed LTF	0.0192
TILTON	TILTON	0.0340	Confirmed LTF	0.0340
G-007	G-007	2.4721	Confirmed LTF	2.4721
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
GIBSON	GIBSON	0.0284	Confirmed LTF	0.0284
BLUEG	BLUEG	0.0903	Confirmed LTF	0.0903
TRIMBLE	TRIMBLE	0.0289	Confirmed LTF	0.0289
CATAWBA	CATAWBA	0.0017	Confirmed LTF	0.0017

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
100073913	232001	COOLSPRS	DP&L	232004	MILF_230	DP&L	1	DPL_P4-2_DP15	breaker	678.0	63.12	106.88	DC	297.92

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.3872	50/50	0.3872
232405	W1-003 E	1.1070	Adder	1.3
232407	W1-004 E	1.1070	Adder	1.3
232409	W1-005 E	1.1070	Adder	1.3
232411	W1-006 E	1.1070	Adder	1.3
232412	X1-032 E	0.9717	Adder	1.14
232418	X3-008 E	2.1847	Adder	2.57
232427	Y1-080 E	0.4411	Adder	0.52
232428	Y3-058 C	0.3192	50/50	0.3192
232429	Y3-058 E	3.0192	50/50	3.0192
232432	Z2-076 C	0.3980	50/50	0.3980
232433	Z2-076 E	1.1625	50/50	1.1625
232434	Z2-077 C	0.3980	50/50	0.3980
232435	Z2-077 E	1.1625	50/50	1.1625
232851	DUP-SFR1	0.5447	50/50	0.5447
232904	IR4	48.3402	50/50	48.3402
232905	BAYVIEW1	0.6248	50/50	0.6248
232920	IR10	1.7530	50/50	1.7530
232921	TASLEY2G	1.0949	50/50	1.0949
293670	O-025 C	0.3561	50/50	0.3561
917081	Z2-012 C	0.3799	50/50	0.3799
917082	Z2-012 E	3.5930	50/50	3.5930
923282	AB1-137 C	2.5984	50/50	2.5984
923283	AB1-137 E	1.1136	50/50	1.1136
924681	AB2-120 C OP	11.0059	50/50	11.0059
924682	AB2-120 E OP	17.9571	50/50	17.9571
924781	AB2-130 C OP	11.9184	50/50	11.9184
924782	AB2-130 E OP	19.4458	50/50	19.4458
924831	AB2-136 C	4.9610	Adder	5.84
924832	AB2-136 E	5.2610	Adder	6.19
925151	AB2-172 C OP	3.3476	Adder	3.94
925152	AB2-172 E OP	5.4618	Adder	6.43
925261	AB2-180 C	4.5451	50/50	4.5451
925262	AB2-180 E	1.9479	50/50	1.9479
927031	AC1-190 C	6.3124	Adder	7.43
927032	AC1-190 E	2.7053	Adder	3.18
927191	AC1-213 C	1.1009	50/50	1.1009
927192	AC1-213 E	0.7225	50/50	0.7225
930201	AB1-056 C	43.6040	50/50	43.6040
930202	AB1-056 E	124.1765	50/50	124.1765
930881	AB1-137 C	2.5984	50/50	2.5984
930882	AB1-137 E	1.1136	50/50	1.1136

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
932161	AC2-023 C	8.2410	50/50	8.2410
932162	AC2-023 E	6.0019	50/50	6.0019
933641	AC2-186 C	2.0645	Adder	2.43
933642	AC2-186 E	3.3683	Adder	3.96
938651	AE1-087 C	2.8190	Adder	3.32
938652	AE1-087 E	0.7048	Adder	0.83
938891	AE1-117 C O1	25.7030	50/50	25.7030
938892	AE1-117 E O1	68.4382	50/50	68.4382
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	25.6184	50/50	25.6184
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	68.2128	50/50	68.2128
939151	AE1-145	5.8088	50/50	5.8088
939621	AE1-192 C O1	13.6187	50/50	13.6187
939622	AE1-192 E O1	6.6645	50/50	6.6645
942441	AE2-257 C	20.7738	50/50	20.7738
942442	AE2-257 E	54.7674	50/50	54.7674
943361	AF1-007 C	1.2865	50/50	1.2865
943362	AF1-007 E	3.6562	50/50	3.6562
944921	AF1-157 C O1	7.3694	50/50	7.3694
944922	AF1-157 E O1	4.9129	50/50	4.9129
945661	AF1-231 C	1.8695	Adder	2.2
945662	AF1-231 E	2.8043	Adder	3.3
945781	AF1-243	1.4488	50/50	1.4488
945791	AF1-244	1.9377	Adder	2.28
945931	AF1-258	1.0389	50/50	1.0389
946041	AF1-269 (Withdrawn : 05/12/2020)	2.3107	Adder	2.72
957611	AF2-055 C	10.1416	50/50	10.1416
957612	AF2-055 E	4.3464	50/50	4.3464
957661	AF2-060	2.6140	50/50	2.6140
957671	AF2-061 O1	11.6176	50/50	11.6176
959021	AF2-193 C O1	80.5725	50/50	80.5725
959022	AF2-193 E O1	217.3427	50/50	217.3427
959031	AF2-194 C O1	80.5725	50/50	80.5725
959032	AF2-194 E O1	217.3427	50/50	217.3427
959051	AF2-196 C	5.6656	50/50	5.6656
959052	AF2-196 E	13.2197	50/50	13.2197
959161	AF2-207 C O1	7.3513	50/50	7.3513
959162	AF2-207 E O1	11.0270	50/50	11.0270
959571	AF2-248 C	1.2138	50/50	1.2138
959572	AF2-248 E	1.3566	50/50	1.3566
959581	AF2-249 C	0.2142	50/50	0.2142
959582	AF2-249 E	0.8568	50/50	0.8568
959591	AF2-250 C	0.3927	50/50	0.3927
959592	AF2-250 E	0.3035	50/50	0.3035
960341	AF2-325 C	0.4266	Adder	0.95
960342	AF2-325 E	0.5891	Adder	1.31
960671	AF2-358 C O1	6.7964	Adder	15.09
960672	AF2-358 E O1	4.5309	Adder	10.06
960871	AF2-378 C	0.1154	Adder	0.26

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960872	AF2-378 E	0.1601	Adder	0.36
960881	AF2-379 C	0.4962	50/50	0.4962
960882	AF2-379 E	0.6838	50/50	0.6838
960941	AF2-385 C O1	17.5032	50/50	17.5032
960942	AF2-385 E O1	9.8456	50/50	9.8456
961181	AF2-409 O1	10.9688	Adder	24.35
NEWTON	NEWTON	0.2718	Confirmed LTF	0.2718
FARMERCITY	FARMERCITY	0.0142	Confirmed LTF	0.0142
CALDERWOOD	CALDERWOOD	0.1257	Confirmed LTF	0.1257
NY	NY	0.1493	Confirmed LTF	0.1493
PRAIRIE	PRAIRIE	0.6535	Confirmed LTF	0.6535
O-066	O-066	1.8346	Confirmed LTF	1.8346
CHEOAH	CHEOAH	0.1266	Confirmed LTF	0.1266
EDWARDS	EDWARDS	0.0885	Confirmed LTF	0.0885
TILTON	TILTON	0.1594	Confirmed LTF	0.1594
G-007	G-007	0.2891	Confirmed LTF	0.2891
GIBSON	GIBSON	0.1381	Confirmed LTF	0.1381
BLUEG	BLUEG	0.4392	Confirmed LTF	0.4392
TRIMBLE	TRIMBLE	0.1408	Confirmed LTF	0.1408
CATAWBA	CATAWBA	0.0885	Confirmed LTF	0.0885

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
99336393	200051	ROCKSPGS	PJM	200065	PCHBTM2S	PJM	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	135.24	138.81	DC	224.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200052	ROCKSP 1	16.6890	50/50	16.6890
200053	ROCKSP 2	16.6890	50/50	16.6890
200054	ROCKSP 3	16.8421	50/50	16.8421
200055	ROCKSP 4	16.8421	50/50	16.8421
200062	SALEM G3	16.2247	Adder	19.09
227928	V4-067E	0.4406	Adder	0.52
228102	BLE#2 ST (Deactivation : 30/04/2019)	42.5055	Adder	50.01
228261	V4-054E	1.7764	Adder	2.09
228334	MANNMILG	2.3111	Adder	2.72
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.4777	Adder	0.56
228357	V2-046E	3.5420	Adder	4.17
228712	V2-041E	0.7384	Adder	0.87
228721	V2-035E	0.3430	Adder	0.4
228733	AB1-119 E	0.2013	Adder	0.24
231708	CHRIST3	3.9092	Adder	4.6
231903	GEN4	4.5764	Adder	5.38
231904	DC1 NUG	11.8569	Adder	13.95
231905	DC2 NUG	11.8569	Adder	13.95
231911	HR5	11.3695	50/50	11.3695
231912	HR6	11.3695	50/50	11.3695
231913	HR7	11.3695	50/50	11.3695
231914	HR8	17.2816	50/50	17.2816
232003	CARTANZA	27.4782	50/50	27.4782
232405	W1-003 E	1.9515	Adder	2.3
232407	W1-004 E	1.9515	Adder	2.3
232409	W1-005 E	1.9515	Adder	2.3
232411	W1-006 E	1.9515	Adder	2.3
232412	X1-032 E	1.7334	Adder	2.04
232418	X3-008 E	5.3366	Adder	6.28
232423	X3-066 E	1.5503	Adder	1.82
232425	Y1-079 E	2.6117	Adder	3.07
232427	Y1-080 E	0.9063	Adder	1.07
232429	Y3-058 E	4.0261	Adder	4.74
232433	Z2-076 E	0.8725	Adder	1.03
232435	Z2-077 E	0.8725	Adder	1.03
232436	AB1-176 C	0.6293	Adder	0.74
232922	MR3 (Deactivation : 01/06/2021)	44.6678	Adder	52.55
902092	W1-130E	1.5601	Adder	1.84
902432	W2-030 E	1.6428	Adder	1.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
913271	Y1-065 C	132.2819	50/50	132.2819
917082	Z2-012 E	5.3751	Adder	6.32
919831	AA2-069 (Suspended)	197.5019	Adder	232.36
923153	AB1-116 E	0.2133	Adder	0.25
923282	AB1-137 C	1.8237	Adder	2.15
923283	AB1-137 E	0.7816	Adder	0.92
923322	AB1-141 C OP	5.6214	Adder	6.61
923323	AB1-141 E OP	2.6233	Adder	3.09
923332	AB1-142 C OP	5.6214	Adder	6.61
923532	AB1-169AC	150.5350	Adder	177.1
923603	AB1-176 E	1.0377	Adder	1.22
923921	AB2-032 C	5.6630	Adder	6.66
923922	AB2-032 E	2.6649	Adder	3.14
923951	AB2-036 C	14.7305	Adder	17.33
923952	AB2-036 E	24.1005	Adder	28.35
923961	AB2-037 C	33.1367	Adder	38.98
923962	AB2-037 E	54.1333	Adder	63.69
924051	AB2-049 C	1.0480	Adder	1.23
924052	AB2-049 E	1.7099	Adder	2.01
924531	AB2-102 C	68.4675	Adder	80.55
924532	AB2-102 E	1.5215	Adder	1.79
924681	AB2-120 C OP	16.4727	Adder	19.38
924682	AB2-120 E OP	26.8765	Adder	31.62
924701	AB2-122 C	0.1904	Adder	0.22
924702	AB2-122 E	0.3264	Adder	0.38
924781	AB2-130 C OP	13.9977	Adder	16.47
924782	AB2-130 E OP	22.8383	Adder	26.87
924801	AB2-133 C OP	10.1386	Adder	11.93
924802	AB2-133 E OP	12.8588	Adder	15.13
924821	AB2-135 C	12.4478	Adder	14.64
924822	AB2-135 E	14.1963	Adder	16.7
924831	AB2-136 C	10.6939	Adder	12.58
924832	AB2-136 E	11.3407	Adder	13.34
924971	AB2-153 C	3.1646	Adder	3.72
924972	AB2-153 E	5.1633	Adder	6.07
925151	AB2-172 C OP	8.1771	Adder	9.62
925152	AB2-172 E OP	13.3415	Adder	15.7
925251	AB2-179 C OP	14.7173	Adder	17.31
925252	AB2-179 E OP	4.8536	Adder	5.71
925261	AB2-180 C	6.0608	Adder	7.13
925262	AB2-180 E	2.5975	Adder	3.06
925271	AB2-185 C OP	5.8973	Adder	6.94
925272	AB2-185 E OP	2.5274	Adder	2.97
926131	AC1-091 C	3.2822	Adder	3.86
926132	AC1-091 E	5.3828	Adder	6.33
926141	AC1-092 C	3.2822	Adder	3.86
926142	AC1-092 E	5.3828	Adder	6.33
926151	AC1-093 C	3.1071	Adder	3.66
926152	AC1-093 E	5.1202	Adder	6.02
926161	AC1-094 C	2.6257	Adder	3.09
926162	AC1-094 E	4.3325	Adder	5.1
927031	AC1-190 C	15.0684	Adder	17.73

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927032	AC1-190 E	6.4579	Adder	7.6
927191	AC1-213 C	1.3862	Adder	1.63
927192	AC1-213 E	0.9097	Adder	1.07
930201	AB1-056 C	27.9738	Adder	32.91
930202	AB1-056 E	79.6645	Adder	93.72
930881	AB1-137 C	1.8237	Adder	2.15
930882	AB1-137 E	0.7816	Adder	0.92
930932	AB1-142 E OP	2.6233	Adder	3.09
932081	AC2-018 C1	0.5629	50/50	0.5629
932082	AC2-018 E1	21.2116	50/50	21.2116
932091	AC2-018 C2	0.5629	50/50	0.5629
932092	AC2-018 E2	21.2116	50/50	21.2116
932161	AC2-023 C	11.4670	Adder	13.49
932162	AC2-023 E	8.3515	Adder	9.83
933631	AC2-185 C	6.6519	Adder	7.83
933632	AC2-185 E	10.8530	Adder	12.77
933641	AC2-186 C	8.2210	Adder	9.67
933642	AC2-186 E	13.4132	Adder	15.78
933962	AD1-019 E	2.0666	Adder	2.43
936451	AD2-059 C	0.0915	Adder	0.11
936452	AD2-059 E	0.2872	Adder	0.34
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.1461	Adder	0.17
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.2013	Adder	0.24
936501	AD2-065 C	0.2923	Adder	0.34
936502	AD2-065 E	0.4032	Adder	0.47
936611	AD2-076 C O1	7.7313	Adder	9.1
936612	AD2-076 E O1	12.6143	Adder	14.84
937011	AD2-135 C	0.1697	Adder	0.2
937012	AD2-135 E	0.2885	Adder	0.34
937281	AD2-167	7.3177	50/50	7.3177
938421	AE1-061 C	0.7527	Adder	0.89
938422	AE1-061 E	0.7527	Adder	0.89
938431	AE1-062 C	2.7281	Adder	3.21
938432	AE1-062 E	2.7281	Adder	3.21
938651	AE1-087 C	6.8860	Adder	8.1
938652	AE1-087 E	1.7215	Adder	2.03
938781	AE1-104 C O1	34.3096	Adder	40.36
938782	AE1-104 E O1	87.7807	Adder	103.27
938811	AE1-107 C	12.1342	Adder	14.28
938812	AE1-107 E	8.6505	Adder	10.18
938871	AE1-115 C	2.7742	Adder	3.26
938872	AE1-115 E	2.7742	Adder	3.26
938891	AE1-117 C O1	18.0199	Adder	21.2
938892	AE1-117 E O1	47.9806	Adder	56.45
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	18.0195	Adder	21.2
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	47.9797	Adder	56.45
939151	AE1-145	8.6698	Adder	10.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939301	AE1-161 C	5.4777	Adder	6.44
939302	AE1-161 E	8.2166	Adder	9.67
939501	AE1-179 C O1	10.1819	Adder	11.98
939502	AE1-179 E O1	7.1855	Adder	8.45
939621	AE1-192 C O1	20.3733	Adder	23.97
939622	AE1-192 E O1	9.9699	Adder	11.73
939821	AE1-218 C O1	0.2175	Adder	0.26
939822	AE1-218 E O1	0.3262	Adder	0.38
939831	AE1-219 C O1	0.4893	Adder	0.58
939832	AE1-219 E O1	0.7068	Adder	0.83
939931	AE1-229 C O1	24.8457	Adder	29.23
939932	AE1-229 E O1	16.8337	Adder	19.8
940001	AE1-240 C O1	8.4379	Adder	9.93
940002	AE1-240 E O1	6.0229	Adder	7.09
940361	AE2-020 C	28.7011	Adder	33.77
940362	AE2-020 E	134.3805	Adder	158.09
940371	AE2-021 C	28.7011	Adder	33.77
940372	AE2-021 E	134.3805	Adder	158.09
940381	AE2-022 C	16.7423	Adder	19.7
940382	AE2-022 E	78.3886	Adder	92.22
940741	AE2-061	0.9851	50/50	0.9851
941021	AE2-093 C	8.4185	Adder	9.9
941022	AE2-093 E	13.3757	Adder	15.74
941181	AE2-112 C	2.6823	Adder	3.16
941182	AE2-112 E	4.3764	Adder	5.15
942101	AE2-222 C O1	23.1841	Adder	27.28
942102	AE2-222 E O1	58.2399	Adder	68.52
942381	AE2-251 C	90.9245	Adder	106.97
942382	AE2-251 E	232.6501	Adder	273.71
942441	AE2-257 C	14.3299	Adder	16.86
942442	AE2-257 E	37.7788	Adder	44.45
943071	AE2-334 C	7.8723	Adder	9.26
943072	AE2-334 E	4.1967	Adder	4.94
943361	AF1-007 C	0.8253	Adder	0.97
943362	AF1-007 E	2.3456	Adder	2.76
943441	AF1-015 C	2.6922	Adder	3.17
943442	AF1-015 E	3.7178	Adder	4.37
943651	AF1-036 C	3.4878	Adder	4.1
943652	AF1-036 E	4.8165	Adder	5.67
943732	AF1-041 E	0.6506	Adder	0.77
944921	AF1-157 C O1	6.5061	Adder	7.65
944922	AF1-157 E O1	4.3374	Adder	5.1
944951	AF1-160 C	2.7281	Adder	3.21
944952	AF1-160 E	2.8645	Adder	3.37
945431	AF1-208 C O1	7.6664	Adder	9.02
945432	AF1-208 E O1	5.1110	Adder	6.01
945661	AF1-231 C	3.2944	Adder	3.88
945662	AF1-231 E	4.9416	Adder	5.81
945731	AF1-238 C	14.9050	Adder	17.54
945732	AF1-238 E	22.3575	Adder	26.3
945741	AF1-239 C	3.5071	Adder	4.13
945742	AF1-239 E	5.2606	Adder	6.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945781	AF1-243	2.1674	Adder	2.55
945791	AF1-244	3.4666	Adder	4.08
945931	AF1-258	1.3853	Adder	1.63
945941	AF1-259	0.3334	Adder	0.39
945971	AF1-262	0.2490	Adder	0.29
946041	AF1-269 (Withdrawn : 05/12/2020)	4.7471	Adder	5.58
957221	AF2-016 C	17.3652	Adder	38.55
957222	AF2-016 E	26.0477	Adder	57.82
957251	AF2-019 C	2.4710	Adder	5.49
957252	AF2-019 E	3.7066	Adder	8.23
957261	AF2-020 C	1.2145	Adder	2.7
957262	AF2-020 E	1.8218	Adder	4.04
957281	AF2-022 C	3.1768	Adder	7.05
957282	AF2-022 E	4.7653	Adder	10.58
957291	AF2-023 C O1	2.9406	Adder	6.53
957292	AF2-023 E O1	4.4109	Adder	9.79
957311	AF2-025 C	1.1550	Adder	2.56
957312	AF2-025 E	1.7325	Adder	3.85
957321	AF2-026 C	1.8860	Adder	4.19
957322	AF2-026 E	2.8291	Adder	6.28
957611	AF2-055 C	8.0410	Adder	17.85
957612	AF2-055 E	3.4461	Adder	7.65
957641	AF2-058	0.3796	Adder	0.84
957661	AF2-060	2.0678	Adder	4.59
957671	AF2-061 O1	9.1900	Adder	20.4
958151	AF2-109 C	2.1843	Adder	4.85
958152	AF2-109 E	2.1843	Adder	4.85
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.6890	Adder	1.53
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	81.9933	Adder	182.01
958811	AF2-172 C	0.5819	Adder	1.29
958812	AF2-172 E	0.9494	Adder	2.11
959021	AF2-193 C O1	27.3961	Adder	60.81
959022	AF2-193 E O1	73.9003	Adder	164.04
959031	AF2-194 C O1	27.3961	Adder	60.81
959032	AF2-194 E O1	73.9003	Adder	164.04
959051	AF2-196 C	2.0713	Adder	4.6
959052	AF2-196 E	4.8331	Adder	10.73
959111	AF2-202 C	0.1731	Adder	0.38
959112	AF2-202 E	0.2369	Adder	0.53
959161	AF2-207 C O1	4.6291	Adder	10.28
959162	AF2-207 E O1	6.9437	Adder	15.41
959571	AF2-248 C	0.7807	Adder	1.73
959572	AF2-248 E	0.8725	Adder	1.94
959581	AF2-249 C	0.1378	Adder	0.31
959582	AF2-249 E	0.5511	Adder	1.22
959591	AF2-250 C	0.2526	Adder	0.56
959592	AF2-250 E	0.1952	Adder	0.43
960221	AF2-313 C	2.8051	Adder	6.23
960222	AF2-313 E	1.5903	Adder	3.53

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960341	AF2-325 C	0.9592	Adder	2.13
960342	AF2-325 E	1.3246	Adder	2.94
960671	AF2-358 C O1	13.7275	Adder	30.47
960672	AF2-358 E O1	9.1516	Adder	20.31
960871	AF2-378 C	0.2536	Adder	0.56
960872	AF2-378 E	0.3518	Adder	0.78
960881	AF2-379 C	0.3766	Adder	0.84
960882	AF2-379 E	0.5189	Adder	1.15
960941	AF2-385 C O1	11.0218	Adder	24.47
960942	AF2-385 E O1	6.1997	Adder	13.76
960961	AF2-387 C O1	14.9938	Adder	33.28
960962	AF2-387 E O1	7.5194	Adder	16.69
961181	AF2-409 O1	22.9205	Adder	50.88
999905	MARINGEN 2	1.0891	Adder	1.28
999906	PVILLEG 2	0.4607	Adder	0.54
NEWTON	NEWTON	5.7851	Confirmed LTF	5.7851
FARMERCITY	FARMERCITY	0.3024	Confirmed LTF	0.3024
G-007A	G-007A	25.6916	Confirmed LTF	25.6916
VFT	VFT	55.8505	Confirmed LTF	55.8505
CALDERWOOD	CALDERWOOD	2.7509	Confirmed LTF	2.7509
PRAIRIE	PRAIRIE	13.9689	Confirmed LTF	13.9689
CHEOAH	CHEOAH	2.7728	Confirmed LTF	2.7728
EDWARDS	EDWARDS	1.8767	Confirmed LTF	1.8767
TILTON	TILTON	3.3793	Confirmed LTF	3.3793
GIBSON	GIBSON	2.9358	Confirmed LTF	2.9358
BLUEG	BLUEG	9.3362	Confirmed LTF	9.3362
TRIMBLE	TRIMBLE	2.9917	Confirmed LTF	2.9917
CATAWBA	CATAWBA	1.9831	Confirmed LTF	1.9831

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
99337038	200064	PCHBTM1S	PJM	200004	CNASTONE	PJM	1	PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	single	3525.0	104.77	106.21	DC	49.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	126.2144	80/20	126.2144
200035	PCHBTM 3	125.5694	80/20	125.5694
200052	ROCKSP 1	11.1099	80/20	11.1099
200053	ROCKSP 2	11.1099	80/20	11.1099
200054	ROCKSP 3	11.2119	80/20	11.2119
200055	ROCKSP 4	11.2119	80/20	11.2119
200192	DELTA CT1	12.3143	80/20	12.3143
200193	DELTA CT2	12.3143	80/20	12.3143
200194	DELTA CT3	12.3143	80/20	12.3143
200195	DELTA ST	19.0133	80/20	19.0133
213792	MDYRN1-2	23.7984	80/20	23.7984
213793	MDYRN3-4	23.8875	80/20	23.8875
213794	MDYRN5-6	23.8168	80/20	23.8168
213795	MDYRN7-8	23.9060	80/20	23.9060
231903	GEN4	3.8566	Adder	4.54
231904	DC1 NUG	9.9921	Adder	11.76
231905	DC2 NUG	9.9921	Adder	11.76
231911	HR5	9.1624	80/20	9.1624
231912	HR6	9.1624	80/20	9.1624
231913	HR7	9.1624	80/20	9.1624
231914	HR8	13.9269	80/20	13.9269
232003	CARTANZA	22.3660	80/20	22.3660
232436	AB1-176 C	0.5283	Adder	0.62
232616	GEN FOOD	1.0995	80/20	1.0995
232901	NORTHST	3.3274	80/20	3.3274
232904	IR4	29.8981	80/20	29.8981
232922	MR3 (Deactivation : 01/06/2021)	42.7737	80/20	42.7737
913271	Y1-065 C	88.0604	80/20	88.0604
915191	DELTA2	74.8710	80/20	74.8710
918191	AA1-034 C	6.8960	80/20	6.8960
919831	AA2-069 (Suspended)	189.1269	80/20	189.1269
923282	AB1-137 C	1.4949	Adder	1.76
923322	AB1-141 C OP	4.7220	Adder	5.56
923332	AB1-142 C OP	4.7220	Adder	5.56
923921	AB2-032 C	4.7569	Adder	5.6
923951	AB2-036 C	12.2881	Adder	14.46
923961	AB2-037 C	32.1565	80/20	32.1565
924681	AB2-120 C OP	13.5221	Adder	15.91
924781	AB2-130 C OP	11.4894	Adder	13.52
924801	AB2-133 C OP	8.5595	Adder	10.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924821	AB2-135 C	10.4458	Adder	12.29
924831	AB2-136 C	8.8102	Adder	10.36
924971	AB2-153 C	2.6583	Adder	3.13
925151	AB2-172 C OP	6.7447	Adder	7.93
925191	AB2-175 1	2.1609	80/20	2.1609
925201	AB2-175 2	2.1498	80/20	2.1498
925251	AB2-179 C OP	12.7798	Adder	15.04
925261	AB2-180 C	4.9798	Adder	5.86
925271	AB2-185 C OP	4.9240	Adder	5.79
926131	AC1-091 C	3.1424	80/20	3.1424
926141	AC1-092 C	3.1424	80/20	3.1424
926151	AC1-093 C	2.9748	80/20	2.9748
926161	AC1-094 C	2.5139	80/20	2.5139
927031	AC1-190 C	12.4260	Adder	14.62
927191	AC1-213 C	1.1384	Adder	1.34
930201	AB1-056 C	26.9688	80/20	26.9688
930881	AB1-137 C	1.4949	Adder	1.76
932081	AC2-018 C1	0.3747	80/20	0.3747
932091	AC2-018 C2	0.3747	80/20	0.3747
932161	AC2-023 C	9.4249	Adder	11.09
933631	AC2-185 C	6.3686	80/20	6.3686
933641	AC2-186 C	6.7470	Adder	7.94
936451	AD2-059 C	0.0816	Adder	0.1
936611	AD2-076 C O1	6.5039	Adder	7.65
937281	AD2-167	4.8714	80/20	4.8714
938651	AE1-087 C	5.6798	Adder	6.68
938811	AE1-107 C	10.5479	Adder	12.41
938891	AE1-117 C O1	14.7707	Adder	17.38
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	14.7703	Adder	17.38
939151	AE1-145	7.1169	Adder	8.37
939621	AE1-192 C O1	16.7247	Adder	19.68
940741	AE2-061	0.6558	80/20	0.6558
941021	AE2-093 C	6.9775	Adder	8.21
941181	AE2-112 C	2.2565	Adder	2.65
942441	AE2-257 C	11.7454	Adder	13.82
943361	AF1-007 C	0.7957	80/20	0.7957
943441	AF1-015 C	2.2314	Adder	2.63
943651	AF1-036 C	2.9341	Adder	3.45
944921	AF1-157 C O1	5.3369	Adder	6.28
945661	AF1-231 C	2.7044	Adder	3.18
945781	AF1-243	1.7792	Adder	2.09
945791	AF1-244	2.8466	Adder	3.35
945931	AF1-258	1.1382	Adder	1.34
945941	AF1-259	0.2799	Adder	0.33
946041	AF1-269 (Withdrawn : 05/12/2020)	3.9090	Adder	4.6
957611	AF2-055 C	6.6009	Adder	14.65
957661	AF2-060	1.6974	Adder	3.77
957671	AF2-061 O1	7.5439	Adder	16.75
958151	AF2-109 C	1.8441	Adder	4.09
959021	AF2-193 C O1	49.8336	80/20	49.8336

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959031	AF2-194 C O1	49.8336	80/20	49.8336
959051	AF2-196 C	1.6977	Adder	3.77
959161	AF2-207 C O1	3.8012	Adder	8.44
959571	AF2-248 C	0.6411	Adder	1.42
959581	AF2-249 C	0.1131	Adder	0.25
959591	AF2-250 C	0.2074	Adder	0.46
960221	AF2-313 C	2.3549	Adder	5.23
960341	AF2-325 C	0.7906	Adder	1.75
960671	AF2-358 C O1	11.3015	Adder	25.09
960871	AF2-378 C	0.2090	Adder	0.46
960881	AF2-379 C	0.3093	Adder	0.69
960941	AF2-385 C O1	9.0505	Adder	20.09
960961	AF2-387 C O1	12.4664	Adder	27.67
961181	AF2-409 O1	18.8552	Adder	41.85
NEWTON	NEWTON	11.1426	Confirmed LTF	11.1426
FARMERCITY	FARMERCITY	0.5842	Confirmed LTF	0.5842
G-007A	G-007A	64.8787	Confirmed LTF	64.8787
VFT	VFT	165.2426	Confirmed LTF	165.2426
CALDERWOOD	CALDERWOOD	5.4546	Confirmed LTF	5.4546
PRAIRIE	PRAIRIE	27.0311	Confirmed LTF	27.0311
AC1-131	AC1-131	8.9415	LTF	8.9415
CHEOAH	CHEOAH	5.5020	Confirmed LTF	5.5020
EDWARDS	EDWARDS	3.5984	Confirmed LTF	3.5984
TILTON	TILTON	6.4814	Confirmed LTF	6.4814
GIBSON	GIBSON	5.6473	Confirmed LTF	5.6473
BLUEG	BLUEG	17.9607	Confirmed LTF	17.9607
TRIMBLE	TRIMBLE	5.7537	Confirmed LTF	5.7537
CATAWBA	CATAWBA	4.0257	Confirmed LTF	4.0257
AC1-056	AC1-056	10.3790	LTF	10.3790

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
99337054	200066	PCHBTM1N	PJM	270072	FUR RUN_500	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	single	3525.0	101.5	102.83	DC	45.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	123.7030	80/20	123.7030
200035	PCHBTM 3	123.8383	80/20	123.8383
200052	ROCKSP 1	10.7898	80/20	10.7898
200053	ROCKSP 2	10.7898	80/20	10.7898
200054	ROCKSP 3	10.8888	80/20	10.8888
200055	ROCKSP 4	10.8888	80/20	10.8888
200192	DELTA CT1	12.0325	80/20	12.0325
200193	DELTA CT2	12.0325	80/20	12.0325
200194	DELTA CT3	12.0325	80/20	12.0325
200195	DELTA ST	18.5782	80/20	18.5782
213792	MDYRN1-2	23.0993	80/20	23.0993
213793	MDYRN3-4	23.1858	80/20	23.1858
213794	MDYRN5-6	23.1205	80/20	23.1205
213795	MDYRN7-8	23.2070	80/20	23.2070
231708	CHRIST3	3.3255	Adder	3.91
231903	GEN4	3.5267	Adder	4.15
231904	DC1 NUG	9.1374	Adder	10.75
231905	DC2 NUG	9.1374	Adder	10.75
231911	HR5	8.4196	80/20	8.4196
231912	HR6	8.4196	80/20	8.4196
231913	HR7	8.4196	80/20	8.4196
231914	HR8	12.7978	80/20	12.7978
232003	CARTANZA	20.4817	80/20	20.4817
232436	AB1-176 C	0.4833	Adder	0.57
232616	GEN FOOD	1.0069	80/20	1.0069
232901	NORTHST	3.0471	80/20	3.0471
232904	IR4	27.3921	80/20	27.3921
232922	MR3 (Deactivation : 01/06/2021)	39.1700	80/20	39.1700
913271	Y1-065 C	85.5228	80/20	85.5228
915191	DELTA2	73.1576	80/20	73.1576
918191	AA1-034 C	6.7382	80/20	6.7382
919831	AA2-069 (Suspended)	173.1930	80/20	173.1930
923282	AB1-137 C	1.3696	Adder	1.61
923322	AB1-141 C OP	4.3202	Adder	5.08
923332	AB1-142 C OP	4.3202	Adder	5.08
923921	AB2-032 C	4.3522	Adder	5.12
923951	AB2-036 C	11.2516	Adder	13.24
923961	AB2-037 C	29.4927	80/20	29.4927

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C OP	12.3903	Adder	14.58
924781	AB2-130 C OP	10.5265	Adder	12.38
924801	AB2-133 C OP	7.8256	Adder	9.21
924821	AB2-135 C	9.5530	Adder	11.24
924831	AB2-136 C	8.0730	Adder	9.5
924971	AB2-153 C	2.4321	Adder	2.86
925151	AB2-172 C OP	6.1801	Adder	7.27
925191	AB2-175 1	2.1179	80/20	2.1179
925201	AB2-175 2	2.1202	80/20	2.1202
925251	AB2-179 C OP	11.6517	Adder	13.71
925261	AB2-180 C	4.5631	Adder	5.37
925271	AB2-185 C OP	4.5081	Adder	5.3
926131	AC1-091 C	2.4455	Adder	2.88
926141	AC1-092 C	2.4455	Adder	2.88
926151	AC1-093 C	2.3150	Adder	2.72
926161	AC1-094 C	1.9564	Adder	2.3
927031	AC1-190 C	11.3859	Adder	13.4
927191	AC1-213 C	1.0431	Adder	1.23
930201	AB1-056 C	24.7083	80/20	24.7083
930881	AB1-137 C	1.3696	Adder	1.61
932081	AC2-018 C1	0.3639	80/20	0.3639
932091	AC2-018 C2	0.3639	80/20	0.3639
932161	AC2-023 C	8.6363	Adder	10.16
933631	AC2-185 C	4.9561	Adder	5.83
933641	AC2-186 C	6.1790	Adder	7.27
936451	AD2-059 C	0.0742	Adder	0.09
936611	AD2-076 C O1	5.9495	Adder	7.0
937281	AD2-167	4.7310	80/20	4.7310
938651	AE1-087 C	5.2043	Adder	6.12
938811	AE1-107 C	9.6156	Adder	11.31
938891	AE1-117 C O1	13.5325	Adder	15.92
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	13.5325	Adder	15.92
939151	AE1-145	6.5212	Adder	7.67
939621	AE1-192 C O1	15.3248	Adder	18.03
940741	AE2-061	0.6369	80/20	0.6369
941021	AE2-093 C	6.3936	Adder	7.52
941181	AE2-112 C	2.0641	Adder	2.43
942441	AE2-257 C	10.7611	Adder	12.66
943361	AF1-007 C	0.7290	80/20	0.7290
943441	AF1-015 C	2.0446	Adder	2.41
943651	AF1-036 C	2.6840	Adder	3.16
944921	AF1-157 C O1	4.8896	Adder	5.75
945661	AF1-231 C	2.4781	Adder	2.92
945781	AF1-243	1.6303	Adder	1.92
945791	AF1-244	2.6085	Adder	3.07
945931	AF1-258	1.0430	Adder	1.23
945941	AF1-259	0.2561	Adder	0.3
946041	AF1-269 (Withdrawn : 05/12/2020)	3.5819	Adder	4.21
957611	AF2-055 C	6.0484	Adder	13.43
957661	AF2-060	1.5553	Adder	3.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957671	AF2-061 O1	6.9125	Adder	15.34
958151	AF2-109 C	1.6860	Adder	3.74
959021	AF2-193 C O1	45.6567	80/20	45.6567
959031	AF2-194 C O1	45.6567	80/20	45.6567
959051	AF2-196 C	1.5555	Adder	3.45
959161	AF2-207 C O1	3.4830	Adder	7.73
959571	AF2-248 C	0.5874	Adder	1.3
959581	AF2-249 C	0.1037	Adder	0.23
959591	AF2-250 C	0.1900	Adder	0.42
960221	AF2-313 C	2.1544	Adder	4.78
960341	AF2-325 C	0.7244	Adder	1.61
960671	AF2-358 C O1	10.3563	Adder	22.99
960871	AF2-378 C	0.1915	Adder	0.43
960881	AF2-379 C	0.2834	Adder	0.63
960941	AF2-385 C O1	8.2928	Adder	18.41
960961	AF2-387 C O1	11.4193	Adder	25.35
961181	AF2-409 O1	17.2803	Adder	38.36
NEWTON	NEWTON	9.0054	Confirmed LTF	9.0054
FARMERCITY	FARMERCITY	0.4707	Confirmed LTF	0.4707
G-007A	G-007A	49.0361	Confirmed LTF	49.0361
VFT	VFT	120.9182	Confirmed LTF	120.9182
CALDERWOOD	CALDERWOOD	4.2861	Confirmed LTF	4.2861
PRAIRIE	PRAIRIE	21.7463	Confirmed LTF	21.7463
CHEOAH	CHEOAH	4.3203	Confirmed LTF	4.3203
EDWARDS	EDWARDS	2.9207	Confirmed LTF	2.9207
TILTON	TILTON	5.2592	Confirmed LTF	5.2592
GIBSON	GIBSON	4.5700	Confirmed LTF	4.5700
BLUEG	BLUEG	14.5338	Confirmed LTF	14.5338
TRIMBLE	TRIMBLE	4.6573	Confirmed LTF	4.6573
CATAWBA	CATAWBA	3.0926	Confirmed LTF	3.0926

11.6.7 Index 7

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
100074083	219100	NEWFRDM	PSE&G	219704	HILLTOP_3	PSE&G	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PEACH215 \$ STBK	breaker	886.0	114.24	116.04	DC	34.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200036	SALEM-G1 (Deactivation : 01/10/2020)	21.0719	50/50	21.0719
200037	SALEM-G2 (Deactivation : 01/04/2020)	15.2127	50/50	15.2127
200039	HOPE CG1 (Deactivation : 01/10/2019)	15.5887	50/50	15.5887
200062	SALEM G3	4.0685	50/50	4.0685
219727	Z1-082 BAT	0.1757	50/50	0.1757
227928	V4-067E	0.1306	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	11.2768	Adder	13.27
228261	V4-054E	0.3183	Adder	0.37
228712	V2-041E	0.1660	Adder	0.2
228721	V2-035E	0.0669	Adder	0.08
228733	AB1-119 E	0.0886	50/50	0.0886
231903	GEN4	0.6517	Adder	0.77
231904	DC1 NUG	1.6885	Adder	1.99
231905	DC2 NUG	1.6885	Adder	1.99
232405	W1-003 E	0.2977	Adder	0.35
232407	W1-004 E	0.2977	Adder	0.35
232409	W1-005 E	0.2977	Adder	0.35
232411	W1-006 E	0.2977	Adder	0.35
232412	X1-032 E	0.2640	Adder	0.31
232418	X3-008 E	0.7985	Adder	0.94
232423	X3-066 E	0.2235	Adder	0.26
232425	Y1-079 E	0.3787	Adder	0.45
232427	Y1-080 E	0.1364	Adder	0.16
232429	Y3-058 E	0.6118	Adder	0.72
232433	Z2-076 E	0.1341	Adder	0.16
232435	Z2-077 E	0.1341	Adder	0.16
232436	AB1-176 C	0.0907	Adder	0.11
232922	MR3 (Deactivation : 01/06/2021)	7.1519	Adder	8.41
902092	W1-130E	0.3876	Adder	0.46
902432	W2-030 E	0.4704	Adder	0.55
917082	Z2-012 E	0.8200	Adder	0.96
919831	AA2-069 (Suspended)	31.6225	Adder	37.2
923153	AB1-116 E	0.0789	50/50	0.0789
923282	AB1-137 C	0.2808	Adder	0.33
923283	AB1-137 E	0.1203	Adder	0.14
923322	AB1-141 C OP	0.8078	Adder	0.95
923323	AB1-141 E OP	0.3770	Adder	0.44

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923332	AB1-142 C OP	0.8078	Adder	0.95
923532	AB1-169AC	37.4561	Adder	44.07
923603	AB1-176 E	0.1496	Adder	0.18
923921	AB2-032 C	0.8138	Adder	0.96
923922	AB2-032 E	0.3830	Adder	0.45
923951	AB2-036 C	2.1359	Adder	2.51
923952	AB2-036 E	3.4945	Adder	4.11
923961	AB2-037 C	4.8394	Adder	5.69
923962	AB2-037 E	7.9059	Adder	9.3
924051	AB2-049 C	0.4371	50/50	0.4371
924052	AB2-049 E	0.7131	50/50	0.7131
924531	AB2-102 C	15.2082	Adder	17.89
924532	AB2-102 E	0.3380	Adder	0.4
924681	AB2-120 C OP	2.5133	Adder	2.96
924682	AB2-120 E OP	4.1006	Adder	4.82
924701	AB2-122 C	0.0564	Adder	0.07
924702	AB2-122 E	0.0967	Adder	0.11
924781	AB2-130 C OP	2.1420	Adder	2.52
924782	AB2-130 E OP	3.4949	Adder	4.11
924801	AB2-133 C OP	1.4524	Adder	1.71
924802	AB2-133 E OP	1.8421	Adder	2.17
924821	AB2-135 C	1.8167	Adder	2.14
924822	AB2-135 E	2.0718	Adder	2.44
924831	AB2-136 C	1.6065	Adder	1.89
924832	AB2-136 E	1.7037	Adder	2.0
924971	AB2-153 C	0.4548	Adder	0.54
924972	AB2-153 E	0.7420	Adder	0.87
925151	AB2-172 C OP	1.2235	Adder	1.44
925152	AB2-172 E OP	1.9963	Adder	2.35
925251	AB2-179 C OP	1.9975	Adder	2.35
925252	AB2-179 E OP	0.6587	Adder	0.77
925261	AB2-180 C	0.9211	Adder	1.08
925262	AB2-180 E	0.3947	Adder	0.46
925271	AB2-185 C OP	0.8551	Adder	1.01
925272	AB2-185 E OP	0.3665	Adder	0.43
926131	AC1-091 C	0.5287	Adder	0.62
926132	AC1-091 E	0.8671	Adder	1.02
926141	AC1-092 C	0.5287	Adder	0.62
926142	AC1-092 E	0.8671	Adder	1.02
926151	AC1-093 C	0.5005	Adder	0.59
926152	AC1-093 E	0.8248	Adder	0.97
926161	AC1-094 C	0.4230	Adder	0.5
926162	AC1-094 E	0.6979	Adder	0.82
927031	AC1-190 C	2.2562	Adder	2.65
927032	AC1-190 E	0.9670	Adder	1.14
927191	AC1-213 C	0.2112	Adder	0.25
927192	AC1-213 E	0.1386	Adder	0.16
930001	AB1-001 C	0.0652	Adder	0.08
930002	AB1-001 E	0.1071	Adder	0.13
930201	AB1-056 C	4.3130	Adder	5.07
930202	AB1-056 E	12.2826	Adder	14.45
930242	AB1-063 E	-0.0455	Adder	-0.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930881	AB1-137 C	0.2808	Adder	0.33
930882	AB1-137 E	0.1203	Adder	0.14
930932	AB1-142 E OP	0.3770	Adder	0.44
932082	AC2-018 E1	1.9740	Adder	2.32
932092	AC2-018 E2	1.9740	Adder	2.32
932161	AC2-023 C	1.7398	Adder	2.05
932162	AC2-023 E	1.2671	Adder	1.49
932361	AC2-050 C O1	0.2140	Adder	0.25
932362	AC2-050 E O1	0.3491	Adder	0.41
933631	AC2-185 C	1.0716	Adder	1.26
933632	AC2-185 E	1.7484	Adder	2.06
933641	AC2-186 C	1.2718	Adder	1.5
933642	AC2-186 E	2.0751	Adder	2.44
933962	AD1-019 E	0.5944	Adder	0.7
936212	AD2-027 E	-0.5653	Adder	-0.67
936322	AD2-042 E	-0.7476	Adder	-0.88
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0643	50/50	0.0643
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0886	50/50	0.0886
936501	AD2-065 C	0.1240	50/50	0.1240
936502	AD2-065 E	0.1711	50/50	0.1711
936611	AD2-076 C O1	1.1087	Adder	1.3
936612	AD2-076 E O1	1.8089	Adder	2.13
937011	AD2-135 C	0.0845	50/50	0.0845
937012	AD2-135 E	0.1436	50/50	0.1436
938421	AE1-061 C	0.1870	Adder	0.22
938422	AE1-061 E	0.1870	Adder	0.22
938431	AE1-062 C	1.2146	50/50	1.2146
938432	AE1-062 E	1.2146	50/50	1.2146
938651	AE1-087 C	1.0303	Adder	1.21
938652	AE1-087 E	0.2576	Adder	0.3
938781	AE1-104 C O1	9.1024	Adder	10.71
938782	AE1-104 E O1	23.2883	Adder	27.4
938811	AE1-107 C	1.6398	Adder	1.93
938812	AE1-107 E	1.1690	Adder	1.38
938891	AE1-117 C O1	2.7744	Adder	3.26
938892	AE1-117 E O1	7.3872	Adder	8.69
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.7744	Adder	3.26
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	7.3872	Adder	8.69
939151	AE1-145	1.3228	Adder	1.56
939301	AE1-161 C	1.3039	Adder	1.53
939302	AE1-161 E	1.9559	Adder	2.3
939501	AE1-179 C O1	2.1295	Adder	2.51
939502	AE1-179 E O1	1.5028	Adder	1.77
939621	AE1-192 C O1	3.1081	Adder	3.66
939622	AE1-192 E O1	1.5210	Adder	1.79
939821	AE1-218 C O1	0.0603	Adder	0.07
939822	AE1-218 E O1	0.0904	Adder	0.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939831	AE1-219 C O1	0.1356	Adder	0.16
939832	AE1-219 E O1	0.1959	Adder	0.23
940001	AE1-240 C O1	1.7435	Adder	2.05
940002	AE1-240 E O1	1.2445	Adder	1.46
940361	AE2-020 C	8.9289	Adder	10.5
940362	AE2-020 E	41.8057	Adder	49.18
940371	AE2-021 C	8.9289	Adder	10.5
940372	AE2-021 E	41.8057	Adder	49.18
940381	AE2-022 C	5.2085	Adder	6.13
940382	AE2-022 E	24.3866	Adder	28.69
941021	AE2-093 C	1.2333	Adder	1.45
941022	AE2-093 E	1.9595	Adder	2.31
941181	AE2-112 C	0.3846	Adder	0.45
941182	AE2-112 E	0.6276	Adder	0.74
942101	AE2-222 C O1	6.6755	Adder	7.85
942102	AE2-222 E O1	16.7692	Adder	19.73
942381	AE2-251 C	28.2865	Adder	33.28
942382	AE2-251 E	72.3773	Adder	85.15
942441	AE2-257 C	2.2070	Adder	2.6
942442	AE2-257 E	5.8184	Adder	6.85
943071	AE2-334 C	2.1370	Adder	2.51
943072	AE2-334 E	1.1392	Adder	1.34
943361	AF1-007 C	0.1272	Adder	0.15
943362	AF1-007 E	0.3616	Adder	0.43
943441	AF1-015 C	0.3944	Adder	0.46
943442	AF1-015 E	0.5446	Adder	0.64
943651	AF1-036 C	0.5002	Adder	0.59
943652	AF1-036 E	0.6907	Adder	0.81
943732	AF1-041 E	0.1885	Adder	0.22
944921	AF1-157 C O1	0.9986	Adder	1.17
944922	AF1-157 E O1	0.6657	Adder	0.78
944951	AF1-160 C	1.2146	50/50	1.2146
944952	AF1-160 E	1.2753	50/50	1.2753
945661	AF1-231 C	0.5026	Adder	0.59
945662	AF1-231 E	0.7539	Adder	0.89
945731	AF1-238 C	3.3384	Adder	3.93
945732	AF1-238 E	5.0076	Adder	5.89
945741	AF1-239 C	0.7855	Adder	0.92
945742	AF1-239 E	1.1783	Adder	1.39
945781	AF1-243	0.3306	Adder	0.39
945791	AF1-244	0.5277	Adder	0.62
945931	AF1-258	0.2105	Adder	0.25
945941	AF1-259	0.0481	Adder	0.06
945971	AF1-262	0.0486	Adder	0.06
946041	AF1-269 (Withdrawn : 05/12/2020)	0.7143	Adder	0.84
957221	AF2-016 C	4.9903	Adder	11.08
957222	AF2-016 E	7.4854	Adder	16.62
957251	AF2-019 C	0.6079	Adder	1.35
957252	AF2-019 E	0.9118	Adder	2.02
957261	AF2-020 C	0.2162	Adder	0.48
957262	AF2-020 E	0.3244	Adder	0.72
957271	AF2-021 C	0.4657	Adder	1.03

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957272	AF2-021 E	0.6986	Adder	1.55
957281	AF2-022 C	0.7154	Adder	1.59
957282	AF2-022 E	1.0731	Adder	2.38
957311	AF2-025 C	0.3318	Adder	0.74
957312	AF2-025 E	0.4977	Adder	1.1
957321	AF2-026 C	0.4214	Adder	0.94
957322	AF2-026 E	0.6321	Adder	1.4
957611	AF2-055 C	1.2267	Adder	2.72
957612	AF2-055 E	0.5257	Adder	1.17
957641	AF2-058	0.0680	Adder	0.15
957661	AF2-060	0.3155	Adder	0.7
957671	AF2-061 O1	1.4021	Adder	3.11
958151	AF2-109 C	0.3129	Adder	0.69
958152	AF2-109 E	0.3129	Adder	0.69
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.1828	Adder	0.41
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	21.7529	Adder	48.29
958811	AF2-172 C	0.1139	Adder	0.25
958812	AF2-172 E	0.1858	Adder	0.41
958831	AF2-174 C	0.1379	Adder	0.31
958832	AF2-174 E	0.1904	Adder	0.42
959021	AF2-193 C O1	4.2239	Adder	9.38
959022	AF2-193 E O1	11.3939	Adder	25.29
959031	AF2-194 C O1	4.2239	Adder	9.38
959032	AF2-194 E O1	11.3939	Adder	25.29
959051	AF2-196 C	0.3190	Adder	0.71
959052	AF2-196 E	0.7444	Adder	1.65
959111	AF2-202 C	0.0309	Adder	0.07
959112	AF2-202 E	0.0423	Adder	0.09
959161	AF2-207 C O1	0.7058	Adder	1.57
959162	AF2-207 E O1	1.0587	Adder	2.35
959571	AF2-248 C	0.1190	Adder	0.26
959572	AF2-248 E	0.1330	Adder	0.3
959581	AF2-249 C	0.0210	Adder	0.05
959582	AF2-249 E	0.0840	Adder	0.19
959591	AF2-250 C	0.0385	Adder	0.09
959592	AF2-250 E	0.0297	Adder	0.07
960221	AF2-313 C	0.4043	Adder	0.9
960222	AF2-313 E	0.2292	Adder	0.51
960341	AF2-325 C	0.1439	Adder	0.32
960342	AF2-325 E	0.1987	Adder	0.44
960671	AF2-358 C O1	2.0670	Adder	4.59
960672	AF2-358 E O1	1.3780	Adder	3.06
960871	AF2-378 C	0.0381	Adder	0.08
960872	AF2-378 E	0.0528	Adder	0.12
960881	AF2-379 C	0.0573	Adder	0.13
960882	AF2-379 E	0.0790	Adder	0.18
960941	AF2-385 C O1	1.6804	Adder	3.73
960942	AF2-385 E O1	0.9452	Adder	2.1
960961	AF2-387 C O1	2.1845	Adder	4.85
960962	AF2-387 E O1	1.0956	Adder	2.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961181	AF2-409 O1	3.4499	Adder	7.66
999905	MARINGEN 2	0.3130	Adder	0.37
999906	PVILLEG 2	0.1328	Adder	0.16
NEWTON	NEWTON	0.4814	Confirmed LTF	0.4814
FARMERCITY	FARMERCITY	0.0251	Confirmed LTF	0.0251
G-007A	G-007A	4.3706	Confirmed LTF	4.3706
VFT	VFT	6.7725	Confirmed LTF	6.7725
CALDERWOOD	CALDERWOOD	0.2266	Confirmed LTF	0.2266
PRAIRIE	PRAIRIE	1.1623	Confirmed LTF	1.1623
CHEOAH	CHEOAH	0.2282	Confirmed LTF	0.2282
EDWARDS	EDWARDS	0.1565	Confirmed LTF	0.1565
TILTON	TILTON	0.2816	Confirmed LTF	0.2816
GIBSON	GIBSON	0.2446	Confirmed LTF	0.2446
BLUEG	BLUEG	0.7777	Confirmed LTF	0.7777
TRIMBLE	TRIMBLE	0.2493	Confirmed LTF	0.2493
CATAWBA	CATAWBA	0.1617	Confirmed LTF	0.1617

11.6.8 Index 8

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
100073960	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/ * \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	140.87	144.52	DC	64.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231505	HR4	15.8460	50/50	15.8460
231708	CHRIST3	2.9960	Adder	3.52
231900	EM5	38.4819	50/50	38.4819
231901	EM4	10.6021	50/50	10.6021
231903	GEN4	1.6776	Adder	1.97
231904	DC1 NUG	4.3464	Adder	5.11
231905	DC2 NUG	4.3464	Adder	5.11
231908	HR1	7.6165	50/50	7.6165
231909	HR2	7.6798	50/50	7.6798
231910	HR3	7.6165	50/50	7.6165
231916	EM3	5.2837	50/50	5.2837
231917	EM10	0.8786	50/50	0.8786
231919	CHRIST1	1.2713	50/50	1.2713
232405	W1-003 E	0.5706	Adder	0.67
232407	W1-004 E	0.5706	Adder	0.67
232409	W1-005 E	0.5706	Adder	0.67
232411	W1-006 E	0.5706	Adder	0.67
232412	X1-032 E	0.5087	Adder	0.6
232418	X3-008 E	1.6329	Adder	1.92
232423	X3-066 E	0.5173	Adder	0.61
232425	Y1-079 E	0.8584	Adder	1.01
232427	Y1-080 E	0.2736	Adder	0.32
232429	Y3-058 E	1.1880	Adder	1.4
232433	Z2-076 E	0.2504	Adder	0.29
232435	Z2-077 E	0.2504	Adder	0.29
232436	AB1-176 C	0.2100	Adder	0.25
232922	MR3 (Deactivation : 01/06/2021)	11.5259	Adder	13.56
917082	Z2-012 E	1.5712	Adder	1.85
919831	AA2-069 (Suspended)	50.9626	Adder	59.96
919921	AB1-000 3	-1.4309	Adder	-1.68
923282	AB1-137 C	0.5215	Adder	0.61
923283	AB1-137 E	0.2235	Adder	0.26
923322	AB1-141 C OP	1.8872	Adder	2.22
923323	AB1-141 E OP	0.8807	Adder	1.04
923332	AB1-142 C OP	1.8872	Adder	2.22
923603	AB1-176 E	0.3463	Adder	0.41
923921	AB2-032 C	1.9012	Adder	2.24
923922	AB2-032 E	0.8947	Adder	1.05
923951	AB2-036 C	4.8387	Adder	5.69
923952	AB2-036 E	7.9165	Adder	9.31
923961	AB2-037 C	10.6457	Adder	12.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923962	AB2-037 E	17.3912	Adder	20.46
924681	AB2-120 C OP	4.8140	Adder	5.66
924682	AB2-120 E OP	7.8544	Adder	9.24
924781	AB2-130 C OP	4.0628	Adder	4.78
924782	AB2-130 E OP	6.6288	Adder	7.8
924801	AB2-133 C OP	3.4368	Adder	4.04
924802	AB2-133 E OP	4.3588	Adder	5.13
924821	AB2-135 C	4.0578	Adder	4.77
924822	AB2-135 E	4.6277	Adder	5.44
924831	AB2-136 C	3.2413	Adder	3.81
924832	AB2-136 E	3.4373	Adder	4.04
924971	AB2-153 C	1.0624	Adder	1.25
924972	AB2-153 E	1.7334	Adder	2.04
925151	AB2-172 C OP	2.5020	Adder	2.94
925152	AB2-172 E OP	4.0821	Adder	4.8
925251	AB2-179 C OP	5.5665	Adder	6.55
925252	AB2-179 E OP	1.8358	Adder	2.16
925261	AB2-180 C	1.7883	Adder	2.1
925262	AB2-180 E	0.7664	Adder	0.9
925271	AB2-185 C OP	1.9383	Adder	2.28
925272	AB2-185 E OP	0.8307	Adder	0.98
926131	AC1-091 C	0.8330	Adder	0.98
926132	AC1-091 E	1.3662	Adder	1.61
926141	AC1-092 C	0.8330	Adder	0.98
926142	AC1-092 E	1.3662	Adder	1.61
926151	AC1-093 C	0.7886	Adder	0.93
926152	AC1-093 E	1.2995	Adder	1.53
926161	AC1-094 C	0.6664	Adder	0.78
926162	AC1-094 E	1.0996	Adder	1.29
927031	AC1-190 C	4.6026	Adder	5.41
927032	AC1-190 E	1.9726	Adder	2.32
927191	AC1-213 C	0.4067	Adder	0.48
927192	AC1-213 E	0.2669	Adder	0.31
930201	AB1-056 C	7.9734	Adder	9.38
930202	AB1-056 E	22.7069	Adder	26.71
930881	AB1-137 C	0.5215	Adder	0.61
930882	AB1-137 E	0.2235	Adder	0.26
930932	AB1-142 E OP	0.8807	Adder	1.04
932161	AC2-023 C	3.3968	Adder	4.0
932162	AC2-023 E	2.4739	Adder	2.91
933631	AC2-185 C	1.6883	Adder	1.99
933632	AC2-185 E	2.7545	Adder	3.24
933641	AC2-186 C	2.3275	Adder	2.74
933642	AC2-186 E	3.7976	Adder	4.47
936451	AD2-059 C	0.0482	Adder	0.06
936452	AD2-059 E	0.1511	Adder	0.18
936611	AD2-076 C O1	2.6084	Adder	3.07
936612	AD2-076 E O1	4.2559	Adder	5.01
938651	AE1-087 C	2.1069	Adder	2.48
938652	AE1-087 E	0.5267	Adder	0.62
938811	AE1-107 C	4.7343	Adder	5.57
938812	AE1-107 E	3.3751	Adder	3.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938891	AE1-117 C O1	5.1530	Adder	6.06
938892	AE1-117 E O1	13.7206	Adder	16.14
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	5.1537	Adder	6.06
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	13.7224	Adder	16.14
939151	AE1-145	2.5335	Adder	2.98
939621	AE1-192 C O1	5.9553	Adder	7.01
939622	AE1-192 E O1	2.9143	Adder	3.43
940271	AE2-010	-0.4740	Adder	-0.56
941021	AE2-093 C	2.6985	Adder	3.17
941022	AE2-093 E	4.2874	Adder	5.04
941181	AE2-112 C	0.9050	Adder	1.06
941182	AE2-112 E	1.4765	Adder	1.74
942441	AE2-257 C	4.0953	Adder	4.82
942442	AE2-257 E	10.7967	Adder	12.7
943361	AF1-007 C	0.2352	Adder	0.28
943362	AF1-007 E	0.6686	Adder	0.79
943441	AF1-015 C	0.8630	Adder	1.02
943442	AF1-015 E	1.1917	Adder	1.4
943651	AF1-036 C	1.1767	Adder	1.38
943652	AF1-036 E	1.6250	Adder	1.91
944921	AF1-157 C O1	1.8751	Adder	2.21
944922	AF1-157 E O1	1.2501	Adder	1.47
945661	AF1-231 C	0.9631	Adder	1.13
945662	AF1-231 E	1.4446	Adder	1.7
945781	AF1-243	0.6335	Adder	0.75
945791	AF1-244	1.0182	Adder	1.2
945931	AF1-258	0.4088	Adder	0.48
945941	AF1-259	0.1113	Adder	0.13
946041	AF1-269 (Withdrawn : 05/12/2020)	1.4332	Adder	1.69
957443	AF2-038 BAT	1.8778	Merchant Transmission	1.8778
957611	AF2-055 C	2.3505	Adder	5.22
957612	AF2-055 E	1.0073	Adder	2.24
957661	AF2-060	0.6042	Adder	1.34
957671	AF2-061 O1	2.6855	Adder	5.96
958151	AF2-109 C	0.7404	Adder	1.64
958152	AF2-109 E	0.7404	Adder	1.64
959021	AF2-193 C O1	7.8088	Adder	17.33
959022	AF2-193 E O1	21.0640	Adder	46.76
959031	AF2-194 C O1	7.8088	Adder	17.33
959032	AF2-194 E O1	21.0640	Adder	46.76
959051	AF2-196 C	0.5920	Adder	1.31
959052	AF2-196 E	1.3812	Adder	3.07
959161	AF2-207 C O1	1.3555	Adder	3.01
959162	AF2-207 E O1	2.0333	Adder	4.51
959571	AF2-248 C	0.2288	Adder	0.51
959572	AF2-248 E	0.2557	Adder	0.57
959581	AF2-249 C	0.0404	Adder	0.09
959582	AF2-249 E	0.1615	Adder	0.36

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0740	Adder	0.16
959592	AF2-250 E	0.0572	Adder	0.13
960221	AF2-313 C	0.9361	Adder	2.08
960222	AF2-313 E	0.5307	Adder	1.18
960341	AF2-325 C	0.2917	Adder	0.65
960342	AF2-325 E	0.4028	Adder	0.89
960671	AF2-358 C O1	4.1383	Adder	9.19
960672	AF2-358 E O1	2.7589	Adder	6.12
960871	AF2-378 C	0.0770	Adder	0.17
960872	AF2-378 E	0.1068	Adder	0.24
960881	AF2-379 C	0.1107	Adder	0.25
960882	AF2-379 E	0.1526	Adder	0.34
960941	AF2-385 C O1	3.2274	Adder	7.16
960942	AF2-385 E O1	1.8154	Adder	4.03
960961	AF2-387 C O1	4.8680	Adder	10.81
960962	AF2-387 E O1	2.4413	Adder	5.42
961181	AF2-409 O1	6.9116	Adder	15.34
NEWTON	NEWTON	0.0322	Confirmed LTF	0.0322
CPL	CPL	0.0377	Confirmed LTF	0.0377
FARMERCITY	FARMERCITY	0.0015	Confirmed LTF	0.0015
NY	NY	0.9368	Confirmed LTF	0.9368
PRAIRIE	PRAIRIE	0.0646	Confirmed LTF	0.0646
O-066	O-066	14.6093	Confirmed LTF	14.6093
EDWARDS	EDWARDS	0.0122	Confirmed LTF	0.0122
CBM-S2	CBM-S2	0.2139	Confirmed LTF	0.2139
TILTON	TILTON	0.0214	Confirmed LTF	0.0214
G-007	G-007	2.2142	Confirmed LTF	2.2142
MADISON	MADISON	0.0181	Confirmed LTF	0.0181
GIBSON	GIBSON	0.0169	Confirmed LTF	0.0169
BLUEG	BLUEG	0.0538	Confirmed LTF	0.0538
TRIMBLE	TRIMBLE	0.0178	Confirmed LTF	0.0178

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 LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
100073973	231001	EDGEM R 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P4_LINWO225/ * \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	136.49	139.79	DC	58.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231505	HR4	15.8233	50/50	15.8233
231708	CHRIST3	2.7911	50/50	2.7911
231900	EM5	38.4268	50/50	38.4268
231901	EM4	8.3186	50/50	8.3186
231903	GEN4	1.4363	Adder	1.69
231904	DC1 NUG	3.7212	Adder	4.38
231905	DC2 NUG	3.7212	Adder	4.38
231908	HR1	5.9760	50/50	5.9760
231910	HR3	5.9760	50/50	5.9760
231918	WEST 1	0.6504	50/50	0.6504
231919	CHRIST1	1.0067	50/50	1.0067
231920	CHRIST2	1.0023	50/50	1.0023
232405	W1-003 E	0.5171	Adder	0.61
232407	W1-004 E	0.5171	Adder	0.61
232409	W1-005 E	0.5171	Adder	0.61
232411	W1-006 E	0.5171	Adder	0.61
232412	X1-032 E	0.4610	Adder	0.54
232416	X2-083	0.1070	50/50	0.1070
232418	X3-008 E	1.4773	Adder	1.74
232423	X3-066 E	0.4615	Adder	0.54
232425	Y1-079 E	0.7700	Adder	0.91
232427	Y1-080 E	0.2478	Adder	0.29
232429	Y3-058 E	1.0763	Adder	1.27
232433	Z2-076 E	0.2269	Adder	0.27
232435	Z2-077 E	0.2269	Adder	0.27
232436	AB1-176 C	0.1873	Adder	0.22
232922	MR3 (Deactivation : 01/06/2021)	10.4343	Adder	12.28
917082	Z2-012 E	1.4240	Adder	1.68
919831	AA2-069 (Suspended)	46.1362	Adder	54.28
919921	AB1-000 3	-1.2968	Adder	-1.53
923282	AB1-137 C	0.4725	Adder	0.56
923283	AB1-137 E	0.2025	Adder	0.24
923322	AB1-141 C OP	1.6835	Adder	1.98
923323	AB1-141 E OP	0.7856	Adder	0.92
923332	AB1-142 C OP	1.6835	Adder	1.98
923603	AB1-176 E	0.3089	Adder	0.36
923921	AB2-032 C	1.6960	Adder	2.0
923922	AB2-032 E	0.7981	Adder	0.94
923951	AB2-036 C	4.3456	Adder	5.11
923952	AB2-036 E	7.1099	Adder	8.36
923961	AB2-037 C	9.6867	Adder	11.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923962	AB2-037 E	15.8245	Adder	18.62
924681	AB2-120 C OP	4.3628	Adder	5.13
924682	AB2-120 E OP	7.1182	Adder	8.37
924781	AB2-130 C OP	3.6795	Adder	4.33
924782	AB2-130 E OP	6.0034	Adder	7.06
924801	AB2-133 C OP	3.0487	Adder	3.59
924802	AB2-133 E OP	3.8666	Adder	4.55
924821	AB2-135 C	3.6102	Adder	4.25
924822	AB2-135 E	4.1173	Adder	4.84
924831	AB2-136 C	2.9343	Adder	3.45
924832	AB2-136 E	3.1118	Adder	3.66
924971	AB2-153 C	0.9477	Adder	1.11
924972	AB2-153 E	1.5463	Adder	1.82
925151	AB2-172 C OP	2.2636	Adder	2.66
925152	AB2-172 E OP	3.6932	Adder	4.34
925251	AB2-179 C OP	4.8359	Adder	5.69
925252	AB2-179 E OP	1.5948	Adder	1.88
925261	AB2-180 C	1.6203	Adder	1.91
925262	AB2-180 E	0.6944	Adder	0.82
925271	AB2-185 C OP	1.7387	Adder	2.05
925272	AB2-185 E OP	0.7452	Adder	0.88
926131	AC1-091 C	0.7529	Adder	0.89
926132	AC1-091 E	1.2347	Adder	1.45
926141	AC1-092 C	0.7529	Adder	0.89
926142	AC1-092 E	1.2347	Adder	1.45
926151	AC1-093 C	0.7127	Adder	0.84
926152	AC1-093 E	1.1745	Adder	1.38
926161	AC1-094 C	0.6023	Adder	0.71
926162	AC1-094 E	0.9938	Adder	1.17
927031	AC1-190 C	4.1647	Adder	4.9
927032	AC1-190 E	1.7849	Adder	2.1
927191	AC1-213 C	0.3686	Adder	0.43
927192	AC1-213 E	0.2419	Adder	0.28
930201	AB1-056 C	7.2240	Adder	8.5
930202	AB1-056 E	20.5728	Adder	24.2
930881	AB1-137 C	0.4725	Adder	0.56
930882	AB1-137 E	0.2025	Adder	0.24
930932	AB1-142 E OP	0.7856	Adder	0.92
932161	AC2-023 C	3.0776	Adder	3.62
932162	AC2-023 E	2.2414	Adder	2.64
933631	AC2-185 C	1.5259	Adder	1.8
933632	AC2-185 E	2.4895	Adder	2.93
933641	AC2-186 C	2.1021	Adder	2.47
933642	AC2-186 E	3.4297	Adder	4.03
936451	AD2-059 C	0.0415	Adder	0.05
936452	AD2-059 E	0.1303	Adder	0.15
936611	AD2-076 C O1	2.3237	Adder	2.73
936612	AD2-076 E O1	3.7913	Adder	4.46
938651	AE1-087 C	1.9062	Adder	2.24
938652	AE1-087 E	0.4765	Adder	0.56
938811	AE1-107 C	4.0576	Adder	4.77
938812	AE1-107 E	2.8927	Adder	3.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938891	AE1-117 C O1	4.6686	Adder	5.49
938892	AE1-117 E O1	12.4310	Adder	14.62
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	4.6694	Adder	5.49
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	12.4329	Adder	14.63
939151	AE1-145	2.2960	Adder	2.7
939621	AE1-192 C O1	5.3972	Adder	6.35
939622	AE1-192 E O1	2.6412	Adder	3.11
940271	AE2-010	-0.4298	Adder	-0.51
941021	AE2-093 C	2.4382	Adder	2.87
941022	AE2-093 E	3.8740	Adder	4.56
941181	AE2-112 C	0.8062	Adder	0.95
941182	AE2-112 E	1.3154	Adder	1.55
942441	AE2-257 C	3.7105	Adder	4.37
942442	AE2-257 E	9.7821	Adder	11.51
943361	AF1-007 C	0.2131	Adder	0.25
943362	AF1-007 E	0.6057	Adder	0.71
943441	AF1-015 C	0.7797	Adder	0.92
943442	AF1-015 E	1.0768	Adder	1.27
943651	AF1-036 C	1.0483	Adder	1.23
943652	AF1-036 E	1.4476	Adder	1.7
944921	AF1-157 C O1	1.6986	Adder	2.0
944922	AF1-157 E O1	1.1324	Adder	1.33
945661	AF1-231 C	0.8728	Adder	1.03
945662	AF1-231 E	1.3092	Adder	1.54
945781	AF1-243	0.5742	Adder	0.68
945791	AF1-244	0.9228	Adder	1.09
945931	AF1-258	0.3704	Adder	0.44
945941	AF1-259	0.0993	Adder	0.12
946041	AF1-269 (Withdrawn : 05/12/2020)	1.2978	Adder	1.53
957443	AF2-038 BAT	1.7026	Merchant Transmission	1.7026
957611	AF2-055 C	2.1302	Adder	4.73
957612	AF2-055 E	0.9129	Adder	2.03
957661	AF2-060	0.5476	Adder	1.22
957671	AF2-061 O1	2.4338	Adder	5.4
958151	AF2-109 C	0.6568	Adder	1.46
958152	AF2-109 E	0.6568	Adder	1.46
959021	AF2-193 C O1	7.0748	Adder	15.7
959022	AF2-193 E O1	19.0842	Adder	42.36
959031	AF2-194 C O1	7.0748	Adder	15.7
959032	AF2-194 E O1	19.0842	Adder	42.36
959051	AF2-196 C	0.5363	Adder	1.19
959052	AF2-196 E	1.2514	Adder	2.78
959161	AF2-207 C O1	1.2282	Adder	2.73
959162	AF2-207 E O1	1.8423	Adder	4.09
959571	AF2-248 C	0.2073	Adder	0.46
959572	AF2-248 E	0.2317	Adder	0.51
959581	AF2-249 C	0.0366	Adder	0.08
959582	AF2-249 E	0.1463	Adder	0.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0671	Adder	0.15
959592	AF2-250 E	0.0518	Adder	0.11
960221	AF2-313 C	0.8351	Adder	1.85
960222	AF2-313 E	0.4734	Adder	1.05
960341	AF2-325 C	0.2640	Adder	0.59
960342	AF2-325 E	0.3646	Adder	0.81
960671	AF2-358 C O1	3.7480	Adder	8.32
960672	AF2-358 E O1	2.4987	Adder	5.55
960871	AF2-378 C	0.0697	Adder	0.15
960872	AF2-378 E	0.0967	Adder	0.21
960881	AF2-379 C	0.1004	Adder	0.22
960882	AF2-379 E	0.1383	Adder	0.31
960941	AF2-385 C O1	2.9242	Adder	6.49
960942	AF2-385 E O1	1.6449	Adder	3.65
960961	AF2-387 C O1	4.3859	Adder	9.74
960962	AF2-387 E O1	2.1995	Adder	4.88
961181	AF2-409 O1	6.2674	Adder	13.91
NEWTON	NEWTON	0.0183	Confirmed LTF	0.0183
CPL	CPL	0.0404	Confirmed LTF	0.0404
FARMERCITY	FARMERCITY	0.0008	Confirmed LTF	0.0008
NY	NY	0.8433	Confirmed LTF	0.8433
TVA	TVA	0.0056	Confirmed LTF	0.0056
PRAIRIE	PRAIRIE	0.0336	Confirmed LTF	0.0336
O-066	O-066	13.1779	Confirmed LTF	13.1779
EDWARDS	EDWARDS	0.0077	Confirmed LTF	0.0077
CBM-S2	CBM-S2	0.2485	Confirmed LTF	0.2485
TILTON	TILTON	0.0139	Confirmed LTF	0.0139
G-007	G-007	1.9968	Confirmed LTF	1.9968
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
GIBSON	GIBSON	0.0104	Confirmed LTF	0.0104
BLUEG	BLUEG	0.0330	Confirmed LTF	0.0330
TRIMBLE	TRIMBLE	0.0106	Confirmed LTF	0.0106

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
100074325	231001	EDGEMR 5	DP&L	213750	LINWOOD	PECO	1	DPL_P1_2_CKT 23015	single	804.0	107.75	108.65	DC	15.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.6482	80/20	0.6482
231505	HR4	15.7543	80/20	15.7543
231708	CHRIST3	2.8110	80/20	2.8110
231900	EM5	38.2592	80/20	38.2592
231901	EM4	8.3808	80/20	8.3808
231902	DC CT7	1.5172	80/20	1.5172
231903	GEN4	1.4428	Adder	1.7
231904	DC1 NUG	4.3978	80/20	4.3978
231905	DC2 NUG	4.3978	80/20	4.3978
231906	DC3 NUG	1.9165	80/20	1.9165
231907	DC10	0.4738	80/20	0.4738
231908	HR1	6.0207	80/20	6.0207
231909	HR2	4.8227	80/20	4.8227
231910	HR3	6.0207	80/20	6.0207
231915	DC CT6	1.4640	80/20	1.4640
231916	EM3	3.3180	80/20	3.3180
231917	EM10	0.5517	80/20	0.5517
231918	WEST 1	0.6594	80/20	0.6594
231919	CHRIST1	1.0139	80/20	1.0139
231920	CHRIST2	1.0094	80/20	1.0094
232416	X2-083	0.1073	80/20	0.1073
232436	AB1-176 C	0.1879	Adder	0.22
232922	MR3 (Deactivation : 01/06/2021)	10.4638	Adder	12.31
919831	AA2-069 (Suspended)	46.2665	Adder	54.43
919901	AB1-000 1	-1.2927	Adder	-1.52
919911	AB1-000 2	-1.2927	Adder	-1.52
919921	AB1-000 3	-1.2927	Adder	-1.52
923282	AB1-137 C	0.4736	Adder	0.56
923322	AB1-141 C OP	1.6882	Adder	1.99
923332	AB1-142 C OP	1.6882	Adder	1.99
923921	AB2-032 C	1.7007	Adder	2.0
923951	AB2-036 C	4.3566	Adder	5.13
923961	AB2-037 C	9.7049	Adder	11.42
924681	AB2-120 C OP	4.3731	Adder	5.14
924781	AB2-130 C OP	3.6886	Adder	4.34
924801	AB2-133 C OP	3.0579	Adder	3.6
924821	AB2-135 C	3.6211	Adder	4.26
924831	AB2-136 C	2.9411	Adder	3.46
924971	AB2-153 C	0.9504	Adder	1.12
925151	AB2-172 C OP	2.2688	Adder	2.67
925251	AB2-179 C OP	4.8547	Adder	5.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925261	AB2-180 C	1.6241	Adder	1.91
925271	AB2-185 C OP	1.7431	Adder	2.05
926131	AC1-091 C	0.7551	Adder	0.89
926141	AC1-092 C	0.7551	Adder	0.89
926151	AC1-093 C	0.7148	Adder	0.84
926161	AC1-094 C	0.6041	Adder	0.71
927031	AC1-190 C	4.1745	Adder	4.91
927191	AC1-213 C	0.3694	Adder	0.43
930201	AB1-056 C	7.2416	Adder	8.52
930881	AB1-137 C	0.4736	Adder	0.56
932161	AC2-023 C	3.0846	Adder	3.63
933631	AC2-185 C	1.5304	Adder	1.8
933641	AC2-186 C	2.1076	Adder	2.48
936451	AD2-059 C	0.0490	80/20	0.0490
936611	AD2-076 C O1	2.3304	Adder	2.74
938651	AE1-087 C	1.9105	Adder	2.25
938811	AE1-107 C	4.7951	80/20	4.7951
938891	AE1-117 C O1	4.6799	Adder	5.51
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	4.6806	Adder	5.51
939151	AE1-145	2.3015	Adder	2.71
939621	AE1-192 C O1	5.4100	Adder	6.36
940271	AE2-010	-0.4280	Adder	-0.5
941021	AE2-093 C	2.4436	Adder	2.87
941181	AE2-112 C	0.8085	Adder	0.95
942441	AE2-257 C	3.7194	Adder	4.38
943361	AF1-007 C	0.2136	Adder	0.25
943441	AF1-015 C	0.7815	Adder	0.92
943651	AF1-036 C	1.0513	Adder	1.24
944921	AF1-157 C O1	1.7026	Adder	2.0
945661	AF1-231 C	0.8749	Adder	1.03
945781	AF1-243	0.5755	Adder	0.68
945791	AF1-244	0.9250	Adder	1.09
945931	AF1-258	0.3712	Adder	0.44
945941	AF1-259	0.0995	Adder	0.12
946041	AF1-269 (Withdrawn : 05/12/2020)	1.3008	Adder	1.53
957611	AF2-055 C	2.1352	Adder	4.74
957661	AF2-060	0.5489	Adder	1.22
957671	AF2-061 O1	2.4395	Adder	5.42
958151	AF2-109 C	0.6588	Adder	1.46
959021	AF2-193 C O1	7.0920	Adder	15.74
959031	AF2-194 C O1	7.0920	Adder	15.74
959051	AF2-196 C	0.5376	Adder	1.19
959161	AF2-207 C O1	1.2311	Adder	2.73
959571	AF2-248 C	0.2078	Adder	0.46
959581	AF2-249 C	0.0367	Adder	0.08
959591	AF2-250 C	0.0672	Adder	0.15
960221	AF2-313 C	0.8374	Adder	1.86
960341	AF2-325 C	0.2646	Adder	0.59
960671	AF2-358 C O1	3.7564	Adder	8.34
960871	AF2-378 C	0.0698	Adder	0.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.1006	Adder	0.22
960941	AF2-385 C O1	2.9311	Adder	6.51
960961	AF2-387 C O1	4.3961	Adder	9.76
961181	AF2-409 O1	6.2813	Adder	13.94
WEC	WEC	0.0079	Confirmed LTF	0.0079
LGEE	LGEE	0.0171	Confirmed LTF	0.0171
CPL	CPL	0.0721	Confirmed LTF	0.0721
CBM-W2	CBM-W2	0.3358	Confirmed LTF	0.3358
NY	NY	0.8162	Confirmed LTF	0.8162
CBM-W1	CBM-W1	0.2502	Confirmed LTF	0.2502
TVA	TVA	0.0728	Confirmed LTF	0.0728
CBM-S2	CBM-S2	0.5260	Confirmed LTF	0.5260
CBM-S1	CBM-S1	0.4090	Confirmed LTF	0.4090
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
MEC	MEC	0.0493	Confirmed LTF	0.0493

11.6.11 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
101764710	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PEACH215 \$ STBK	breaker	378.0	103.88	108.78	DC	41.13

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200062	SALEM G3	1.9750	Adder	2.32
231708	CHRIST3	0.9517	Adder	1.12
231902	DC CT7	1.0848	50/50	1.0848
231903	GEN4	1.0316	Adder	1.21
231904	DC1 NUG	3.1444	50/50	3.1444
231905	DC2 NUG	3.1444	50/50	3.1444
231906	DC3 NUG	1.3702	50/50	1.3702
231907	DC10	0.3388	50/50	0.3388
231915	DC CT6	1.0467	50/50	1.0467
232405	W1-003 E	0.3638	Adder	0.43
232407	W1-004 E	0.3638	Adder	0.43
232409	W1-005 E	0.3638	Adder	0.43
232411	W1-006 E	0.3638	Adder	0.43
232412	X1-032 E	0.3240	Adder	0.38
232416	X2-083	0.0546	50/50	0.0546
232418	X3-008 E	1.0574	Adder	1.24
232422	X3-066 FULL	0.0483	50/50	0.0483
232423	X3-066 E	0.4572	50/50	0.4572
232424	Y1-079 C	0.0757	50/50	0.0757
232425	Y1-079 E	0.7163	50/50	0.7163
232427	Y1-080 E	0.1755	Adder	0.21
232429	Y3-058 E	0.7590	Adder	0.89
232433	Z2-076 E	0.1606	Adder	0.19
232435	Z2-077 E	0.1606	Adder	0.19
232436	AB1-176 C	0.1856	50/50	0.1856
232922	MR3 (Deactivation : 01/06/2021)	7.5646	Adder	8.9
917082	Z2-012 E	1.0019	Adder	1.18
919831	AA2-069 (Suspended)	33.4473	Adder	39.35
923282	AB1-137 C	0.3347	Adder	0.39
923283	AB1-137 E	0.1434	Adder	0.17
923322	AB1-141 C OP	1.6670	50/50	1.6670
923323	AB1-141 E OP	0.7779	50/50	0.7779
923332	AB1-142 C OP	1.6670	50/50	1.6670
923603	AB1-176 E	0.3060	50/50	0.3060
923921	AB2-032 C	1.6793	50/50	1.6793
923922	AB2-032 E	0.7903	50/50	0.7903
923951	AB2-036 C	3.9842	50/50	3.9842
923952	AB2-036 E	6.5185	50/50	6.5185
923961	AB2-037 C	6.3826	Adder	7.51
923962	AB2-037 E	10.4268	Adder	12.27
924681	AB2-120 C OP	3.0698	Adder	3.61

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924682	AB2-120 E OP	5.0086	Adder	5.89
924781	AB2-130 C OP	2.6140	Adder	3.08
924782	AB2-130 E OP	4.2649	Adder	5.02
924801	AB2-133 C OP	3.2088	50/50	3.2088
924802	AB2-133 E OP	4.0697	50/50	4.0697
924821	AB2-135 C	3.6915	50/50	3.6915
924822	AB2-135 E	4.2100	50/50	4.2100
924831	AB2-136 C	2.0852	Adder	2.45
924832	AB2-136 E	2.2114	Adder	2.6
924971	AB2-153 C	0.9384	50/50	0.9384
924972	AB2-153 E	1.5312	50/50	1.5312
925151	AB2-172 C OP	1.6202	Adder	1.91
925152	AB2-172 E OP	2.6434	Adder	3.11
925251	AB2-179 C OP	6.1901	50/50	6.1901
925252	AB2-179 E OP	2.0414	50/50	2.0414
925261	AB2-180 C	1.1425	Adder	1.34
925262	AB2-180 E	0.4897	Adder	0.58
925271	AB2-185 C OP	1.6174	50/50	1.6174
925272	AB2-185 E OP	0.6932	50/50	0.6932
926131	AC1-091 C	0.5588	Adder	0.66
926132	AC1-091 E	0.9165	Adder	1.08
926141	AC1-092 C	0.5588	Adder	0.66
926142	AC1-092 E	0.9165	Adder	1.08
926151	AC1-093 C	0.5290	Adder	0.62
926152	AC1-093 E	0.8718	Adder	1.03
926161	AC1-094 C	0.4471	Adder	0.53
926162	AC1-094 E	0.7377	Adder	0.87
927031	AC1-190 C	2.9774	Adder	3.5
927032	AC1-190 E	1.2760	Adder	1.5
927191	AC1-213 C	0.2598	Adder	0.31
927192	AC1-213 E	0.1705	Adder	0.2
930201	AB1-056 C	5.1165	Adder	6.02
930202	AB1-056 E	14.5710	Adder	17.14
930881	AB1-137 C	0.3347	Adder	0.39
930882	AB1-137 E	0.1434	Adder	0.17
930932	AB1-142 E OP	0.7779	50/50	0.7779
932082	AC2-018 E1	1.6551	Adder	1.95
932092	AC2-018 E2	1.6551	Adder	1.95
932161	AC2-023 C	2.1703	Adder	2.55
932162	AC2-023 E	1.5806	Adder	1.86
933631	AC2-185 C	1.1326	Adder	1.33
933632	AC2-185 E	1.8479	Adder	2.17
933641	AC2-186 C	1.5533	Adder	1.83
933642	AC2-186 E	2.5343	Adder	2.98
936451	AD2-059 C	0.0324	50/50	0.0324
936452	AD2-059 E	0.1015	50/50	0.1015
936611	AD2-076 C O1	2.3355	50/50	2.3355
936612	AD2-076 E O1	3.8106	50/50	3.8106
938651	AE1-087 C	1.3644	Adder	1.61
938652	AE1-087 E	0.3411	Adder	0.4
938811	AE1-107 C	4.9535	50/50	4.9535
938812	AE1-107 E	3.5314	50/50	3.5314

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938891	AE1-117 C O1	3.3070	Adder	3.89
938892	AE1-117 E O1	8.8055	Adder	10.36
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	3.3074	Adder	3.89
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	8.8064	Adder	10.36
939151	AE1-145	1.6157	Adder	1.9
939621	AE1-192 C O1	3.7976	Adder	4.47
939622	AE1-192 E O1	1.8584	Adder	2.19
941021	AE2-093 C	1.7664	Adder	2.08
941022	AE2-093 E	2.8066	Adder	3.3
941181	AE2-112 C	0.8103	50/50	0.8103
941182	AE2-112 E	1.3220	50/50	1.3220
942441	AE2-257 C	2.6286	Adder	3.09
942442	AE2-257 E	6.9299	Adder	8.15
943361	AF1-007 C	0.1510	Adder	0.18
943362	AF1-007 E	0.4290	Adder	0.5
943441	AF1-015 C	0.5649	Adder	0.66
943442	AF1-015 E	0.7801	Adder	0.92
943651	AF1-036 C	1.0536	50/50	1.0536
943652	AF1-036 E	1.4550	50/50	1.4550
944921	AF1-157 C O1	1.2056	Adder	1.42
944922	AF1-157 E O1	0.8038	Adder	0.95
945661	AF1-231 C	0.6141	Adder	0.72
945662	AF1-231 E	0.9211	Adder	1.08
945781	AF1-243	0.4040	Adder	0.48
945791	AF1-244	0.6483	Adder	0.76
945931	AF1-258	0.2611	Adder	0.31
945941	AF1-259	0.0983	50/50	0.0983
946041	AF1-269 (Withdrawn : 05/12/2020)	0.9195	Adder	1.08
957611	AF2-055 C	1.4989	Adder	3.33
957612	AF2-055 E	0.6424	Adder	1.43
957661	AF2-060	0.3853	Adder	0.86
957671	AF2-061 O1	1.7126	Adder	3.8
958151	AF2-109 C	1.3044	50/50	1.3044
958152	AF2-109 E	1.3044	50/50	1.3044
959021	AF2-193 C O1	5.0109	Adder	11.12
959022	AF2-193 E O1	13.5167	Adder	30.0
959031	AF2-194 C O1	5.0109	Adder	11.12
959032	AF2-194 E O1	13.5167	Adder	30.0
959051	AF2-196 C	0.3799	Adder	0.84
959052	AF2-196 E	0.8865	Adder	1.97
959161	AF2-207 C O1	0.8668	Adder	1.92
959162	AF2-207 E O1	1.3002	Adder	2.89
959173	AF2-208 BAT	21.0864	50/50	21.0864
959571	AF2-248 C	0.1462	Adder	0.32
959572	AF2-248 E	0.1635	Adder	0.36
959581	AF2-249 C	0.0258	Adder	0.06
959582	AF2-249 E	0.1032	Adder	0.23
959591	AF2-250 C	0.0473	Adder	0.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959592	AF2-250 E	0.0366	Adder	0.08
960221	AF2-313 C	1.5608	50/50	1.5608
960222	AF2-313 E	0.8849	50/50	0.8849
960341	AF2-325 C	0.1881	Adder	0.42
960342	AF2-325 E	0.2598	Adder	0.58
960671	AF2-358 C O1	2.6522	Adder	5.89
960672	AF2-358 E O1	1.7681	Adder	3.92
960871	AF2-378 C	0.0496	Adder	0.11
960872	AF2-378 E	0.0688	Adder	0.15
960881	AF2-379 C	0.0705	Adder	0.16
960882	AF2-379 E	0.0972	Adder	0.22
960941	AF2-385 C O1	2.0638	Adder	4.58
960942	AF2-385 E O1	1.1609	Adder	2.58
960961	AF2-387 C O1	3.2920	Adder	7.31
960962	AF2-387 E O1	1.6509	Adder	3.66
961181	AF2-409 O1	4.3635	Adder	9.69
NEWTON	NEWTON	0.7006	Confirmed LTF	0.7006
FARMERCITY	FARMERCITY	0.0367	Confirmed LTF	0.0367
G-007A	G-007A	4.2124	Confirmed LTF	4.2124
VFT	VFT	9.6686	Confirmed LTF	9.6686
CALDERWOOD	CALDERWOOD	0.3390	Confirmed LTF	0.3390
PRAIRIE	PRAIRIE	1.6970	Confirmed LTF	1.6970
CHEOAH	CHEOAH	0.3418	Confirmed LTF	0.3418
EDWARDS	EDWARDS	0.2268	Confirmed LTF	0.2268
TILTON	TILTON	0.4082	Confirmed LTF	0.4082
GIBSON	GIBSON	0.3554	Confirmed LTF	0.3554
BLUEG	BLUEG	1.1301	Confirmed LTF	1.1301
TRIMBLE	TRIMBLE	0.3623	Confirmed LTF	0.3623
CATAWBA	CATAWBA	0.2478	Confirmed LTF	0.2478

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
99336331	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP23	breaker	804.0	108.29	129.0	DC	166.26

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.3090	50/50	0.3090
232003	CARTANZA	35.0801	50/50	35.0801
232405	W1-003 E	1.3046	Adder	1.53
232407	W1-004 E	1.3046	Adder	1.53
232409	W1-005 E	1.3046	Adder	1.53
232411	W1-006 E	1.3046	Adder	1.53
232412	X1-032 E	1.1410	Adder	1.34
232418	X3-008 E	2.9466	Adder	3.47
232423	X3-066 E	0.5928	Adder	0.7
232425	Y1-079 E	1.0454	Adder	1.23
232427	Y1-080 E	0.5284	Adder	0.62
232429	Y3-058 E	2.5845	Adder	3.04
232432	Z2-076 C	0.2520	50/50	0.2520
232433	Z2-076 E	0.7361	50/50	0.7361
232434	Z2-077 C	0.2520	50/50	0.2520
232435	Z2-077 E	0.7361	50/50	0.7361
232436	AB1-176 C	0.2406	Adder	0.28
232616	GEN FOOD	1.7245	50/50	1.7245
232851	DUP-SFR1	0.6094	50/50	0.6094
232901	NORTHST	5.2189	50/50	5.2189
232904	IR4	26.9780	50/50	26.9780
232920	IR10	1.0356	50/50	1.0356
232921	TASLEY2G	1.2895	50/50	1.2895
232922	MR3 (Deactivation : 01/06/2021)	67.0885	50/50	67.0885
917082	Z2-012 E	3.5969	Adder	4.23
919831	AA2-069 (Suspended)	296.6362	50/50	296.6362
923282	AB1-137 C	1.5610	50/50	1.5610
923283	AB1-137 E	0.6690	50/50	0.6690
923322	AB1-141 C OP	2.0896	Adder	2.46
923323	AB1-141 E OP	0.9751	Adder	1.15
923332	AB1-142 C OP	2.0896	Adder	2.46
923603	AB1-176 E	0.3968	Adder	0.47
923921	AB2-032 C	2.1051	Adder	2.48
923922	AB2-032 E	0.9906	Adder	1.17
923951	AB2-036 C	5.8419	Adder	6.87
923952	AB2-036 E	9.5580	Adder	11.24
923961	AB2-037 C	12.7658	Adder	15.02
923962	AB2-037 E	20.8547	Adder	24.53
924681	AB2-120 C OP	12.9827	50/50	12.9827
924682	AB2-120 E OP	21.1823	50/50	21.1823
924781	AB2-130 C OP	11.1022	50/50	11.1022

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924782	AB2-130 E OP	18.1140	50/50	18.1140
924801	AB2-133 C OP	3.6875	Adder	4.34
924802	AB2-133 E OP	4.6768	Adder	5.5
924821	AB2-135 C	5.2881	Adder	6.22
924822	AB2-135 E	6.0309	Adder	7.1
924831	AB2-136 C	6.1379	Adder	7.22
924832	AB2-136 E	6.5091	Adder	7.66
924971	AB2-153 C	1.1764	Adder	1.38
924972	AB2-153 E	1.9193	Adder	2.26
925151	AB2-172 C OP	4.5149	Adder	5.31
925152	AB2-172 E OP	7.3664	Adder	8.67
925261	AB2-180 C	3.8907	Adder	4.58
925262	AB2-180 E	1.6674	Adder	1.96
925271	AB2-185 C OP	2.3605	Adder	2.78
925272	AB2-185 E OP	1.0116	Adder	1.19
926131	AC1-091 C	2.1565	Adder	2.54
926132	AC1-091 E	3.5367	Adder	4.16
926141	AC1-092 C	2.1565	Adder	2.54
926142	AC1-092 E	3.5367	Adder	4.16
926151	AC1-093 C	2.0415	Adder	2.4
926152	AC1-093 E	3.3642	Adder	3.96
926161	AC1-094 C	1.7252	Adder	2.03
926162	AC1-094 E	2.8466	Adder	3.35
927031	AC1-190 C	8.3773	Adder	9.86
927032	AC1-190 E	3.5903	Adder	4.22
927191	AC1-213 C	0.9101	Adder	1.07
927192	AC1-213 E	0.5973	Adder	0.7
930201	AB1-056 C	24.3348	50/50	24.3348
930202	AB1-056 E	69.3014	50/50	69.3014
930881	AB1-137 C	1.5610	50/50	1.5610
930882	AB1-137 E	0.6690	50/50	0.6690
930932	AB1-142 E OP	0.9751	Adder	1.15
932161	AC2-023 C	7.2429	Adder	8.52
932162	AC2-023 E	5.2750	Adder	6.21
933631	AC2-185 C	4.3706	Adder	5.14
933632	AC2-185 E	7.1309	Adder	8.39
933641	AC2-186 C	6.6329	50/50	6.6329
933642	AC2-186 E	10.8221	50/50	10.8221
936611	AD2-076 C O1	2.8243	Adder	3.32
936612	AD2-076 E O1	4.6081	Adder	5.42
938651	AE1-087 C	3.8020	Adder	4.47
938652	AE1-087 E	0.9505	Adder	1.12
938891	AE1-117 C O1	15.4231	50/50	15.4231
938892	AE1-117 E O1	41.0662	50/50	41.0662
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	15.4123	50/50	15.4123
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	41.0375	50/50	41.0375
939151	AE1-145	6.8344	50/50	6.8344
939621	AE1-192 C O1	13.6333	Adder	16.04
939622	AE1-192 E O1	6.6716	Adder	7.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941021	AE2-093 C	3.6397	Adder	4.28
941022	AE2-093 E	5.7829	Adder	6.8
941181	AE2-112 C	0.9799	Adder	1.15
941182	AE2-112 E	1.5987	Adder	1.88
942441	AE2-257 C	12.2951	50/50	12.2951
942442	AE2-257 E	32.4145	50/50	32.4145
943361	AF1-007 C	0.7180	50/50	0.7180
943362	AF1-007 E	2.0405	50/50	2.0405
943441	AF1-015 C	1.1640	Adder	1.37
943442	AF1-015 E	1.6074	Adder	1.89
943651	AF1-036 C	1.2741	Adder	1.5
943652	AF1-036 E	1.7595	Adder	2.07
944921	AF1-157 C O1	5.3508	50/50	5.3508
944922	AF1-157 E O1	3.5672	50/50	3.5672
945661	AF1-231 C	2.2040	Adder	2.59
945662	AF1-231 E	3.3060	Adder	3.89
945781	AF1-243	1.4504	Adder	1.71
945791	AF1-244	2.2732	Adder	2.67
945931	AF1-258	0.8893	Adder	1.05
945941	AF1-259	0.1275	Adder	0.15
946041	AF1-269 (Withdrawn : 05/12/2020)	2.7681	Adder	3.26
957611	AF2-055 C	5.3808	Adder	11.94
957612	AF2-055 E	2.3061	Adder	5.12
957661	AF2-060	3.0755	50/50	3.0755
957671	AF2-061 O1	13.6688	50/50	13.6688
958151	AF2-109 C	0.7945	Adder	1.76
958152	AF2-109 E	0.7945	Adder	1.76
959021	AF2-193 C O1	44.9665	50/50	44.9665
959022	AF2-193 E O1	121.2963	50/50	121.2963
959031	AF2-194 C O1	44.9665	50/50	44.9665
959032	AF2-194 E O1	121.2963	50/50	121.2963
959051	AF2-196 C	3.3532	50/50	3.3532
959052	AF2-196 E	7.8242	50/50	7.8242
959161	AF2-207 C O1	3.0476	Adder	6.76
959162	AF2-207 E O1	4.5714	Adder	10.15
959571	AF2-248 C	0.5134	Adder	1.14
959572	AF2-248 E	0.5738	Adder	1.27
959581	AF2-249 C	0.0906	Adder	0.2
959582	AF2-249 E	0.3624	Adder	0.8
959591	AF2-250 C	0.1661	Adder	0.37
959592	AF2-250 E	0.1284	Adder	0.29
960221	AF2-313 C	1.0726	Adder	2.38
960222	AF2-313 E	0.6081	Adder	1.35
960341	AF2-325 C	0.5432	Adder	1.21
960342	AF2-325 E	0.7501	Adder	1.67
960671	AF2-358 C O1	8.0503	Adder	17.87
960672	AF2-358 E O1	5.3669	Adder	11.91
960871	AF2-378 C	0.1447	Adder	0.32
960872	AF2-378 E	0.2007	Adder	0.45
960881	AF2-379 C	0.2454	Adder	0.54
960882	AF2-379 E	0.3382	Adder	0.75
960941	AF2-385 C O1	7.2561	Adder	16.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960942	AF2-385 E O1	4.0816	Adder	9.06
960961	AF2-387 C O1	6.1759	Adder	13.71
960962	AF2-387 E O1	3.0972	Adder	6.88
961181	AF2-409 O1	13.3334	Adder	29.6
NEWTON	NEWTON	0.3804	Confirmed LTF	0.3804
FARMERCITY	FARMERCITY	0.0198	Confirmed LTF	0.0198
CALDERWOOD	CALDERWOOD	0.1754	Confirmed LTF	0.1754
NY	NY	0.2555	Confirmed LTF	0.2555
PRAIRIE	PRAIRIE	0.9144	Confirmed LTF	0.9144
O-066	O-066	3.3600	Confirmed LTF	3.3600
CHEOAH	CHEOAH	0.1767	Confirmed LTF	0.1767
EDWARDS	EDWARDS	0.1239	Confirmed LTF	0.1239
TILTON	TILTON	0.2230	Confirmed LTF	0.2230
G-007	G-007	0.5595	Confirmed LTF	0.5595
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.1933	Confirmed LTF	0.1933
BLUEG	BLUEG	0.6145	Confirmed LTF	0.6145
TRIMBLE	TRIMBLE	0.1970	Confirmed LTF	0.1970
CATAWBA	CATAWBA	0.1228	Confirmed LTF	0.1228

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
101765802	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FS A-A	tower	348.0	104.86	115.11	DC	79.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.5398	50/50	0.5398
232405	W1-003 E	0.9090	50/50	0.9090
232406	W1-004 FULL	0.5398	50/50	0.5398
232407	W1-004 E	0.9090	50/50	0.9090
232408	W1-005 C	0.5398	50/50	0.5398
232409	W1-005 E	0.9090	50/50	0.9090
232410	W1-006 C	0.5398	50/50	0.5398
232411	W1-006 E	0.9090	50/50	0.9090
232412	X1-032 E	0.8192	50/50	0.8192
232417	X3-008 C	0.3307	50/50	0.3307
232418	X3-008 E	3.1277	50/50	3.1277
232422	X3-066 FULL	0.1653	50/50	0.1653
232423	X3-066 E	1.5632	50/50	1.5632
232424	Y1-079 C	0.2436	50/50	0.2436
232425	Y1-079 E	2.3039	50/50	2.3039
232426	Y1-080 FULL	0.0519	50/50	0.0519
232427	Y1-080 E	0.4932	50/50	0.4932
232428	Y3-058 C	0.2078	50/50	0.2078
232429	Y3-058 E	1.9655	50/50	1.9655
232433	Z2-076 E	0.3208	Adder	0.38
232435	Z2-077 E	0.3208	Adder	0.38
232436	AB1-176 C	0.6345	50/50	0.6345
232813	VAUGHN	0.1155	50/50	0.1155
232902	EASTMUNI	3.7067	50/50	3.7067
232907	VN8	5.9640	50/50	5.9640
232910	NRG_G1	1.8200	50/50	1.8200
232911	NRG_G2	1.8200	50/50	1.8200
232919	VN10	0.4079	50/50	0.4079
232922	MR3 (Deactivation : 01/06/2021)	9.0862	Adder	10.69
232926	CRISFLD1	0.3545	50/50	0.3545
293670	O-025 C	0.2133	50/50	0.2133
917082	Z2-012 E	2.1263	Adder	2.5
918831	AA1-102	1.3293	50/50	1.3293
919831	AA2-069 (Suspended)	40.1751	Adder	47.26
923282	AB1-137 C	0.6591	Adder	0.78
923283	AB1-137 E	0.2825	Adder	0.33
923322	AB1-141 C OP	5.7565	50/50	5.7565
923323	AB1-141 E OP	2.6864	50/50	2.6864
923332	AB1-142 C OP	5.7565	50/50	5.7565
923603	AB1-176 E	1.0463	50/50	1.0463
923921	AB2-032 C	5.7992	50/50	5.7992

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923922	AB2-032 E	2.7290	50/50	2.7290
923951	AB2-036 C	12.6924	50/50	12.6924
923952	AB2-036 E	20.7661	50/50	20.7661
924681	AB2-120 C OP	6.5091	Adder	7.66
924682	AB2-120 E OP	10.6201	Adder	12.49
924781	AB2-130 C OP	5.4762	Adder	6.44
924782	AB2-130 E OP	8.9348	Adder	10.51
924801	AB2-133 C OP	11.5595	50/50	11.5595
924802	AB2-133 E OP	14.6609	50/50	14.6609
924821	AB2-135 C	12.3188	50/50	12.3188
924822	AB2-135 E	14.0492	50/50	14.0492
924831	AB2-136 C	5.9522	50/50	5.9522
924832	AB2-136 E	6.3123	50/50	6.3123
924971	AB2-153 C	3.2407	50/50	3.2407
924972	AB2-153 E	5.2875	50/50	5.2875
925151	AB2-172 C OP	4.7924	50/50	4.7924
925152	AB2-172 E OP	7.8191	50/50	7.8191
925251	AB2-179 C OP	-9.1300	Adder	-10.74
925261	AB2-180 C	2.9588	50/50	2.9588
925262	AB2-180 E	1.2680	50/50	1.2680
925271	AB2-185 C OP	5.2023	50/50	5.2023
925272	AB2-185 E OP	2.2295	50/50	2.2295
926131	AC1-091 C	0.6416	Adder	0.75
926132	AC1-091 E	1.0523	Adder	1.24
926141	AC1-092 C	0.6416	Adder	0.75
926142	AC1-092 E	1.0523	Adder	1.24
926151	AC1-093 C	0.6074	Adder	0.71
926152	AC1-093 E	1.0010	Adder	1.18
926161	AC1-094 C	0.5133	Adder	0.6
926162	AC1-094 E	0.8470	Adder	1.0
927031	AC1-190 C	8.7532	50/50	8.7532
927032	AC1-190 E	3.7514	50/50	3.7514
927191	AC1-213 C	0.6596	50/50	0.6596
927192	AC1-213 E	0.4328	50/50	0.4328
930201	AB1-056 C	9.9441	Adder	11.7
930202	AB1-056 E	28.3190	Adder	33.32
930881	AB1-137 C	0.6591	Adder	0.78
930882	AB1-137 E	0.2825	Adder	0.33
930932	AB1-142 E OP	2.6864	50/50	2.6864
932161	AC2-023 C	5.6983	50/50	5.6983
932162	AC2-023 E	4.1501	50/50	4.1501
933631	AC2-185 C	1.3004	Adder	1.53
933632	AC2-185 E	2.1217	Adder	2.5
933641	AC2-186 C	3.1357	Adder	3.69
933642	AC2-186 E	5.1161	Adder	6.02
936611	AD2-076 C O1	8.1874	50/50	8.1874
936612	AD2-076 E O1	13.3584	50/50	13.3584
938651	AE1-087 C	4.0357	50/50	4.0357
938652	AE1-087 E	1.0089	50/50	1.0089
938891	AE1-117 C O1	6.5135	Adder	7.66
938892	AE1-117 E O1	17.3433	Adder	20.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	6.5188	Adder	7.67
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	17.3573	Adder	20.42
939151	AE1-145	3.4253	Adder	4.03
939621	AE1-192 C O1	8.0595	Adder	9.48
939622	AE1-192 E O1	3.9440	Adder	4.64
941021	AE2-093 C	5.9738	50/50	5.9738
941022	AE2-093 E	9.4914	50/50	9.4914
941181	AE2-112 C	2.8405	50/50	2.8405
941182	AE2-112 E	4.6345	50/50	4.6345
942441	AE2-257 C	5.1662	Adder	6.08
942442	AE2-257 E	13.6201	Adder	16.02
943361	AF1-007 C	0.2934	Adder	0.35
943362	AF1-007 E	0.8338	Adder	0.98
943441	AF1-015 C	1.9104	50/50	1.9104
943442	AF1-015 E	2.6382	50/50	2.6382
943651	AF1-036 C	3.6936	50/50	3.6936
943652	AF1-036 E	5.1006	50/50	5.1006
944921	AF1-157 C O1	2.4567	Adder	2.89
944922	AF1-157 E O1	1.6378	Adder	1.93
945661	AF1-231 C	1.3034	Adder	1.53
945662	AF1-231 E	1.9552	Adder	2.3
945781	AF1-243	0.8574	Adder	1.01
945791	AF1-244	1.6440	50/50	1.6440
945931	AF1-258	0.6763	50/50	0.6763
945941	AF1-259	0.3362	50/50	0.3362
946041	AF1-269 (Withdrawn : 05/12/2020)	2.5836	50/50	2.5836
957611	AF2-055 C	3.1809	Adder	7.06
957612	AF2-055 E	1.3633	Adder	3.03
957661	AF2-060	0.8169	Adder	1.81
957671	AF2-061 O1	3.6308	Adder	8.06
958151	AF2-109 C	4.6990	50/50	4.6990
958152	AF2-109 E	4.6990	50/50	4.6990
959021	AF2-193 C O1	9.7387	Adder	21.62
959022	AF2-193 E O1	26.2699	Adder	58.31
959031	AF2-194 C O1	9.7387	Adder	21.62
959032	AF2-194 E O1	26.2699	Adder	58.31
959051	AF2-196 C	0.7468	Adder	1.66
959052	AF2-196 E	1.7424	Adder	3.87
959161	AF2-207 C O1	4.1274	50/50	4.1274
959162	AF2-207 E O1	6.1910	50/50	6.1910
959571	AF2-248 C	0.6978	50/50	0.6978
959572	AF2-248 E	0.7799	50/50	0.7799
959581	AF2-249 C	0.1231	50/50	0.1231
959582	AF2-249 E	0.4926	50/50	0.4926
959591	AF2-250 C	0.2258	50/50	0.2258
959592	AF2-250 E	0.1745	50/50	0.1745
960221	AF2-313 C	5.3367	50/50	5.3367
960222	AF2-313 E	3.0255	50/50	3.0255

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960341	AF2-325 C	1.0261	50/50	1.0261
960342	AF2-325 E	1.4170	50/50	1.4170
960671	AF2-358 C O1	13.9800	50/50	13.9800
960672	AF2-358 E O1	9.3200	50/50	9.3200
960871	AF2-378 C	0.2686	50/50	0.2686
960872	AF2-378 E	0.3727	50/50	0.3727
960881	AF2-379 C	0.3393	50/50	0.3393
960882	AF2-379 E	0.4676	50/50	0.4676
960941	AF2-385 C O1	9.8270	50/50	9.8270
960942	AF2-385 E O1	5.5277	50/50	5.5277
960961	AF2-387 C O1	22.1865	50/50	22.1865
960962	AF2-387 E O1	11.1265	50/50	11.1265
961181	AF2-409 O1	22.5980	50/50	22.5980
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0097	Confirmed LTF	0.0097
CALDERWOOD	CALDERWOOD	0.0870	Confirmed LTF	0.0870
NY	NY	0.0603	Confirmed LTF	0.0603
PRAIRIE	PRAIRIE	0.4494	Confirmed LTF	0.4494
O-066	O-066	0.5309	Confirmed LTF	0.5309
CHEOAH	CHEOAH	0.0876	Confirmed LTF	0.0876
EDWARDS	EDWARDS	0.0609	Confirmed LTF	0.0609
TILTON	TILTON	0.1096	Confirmed LTF	0.1096
G-007	G-007	0.0530	Confirmed LTF	0.0530
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0619	Confirmed LTF	0.0619

11.6.14 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 %	ACID C	MW IMPACT
101765808	232106	MIDLTNT P	DP&L	232104	MT PLSN T	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	100.74	111.0	DC	79.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.5398	50/50	0.5398
232405	W1-003 E	0.9090	50/50	0.9090
232406	W1-004 FULL	0.5398	50/50	0.5398
232407	W1-004 E	0.9090	50/50	0.9090
232408	W1-005 C	0.5398	50/50	0.5398
232409	W1-005 E	0.9090	50/50	0.9090
232410	W1-006 C	0.5398	50/50	0.5398
232411	W1-006 E	0.9090	50/50	0.9090
232412	X1-032 E	0.8192	50/50	0.8192
232417	X3-008 C	0.3307	50/50	0.3307
232418	X3-008 E	3.1277	50/50	3.1277
232422	X3-066 FULL	0.1653	50/50	0.1653
232423	X3-066 E	1.5632	50/50	1.5632
232424	Y1-079 C	0.2436	50/50	0.2436
232425	Y1-079 E	2.3039	50/50	2.3039
232426	Y1-080 FULL	0.0519	50/50	0.0519
232427	Y1-080 E	0.4932	50/50	0.4932
232428	Y3-058 C	0.2078	50/50	0.2078
232429	Y3-058 E	1.9655	50/50	1.9655
232433	Z2-076 E	0.3208	Adder	0.38
232435	Z2-077 E	0.3208	Adder	0.38
232436	AB1-176 C	0.6345	50/50	0.6345
232813	VAUGHN	0.1155	50/50	0.1155
232902	EASTMUNI	3.7067	50/50	3.7067
232907	VN8	5.9640	50/50	5.9640
232910	NRG_G1	1.8200	50/50	1.8200
232911	NRG_G2	1.8200	50/50	1.8200
232919	VN10	0.4079	50/50	0.4079
232922	MR3 (Deactivation : 01/06/2021)	9.0862	Adder	10.69
232926	CRISFLD1	0.3545	50/50	0.3545
293670	O-025 C	0.2133	50/50	0.2133
917082	Z2-012 E	2.1263	Adder	2.5
918831	AA1-102	1.3293	50/50	1.3293
919831	AA2-069 (Suspended)	40.1751	Adder	47.26
923282	AB1-137 C	0.6591	Adder	0.78
923283	AB1-137 E	0.2825	Adder	0.33
923322	AB1-141 C OP	5.7565	50/50	5.7565
923323	AB1-141 E OP	2.6864	50/50	2.6864
923332	AB1-142 C OP	5.7565	50/50	5.7565
923603	AB1-176 E	1.0463	50/50	1.0463
923921	AB2-032 C	5.7992	50/50	5.7992

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923922	AB2-032 E	2.7290	50/50	2.7290
923951	AB2-036 C	12.6924	50/50	12.6924
923952	AB2-036 E	20.7661	50/50	20.7661
924681	AB2-120 C OP	6.5091	Adder	7.66
924682	AB2-120 E OP	10.6201	Adder	12.49
924781	AB2-130 C OP	5.4762	Adder	6.44
924782	AB2-130 E OP	8.9348	Adder	10.51
924801	AB2-133 C OP	11.5595	50/50	11.5595
924802	AB2-133 E OP	14.6609	50/50	14.6609
924821	AB2-135 C	12.3188	50/50	12.3188
924822	AB2-135 E	14.0492	50/50	14.0492
924831	AB2-136 C	5.9522	50/50	5.9522
924832	AB2-136 E	6.3123	50/50	6.3123
924971	AB2-153 C	3.2407	50/50	3.2407
924972	AB2-153 E	5.2875	50/50	5.2875
925151	AB2-172 C OP	4.7924	50/50	4.7924
925152	AB2-172 E OP	7.8191	50/50	7.8191
925251	AB2-179 C OP	26.8588	50/50	26.8588
925252	AB2-179 E OP	8.8577	50/50	8.8577
925261	AB2-180 C	2.9588	50/50	2.9588
925262	AB2-180 E	1.2680	50/50	1.2680
925271	AB2-185 C OP	5.2023	50/50	5.2023
925272	AB2-185 E OP	2.2295	50/50	2.2295
927031	AC1-190 C	8.7532	50/50	8.7532
927032	AC1-190 E	3.7514	50/50	3.7514
927191	AC1-213 C	0.6596	50/50	0.6596
927192	AC1-213 E	0.4328	50/50	0.4328
930201	AB1-056 C	9.9441	Adder	11.7
930202	AB1-056 E	28.3190	Adder	33.32
930881	AB1-137 C	0.6591	Adder	0.78
930882	AB1-137 E	0.2825	Adder	0.33
930932	AB1-142 E OP	2.6864	50/50	2.6864
932161	AC2-023 C	5.6983	50/50	5.6983
932162	AC2-023 E	4.1501	50/50	4.1501
933641	AC2-186 C	3.1357	Adder	3.69
933642	AC2-186 E	5.1161	Adder	6.02
936611	AD2-076 C O1	8.1874	50/50	8.1874
936612	AD2-076 E O1	13.3584	50/50	13.3584
938651	AE1-087 C	4.0357	50/50	4.0357
938652	AE1-087 E	1.0089	50/50	1.0089
938891	AE1-117 C O1	6.5135	Adder	7.66
938892	AE1-117 E O1	17.3433	Adder	20.4
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	6.5188	Adder	7.67
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	17.3573	Adder	20.42
939151	AE1-145	3.4253	Adder	4.03
939621	AE1-192 C O1	8.0595	Adder	9.48
939622	AE1-192 E O1	3.9440	Adder	4.64
941021	AE2-093 C	5.9738	50/50	5.9738
941022	AE2-093 E	9.4914	50/50	9.4914

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941181	AE2-112 C	2.8405	50/50	2.8405
941182	AE2-112 E	4.6345	50/50	4.6345
942441	AE2-257 C	5.1662	Adder	6.08
942442	AE2-257 E	13.6201	Adder	16.02
943361	AF1-007 C	0.2934	Adder	0.35
943362	AF1-007 E	0.8338	Adder	0.98
943441	AF1-015 C	1.9104	50/50	1.9104
943442	AF1-015 E	2.6382	50/50	2.6382
943651	AF1-036 C	3.6936	50/50	3.6936
943652	AF1-036 E	5.1006	50/50	5.1006
944921	AF1-157 C O1	2.4567	Adder	2.89
944922	AF1-157 E O1	1.6378	Adder	1.93
945661	AF1-231 C	1.3034	Adder	1.53
945662	AF1-231 E	1.9552	Adder	2.3
945781	AF1-243	0.8574	Adder	1.01
945791	AF1-244	1.6440	50/50	1.6440
945931	AF1-258	0.6763	50/50	0.6763
945941	AF1-259	0.3362	50/50	0.3362
946041	AF1-269 (Withdrawn : 05/12/2020)	2.5836	50/50	2.5836
957611	AF2-055 C	3.1809	Adder	7.06
957612	AF2-055 E	1.3633	Adder	3.03
957661	AF2-060	0.8169	Adder	1.81
957671	AF2-061 O1	3.6308	Adder	8.06
958151	AF2-109 C	4.6990	50/50	4.6990
958152	AF2-109 E	4.6990	50/50	4.6990
959021	AF2-193 C O1	9.7387	Adder	21.62
959022	AF2-193 E O1	26.2699	Adder	58.31
959031	AF2-194 C O1	9.7387	Adder	21.62
959032	AF2-194 E O1	26.2699	Adder	58.31
959051	AF2-196 C	0.7468	Adder	1.66
959052	AF2-196 E	1.7424	Adder	3.87
959161	AF2-207 C O1	4.1274	50/50	4.1274
959162	AF2-207 E O1	6.1910	50/50	6.1910
959571	AF2-248 C	0.6978	50/50	0.6978
959572	AF2-248 E	0.7799	50/50	0.7799
959581	AF2-249 C	0.1231	50/50	0.1231
959582	AF2-249 E	0.4926	50/50	0.4926
959591	AF2-250 C	0.2258	50/50	0.2258
959592	AF2-250 E	0.1745	50/50	0.1745
960221	AF2-313 C	5.3367	50/50	5.3367
960222	AF2-313 E	3.0255	50/50	3.0255
960341	AF2-325 C	1.0261	50/50	1.0261
960342	AF2-325 E	1.4170	50/50	1.4170
960671	AF2-358 C O1	13.9800	50/50	13.9800
960672	AF2-358 E O1	9.3200	50/50	9.3200
960871	AF2-378 C	0.2686	50/50	0.2686
960872	AF2-378 E	0.3727	50/50	0.3727
960881	AF2-379 C	0.3393	50/50	0.3393
960882	AF2-379 E	0.4676	50/50	0.4676
960941	AF2-385 C O1	9.8270	50/50	9.8270
960942	AF2-385 E O1	5.5277	50/50	5.5277
960961	AF2-387 C O1	22.1865	50/50	22.1865

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960962	AF2-387 E O1	11.1265	50/50	11.1265
961181	AF2-409 O1	22.5980	50/50	22.5980
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0097	Confirmed LTF	0.0097
CALDERWOOD	CALDERWOOD	0.0870	Confirmed LTF	0.0870
NY	NY	0.0603	Confirmed LTF	0.0603
PRAIRIE	PRAIRIE	0.4494	Confirmed LTF	0.4494
O-066	O-066	0.5309	Confirmed LTF	0.5309
CHEOAH	CHEOAH	0.0876	Confirmed LTF	0.0876
EDWARDS	EDWARDS	0.0609	Confirmed LTF	0.0609
TILTON	TILTON	0.1096	Confirmed LTF	0.1096
G-007	G-007	0.0530	Confirmed LTF	0.0530
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0619	Confirmed LTF	0.0619

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
10176579 2	23210 7	TOWNSEN D	DP&L	23210 6	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A-A	tower	348.0	110.05	120.31	DC	79.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.5398	50/50	0.5398
232405	W1-003 E	0.9090	50/50	0.9090
232406	W1-004 FULL	0.5398	50/50	0.5398
232407	W1-004 E	0.9090	50/50	0.9090
232408	W1-005 C	0.5398	50/50	0.5398
232409	W1-005 E	0.9090	50/50	0.9090
232410	W1-006 C	0.5398	50/50	0.5398
232411	W1-006 E	0.9090	50/50	0.9090
232412	X1-032 E	0.8192	50/50	0.8192
232417	X3-008 C	0.3307	50/50	0.3307
232418	X3-008 E	3.1277	50/50	3.1277
232422	X3-066 FULL	0.1653	50/50	0.1653
232423	X3-066 E	1.5632	50/50	1.5632
232424	Y1-079 C	0.2436	50/50	0.2436
232425	Y1-079 E	2.3039	50/50	2.3039
232426	Y1-080 FULL	0.0519	50/50	0.0519
232427	Y1-080 E	0.4932	50/50	0.4932
232428	Y3-058 C	0.2078	50/50	0.2078
232429	Y3-058 E	1.9655	50/50	1.9655
232433	Z2-076 E	0.3208	Adder	0.38
232435	Z2-077 E	0.3208	Adder	0.38
232436	AB1-176 C	0.6345	50/50	0.6345
232813	VAUGHN	0.1155	50/50	0.1155
232902	EASTMUNI	3.7067	50/50	3.7067
232907	VN8	5.9640	50/50	5.9640
232910	NRG_G1	1.8200	50/50	1.8200
232911	NRG_G2	1.8200	50/50	1.8200
232919	VN10	0.4079	50/50	0.4079
232922	MR3 (Deactivation : 01/06/2021)	9.0862	Adder	10.69
232926	CRISFLD1	0.3545	50/50	0.3545
293670	O-025 C	0.2133	50/50	0.2133
917082	Z2-012 E	2.1263	Adder	2.5
918831	AA1-102	1.3293	50/50	1.3293
919831	AA2-069 (Suspended)	40.1751	Adder	47.26
923282	AB1-137 C	0.6591	Adder	0.78
923283	AB1-137 E	0.2825	Adder	0.33
923322	AB1-141 C OP	5.7565	50/50	5.7565
923323	AB1-141 E OP	2.6864	50/50	2.6864
923332	AB1-142 C OP	5.7565	50/50	5.7565
923603	AB1-176 E	1.0463	50/50	1.0463
923921	AB2-032 C	5.7992	50/50	5.7992

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923922	AB2-032 E	2.7290	50/50	2.7290
923951	AB2-036 C	12.6924	50/50	12.6924
923952	AB2-036 E	20.7661	50/50	20.7661
924681	AB2-120 C OP	6.5091	Adder	7.66
924682	AB2-120 E OP	10.6201	Adder	12.49
924781	AB2-130 C OP	5.4762	Adder	6.44
924782	AB2-130 E OP	8.9348	Adder	10.51
924801	AB2-133 C OP	11.5595	50/50	11.5595
924802	AB2-133 E OP	14.6609	50/50	14.6609
924821	AB2-135 C	12.3188	50/50	12.3188
924822	AB2-135 E	14.0492	50/50	14.0492
924831	AB2-136 C	5.9522	50/50	5.9522
924832	AB2-136 E	6.3123	50/50	6.3123
924971	AB2-153 C	3.2407	50/50	3.2407
924972	AB2-153 E	5.2875	50/50	5.2875
925151	AB2-172 C OP	4.7924	50/50	4.7924
925152	AB2-172 E OP	7.8191	50/50	7.8191
925251	AB2-179 C OP	26.8588	50/50	26.8588
925252	AB2-179 E OP	8.8577	50/50	8.8577
925261	AB2-180 C	2.9588	50/50	2.9588
925262	AB2-180 E	1.2680	50/50	1.2680
925271	AB2-185 C OP	5.2023	50/50	5.2023
925272	AB2-185 E OP	2.2295	50/50	2.2295
927031	AC1-190 C	8.7532	50/50	8.7532
927032	AC1-190 E	3.7514	50/50	3.7514
927191	AC1-213 C	0.6596	50/50	0.6596
927192	AC1-213 E	0.4328	50/50	0.4328
930201	AB1-056 C	9.9441	Adder	11.7
930202	AB1-056 E	28.3190	Adder	33.32
930881	AB1-137 C	0.6591	Adder	0.78
930882	AB1-137 E	0.2825	Adder	0.33
930932	AB1-142 E OP	2.6864	50/50	2.6864
932161	AC2-023 C	5.6983	50/50	5.6983
932162	AC2-023 E	4.1501	50/50	4.1501
933641	AC2-186 C	3.1357	Adder	3.69
933642	AC2-186 E	5.1161	Adder	6.02
936611	AD2-076 C O1	8.1874	50/50	8.1874
936612	AD2-076 E O1	13.3584	50/50	13.3584
938651	AE1-087 C	4.0357	50/50	4.0357
938652	AE1-087 E	1.0089	50/50	1.0089
938891	AE1-117 C O1	6.5135	Adder	7.66
938892	AE1-117 E O1	17.3433	Adder	20.4
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	6.5188	Adder	7.67
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	17.3573	Adder	20.42
939151	AE1-145	3.4253	Adder	4.03
939621	AE1-192 C O1	8.0595	Adder	9.48
939622	AE1-192 E O1	3.9440	Adder	4.64
941021	AE2-093 C	5.9738	50/50	5.9738
941022	AE2-093 E	9.4914	50/50	9.4914

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941181	AE2-112 C	2.8405	50/50	2.8405
941182	AE2-112 E	4.6345	50/50	4.6345
942441	AE2-257 C	5.1662	Adder	6.08
942442	AE2-257 E	13.6201	Adder	16.02
943361	AF1-007 C	0.2934	Adder	0.35
943362	AF1-007 E	0.8338	Adder	0.98
943441	AF1-015 C	1.9104	50/50	1.9104
943442	AF1-015 E	2.6382	50/50	2.6382
943651	AF1-036 C	3.6936	50/50	3.6936
943652	AF1-036 E	5.1006	50/50	5.1006
944921	AF1-157 C O1	2.4567	Adder	2.89
944922	AF1-157 E O1	1.6378	Adder	1.93
945661	AF1-231 C	1.3034	Adder	1.53
945662	AF1-231 E	1.9552	Adder	2.3
945781	AF1-243	0.8574	Adder	1.01
945791	AF1-244	1.6440	50/50	1.6440
945931	AF1-258	0.6763	50/50	0.6763
945941	AF1-259	0.3362	50/50	0.3362
946041	AF1-269 (Withdrawn : 05/12/2020)	2.5836	50/50	2.5836
957611	AF2-055 C	3.1809	Adder	7.06
957612	AF2-055 E	1.3633	Adder	3.03
957661	AF2-060	0.8169	Adder	1.81
957671	AF2-061 O1	3.6308	Adder	8.06
958151	AF2-109 C	4.6990	50/50	4.6990
958152	AF2-109 E	4.6990	50/50	4.6990
959021	AF2-193 C O1	9.7387	Adder	21.62
959022	AF2-193 E O1	26.2699	Adder	58.31
959031	AF2-194 C O1	9.7387	Adder	21.62
959032	AF2-194 E O1	26.2699	Adder	58.31
959051	AF2-196 C	0.7468	Adder	1.66
959052	AF2-196 E	1.7424	Adder	3.87
959161	AF2-207 C O1	4.1274	50/50	4.1274
959162	AF2-207 E O1	6.1910	50/50	6.1910
959571	AF2-248 C	0.6978	50/50	0.6978
959572	AF2-248 E	0.7799	50/50	0.7799
959581	AF2-249 C	0.1231	50/50	0.1231
959582	AF2-249 E	0.4926	50/50	0.4926
959591	AF2-250 C	0.2258	50/50	0.2258
959592	AF2-250 E	0.1745	50/50	0.1745
960221	AF2-313 C	5.3367	50/50	5.3367
960222	AF2-313 E	3.0255	50/50	3.0255
960341	AF2-325 C	1.0261	50/50	1.0261
960342	AF2-325 E	1.4170	50/50	1.4170
960671	AF2-358 C O1	13.9800	50/50	13.9800
960672	AF2-358 E O1	9.3200	50/50	9.3200
960871	AF2-378 C	0.2686	50/50	0.2686
960872	AF2-378 E	0.3727	50/50	0.3727
960881	AF2-379 C	0.3393	50/50	0.3393
960882	AF2-379 E	0.4676	50/50	0.4676
960941	AF2-385 C O1	9.8270	50/50	9.8270
960942	AF2-385 E O1	5.5277	50/50	5.5277
960961	AF2-387 C O1	22.1865	50/50	22.1865

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960962	AF2-387 E O1	11.1265	50/50	11.1265
961181	AF2-409 O1	22.5980	50/50	22.5980
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0097	Confirmed LTF	0.0097
CALDERWOOD	CALDERWOOD	0.0870	Confirmed LTF	0.0870
NY	NY	0.0603	Confirmed LTF	0.0603
PRAIRIE	PRAIRIE	0.4494	Confirmed LTF	0.4494
O-066	O-066	0.5309	Confirmed LTF	0.5309
CHEOAH	CHEOAH	0.0876	Confirmed LTF	0.0876
EDWARDS	EDWARDS	0.0609	Confirmed LTF	0.0609
TILTON	TILTON	0.1096	Confirmed LTF	0.1096
G-007	G-007	0.0530	Confirmed LTF	0.0530
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0619	Confirmed LTF	0.0619

11.6.16 Index 16

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
101765124	232128	PINEY138	DP&L	232127	LORETTO	DP&L	1	DPL_P1_2_CKT 13787	single	158.0	110.03	114.8	DC	7.53

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.8470	80/20	0.8470
232406	W1-004 FULL	0.8470	80/20	0.8470
232408	W1-005 C	0.8470	80/20	0.8470
232410	W1-006 C	0.8470	80/20	0.8470
232904	IR4	4.5157	80/20	4.5157
232905	BAYVIEW1	0.6798	80/20	0.6798
232912	OH NUG1	1.7852	80/20	1.7852
232913	OH NUG2	1.7614	80/20	1.7614
232914	OH NUG3	1.7852	80/20	1.7852
232915	OH NUG4	1.7852	80/20	1.7852
232916	OH NUG5	1.7852	80/20	1.7852
232917	OH NUG6	1.7773	80/20	1.7773
232918	OH NUG7	1.7733	80/20	1.7733
232921	TASLEY2G	1.1912	80/20	1.1912
917081	Z2-012 C	0.4133	80/20	0.4133
924681	AB2-120 C OP	12.0650	80/20	12.0650
930201	AB1-056 C	4.0733	80/20	4.0733
939151	AE1-145	6.2608	80/20	6.2608
939621	AE1-192 C O1	14.8172	80/20	14.8172
943361	AF1-007 C	0.1202	80/20	0.1202
945661	AF1-231 C	2.4098	80/20	2.4098
945781	AF1-243	1.5763	80/20	1.5763
957611	AF2-055 C	11.0341	80/20	11.0341
957661	AF2-060	2.8174	80/20	2.8174
957671	AF2-061 O1	12.5216	80/20	12.5216
959021	AF2-193 C O1	7.5268	80/20	7.5268
959031	AF2-194 C O1	7.5268	80/20	7.5268
NEWTON	NEWTON	0.0731	Confirmed LTF	0.0731
FARMERCITY	FARMERCITY	0.0038	Confirmed LTF	0.0038
CALDERWOOD	CALDERWOOD	0.0338	Confirmed LTF	0.0338
NY	NY	0.0332	Confirmed LTF	0.0332
PRAIRIE	PRAIRIE	0.1756	Confirmed LTF	0.1756
CHEOAH	CHEOAH	0.0340	Confirmed LTF	0.0340
EDWARDS	EDWARDS	0.0238	Confirmed LTF	0.0238
TILTON	TILTON	0.0428	Confirmed LTF	0.0428
GIBSON	GIBSON	0.0371	Confirmed LTF	0.0371
BLUEG	BLUEG	0.1180	Confirmed LTF	0.1180
TRIMBLE	TRIMBLE	0.0378	Confirmed LTF	0.0378
CATAWBA	CATAWBA	0.0238	Confirmed LTF	0.0238

11.6.17 Index 17

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
101764696	232215	KENT	DP&L	232812	NMEREDTH	DP&L	1	DPL_P4-2_DP11	breaker	93.0	101.19	113.33	DC	24.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.2068	Adder	0.24
232407	W1-004 E	0.2068	Adder	0.24
232409	W1-005 E	0.2068	Adder	0.24
232411	W1-006 E	0.2068	Adder	0.24
232412	X1-032 E	0.1823	Adder	0.21
232429	Y3-058 E	0.4017	Adder	0.47
232433	Z2-076 E	0.0983	Adder	0.12
232435	Z2-077 E	0.0983	Adder	0.12
232813	VAUGHN	0.1279	50/50	0.1279
232899	W1-062	0.9333	50/50	0.9333
232900	DEMECSMY	0.9333	50/50	0.9333
232910	NRG_G1	2.3092	50/50	2.3092
232911	NRG_G2	2.3092	50/50	2.3092
917082	Z2-012 E	0.5697	Adder	0.67
923282	AB1-137 C	0.2078	Adder	0.24
923283	AB1-137 E	0.0891	Adder	0.1
923322	AB1-141 C OP	-1.0388	Adder	-1.22
923332	AB1-142 C OP	-1.0388	Adder	-1.22
923921	AB2-032 C	-1.0465	Adder	-1.23
924681	AB2-120 C OP	1.7468	Adder	2.06
924682	AB2-120 E OP	2.8500	Adder	3.35
924781	AB2-130 C OP	1.7505	Adder	2.06
924782	AB2-130 E OP	2.8561	Adder	3.36
924971	AB2-153 C	-0.5848	Adder	-0.69
925251	AB2-179 C OP	-2.0557	Adder	-2.42
925261	AB2-180 C	0.6048	Adder	0.71
925262	AB2-180 E	0.2592	Adder	0.3
926131	AC1-091 C	0.4457	Adder	0.52
926132	AC1-091 E	0.7309	Adder	0.86
926141	AC1-092 C	0.4457	Adder	0.52
926142	AC1-092 E	0.7309	Adder	0.86
926151	AC1-093 C	0.4219	Adder	0.5
926152	AC1-093 E	0.6953	Adder	0.82
926161	AC1-094 C	0.3565	Adder	0.42
926162	AC1-094 E	0.5883	Adder	0.69
927191	AC1-213 C	0.1456	Adder	0.17
927192	AC1-213 E	0.0956	Adder	0.11
930201	AB1-056 C	3.1070	Adder	3.66
930202	AB1-056 E	8.8483	Adder	10.41
930881	AB1-137 C	0.2078	Adder	0.24
930882	AB1-137 E	0.0891	Adder	0.1
933631	AC2-185 C	0.9032	Adder	1.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933632	AC2-185 E	1.4737	Adder	1.73
933641	AC2-186 C	2.7814	50/50	2.7814
933642	AC2-186 E	4.5381	50/50	4.5381
938891	AE1-117 C O1	2.0516	Adder	2.41
938892	AE1-117 E O1	5.4627	Adder	6.43
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.0509	Adder	2.41
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	5.4608	Adder	6.42
939151	AE1-145	0.9194	Adder	1.08
939621	AE1-192 C O1	2.1593	Adder	2.54
939622	AE1-192 E O1	1.0567	Adder	1.24
942441	AE2-257 C	1.6289	Adder	1.92
942442	AE2-257 E	4.2943	Adder	5.05
943361	AF1-007 C	0.0917	Adder	0.11
943362	AF1-007 E	0.2605	Adder	0.31
944921	AF1-157 C O1	0.7817	Adder	0.92
944922	AF1-157 E O1	0.5211	Adder	0.61
945661	AF1-231 C	0.3491	Adder	0.41
945662	AF1-231 E	0.5236	Adder	0.62
945781	AF1-243	0.2297	Adder	0.27
945791	AF1-244	0.3641	Adder	0.43
945931	AF1-258	0.1382	Adder	0.16
957611	AF2-055 C	0.8522	Adder	1.89
957612	AF2-055 E	0.3652	Adder	0.81
957661	AF2-060	0.2193	Adder	0.49
957671	AF2-061 O1	0.9745	Adder	2.16
958153	AF2-109 BAT	3.2376	50/50	3.2376
959021	AF2-193 C O1	3.0429	Adder	6.75
959022	AF2-193 E O1	8.2081	Adder	18.22
959031	AF2-194 C O1	3.0429	Adder	6.75
959032	AF2-194 E O1	8.2081	Adder	18.22
959051	AF2-196 C	0.2354	Adder	0.52
959052	AF2-196 E	0.5494	Adder	1.22
959161	AF2-207 C O1	0.5175	Adder	1.15
959162	AF2-207 E O1	0.7762	Adder	1.72
959571	AF2-248 C	0.0853	Adder	0.19
959572	AF2-248 E	0.0954	Adder	0.21
959581	AF2-249 C	0.0151	Adder	0.03
959582	AF2-249 E	0.0602	Adder	0.13
959591	AF2-250 C	0.0276	Adder	0.06
959592	AF2-250 E	0.0213	Adder	0.05
960881	AF2-379 C	0.0394	Adder	0.09
960882	AF2-379 E	0.0543	Adder	0.12
960941	AF2-385 C O1	1.2321	Adder	2.73
960942	AF2-385 E O1	0.6931	Adder	1.54
961181	AF2-409 O1	2.2845	Adder	5.07
NEWTON	NEWTON	0.0666	Confirmed LTF	0.0666
FARMERCITY	FARMERCITY	0.0035	Confirmed LTF	0.0035
CALDERWOOD	CALDERWOOD	0.0308	Confirmed LTF	0.0308
NY	NY	0.0188	Confirmed LTF	0.0188

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	0.1601	Confirmed LTF	0.1601
O-066	O-066	0.1411	Confirmed LTF	0.1411
CHEOAH	CHEOAH	0.0310	Confirmed LTF	0.0310
EDWARDS	EDWARDS	0.0217	Confirmed LTF	0.0217
TILTON	TILTON	0.0391	Confirmed LTF	0.0391
G-007	G-007	0.0104	Confirmed LTF	0.0104
GIBSON	GIBSON	0.0339	Confirmed LTF	0.0339
BLUEG	BLUEG	0.1076	Confirmed LTF	0.1076
TRIMBLE	TRIMBLE	0.0345	Confirmed LTF	0.0345
CATAWBA	CATAWBA	0.0221	Confirmed LTF	0.0221

11.6.18 Index 18

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
101764553	232233	PRESTON	DP&L	232821	TANYARD	DP&L	1	DPL_P4-2_DP11	breaker	93.0	161.82	177.77	DC	33.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.3036	50/50	0.3036
232405	W1-003 E	0.5112	50/50	0.5112
232406	W1-004 FULL	0.3036	50/50	0.3036
232407	W1-004 E	0.5112	50/50	0.5112
232408	W1-005 C	0.3036	50/50	0.3036
232409	W1-005 E	0.5112	50/50	0.5112
232410	W1-006 C	0.3036	50/50	0.3036
232411	W1-006 E	0.5112	50/50	0.5112
232412	X1-032 E	0.4732	50/50	0.4732
232417	X3-008 C	0.5183	50/50	0.5183
232418	X3-008 E	4.9023	50/50	4.9023
232426	Y1-080 FULL	0.0598	50/50	0.0598
232427	Y1-080 E	0.5688	50/50	0.5688
232428	Y3-058 C	0.1521	50/50	0.1521
232429	Y3-058 E	1.4383	50/50	1.4383
232433	Z2-076 E	0.1512	Adder	0.18
232435	Z2-077 E	0.1512	Adder	0.18
232905	BAYVIEW1	0.2443	50/50	0.2443
232907	VN8	3.9453	50/50	3.9453
232919	VN10	0.3965	50/50	0.3965
232921	TASLEY2G	0.4282	50/50	0.4282
232926	CRISFLD1	0.2061	50/50	0.2061
293670	O-025 C	0.1383	50/50	0.1383
917081	Z2-012 C	0.1486	50/50	0.1486
917082	Z2-012 E	1.4052	50/50	1.4052
918831	AA1-102	0.7727	50/50	0.7727
923282	AB1-137 C	0.2879	Adder	0.34
923283	AB1-137 E	0.1234	Adder	0.15
924681	AB2-120 C OP	3.6460	Adder	4.29
924682	AB2-120 E OP	5.9488	Adder	7.0
924781	AB2-130 C OP	3.8511	50/50	3.8511
924782	AB2-130 E OP	6.2834	50/50	6.2834
924831	AB2-136 C	7.6302	50/50	7.6302
924832	AB2-136 E	8.0917	50/50	8.0917
925151	AB2-172 C OP	7.5117	50/50	7.5117
925152	AB2-172 E OP	12.2559	50/50	12.2559
925261	AB2-180 C	2.1652	50/50	2.1652
925262	AB2-180 E	0.9280	50/50	0.9280
927031	AC1-190 C	13.3011	50/50	13.3011
927032	AC1-190 E	5.7005	50/50	5.7005
927191	AC1-213 C	0.4276	50/50	0.4276
927192	AC1-213 E	0.2806	50/50	0.2806

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930201	AB1-056 C	4.1164	Adder	4.84
930202	AB1-056 E	11.7229	Adder	13.79
930881	AB1-137 C	0.2879	Adder	0.34
930882	AB1-137 E	0.1234	Adder	0.15
932161	AC2-023 C	4.4912	50/50	4.4912
932162	AC2-023 E	3.2710	50/50	3.2710
938651	AE1-087 C	6.3256	50/50	6.3256
938652	AE1-087 E	1.5814	50/50	1.5814
938891	AE1-117 C O1	2.8516	Adder	3.35
938892	AE1-117 E O1	7.5929	Adder	8.93
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.8640	Adder	3.37
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	7.6258	Adder	8.97
939151	AE1-145	1.9210	Adder	2.26
939621	AE1-192 C O1	5.3260	50/50	5.3260
939622	AE1-192 E O1	2.6064	50/50	2.6064
942441	AE2-257 C	2.2451	Adder	2.64
942442	AE2-257 E	5.9190	Adder	6.96
943361	AF1-007 C	0.1214	Adder	0.14
943362	AF1-007 E	0.3452	Adder	0.41
944921	AF1-157 C O1	1.3116	Adder	1.54
944922	AF1-157 E O1	0.8744	Adder	1.03
945661	AF1-231 C	0.7320	Adder	0.86
945662	AF1-231 E	1.0980	Adder	1.29
945781	AF1-243	0.5666	50/50	0.5666
945791	AF1-244	0.9557	50/50	0.9557
945931	AF1-258	0.4949	50/50	0.4949
946041	AF1-269 (Withdrawn : 05/12/2020)	2.9792	50/50	2.9792
957611	AF2-055 C	3.9662	50/50	3.9662
957612	AF2-055 E	1.6998	50/50	1.6998
957661	AF2-060	0.4582	Adder	1.02
957671	AF2-061 O1	2.0363	Adder	4.52
959021	AF2-193 C O1	4.0314	Adder	8.95
959022	AF2-193 E O1	10.8747	Adder	24.14
959031	AF2-194 C O1	4.0314	Adder	8.95
959032	AF2-194 E O1	10.8747	Adder	24.14
959051	AF2-196 C	0.3245	Adder	0.72
959052	AF2-196 E	0.7572	Adder	1.68
959161	AF2-207 C O1	2.5390	50/50	2.5390
959162	AF2-207 E O1	3.8084	50/50	3.8084
959571	AF2-248 C	0.4379	50/50	0.4379
959572	AF2-248 E	0.4894	50/50	0.4894
959581	AF2-249 C	0.0773	50/50	0.0773
959582	AF2-249 E	0.3091	50/50	0.3091
959591	AF2-250 C	0.1417	50/50	0.1417
959592	AF2-250 E	0.1095	50/50	0.1095
960341	AF2-325 C	1.4218	50/50	1.4218
960342	AF2-325 E	1.9635	50/50	1.9635
960671	AF2-358 C O1	15.4410	50/50	15.4410

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960672	AF2-358 E O1	10.2940	50/50	10.2940
960871	AF2-378 C	0.3573	50/50	0.3573
960872	AF2-378 E	0.4957	50/50	0.4957
960881	AF2-379 C	0.2067	50/50	0.2067
960882	AF2-379 E	0.2849	50/50	0.2849
960941	AF2-385 C O1	6.0451	50/50	6.0451
960942	AF2-385 E O1	3.4004	50/50	3.4004
961181	AF2-409 O1	14.9490	50/50	14.9490
NEWTON	NEWTON	0.0752	Confirmed LTF	0.0752
FARMERCITY	FARMERCITY	0.0039	Confirmed LTF	0.0039
CALDERWOOD	CALDERWOOD	0.0348	Confirmed LTF	0.0348
NY	NY	0.0288	Confirmed LTF	0.0288
PRAIRIE	PRAIRIE	0.1808	Confirmed LTF	0.1808
O-066	O-066	0.2890	Confirmed LTF	0.2890
CHEOAH	CHEOAH	0.0350	Confirmed LTF	0.0350
EDWARDS	EDWARDS	0.0245	Confirmed LTF	0.0245
TILTON	TILTON	0.0441	Confirmed LTF	0.0441
G-007	G-007	0.0374	Confirmed LTF	0.0374
GIBSON	GIBSON	0.0382	Confirmed LTF	0.0382
BLUEG	BLUEG	0.1215	Confirmed LTF	0.1215
TRIMBLE	TRIMBLE	0.0390	Confirmed LTF	0.0390
CATAWBA	CATAWBA	0.0245	Confirmed LTF	0.0245

11.6.19 Index 19

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
101764538	232234	TODD	DP&L	232233	PRESTON	DP&L	1	DPL_P4-2_DP11	breaker	93.0	166.77	182.72	DC	33.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.3036	50/50	0.3036
232405	W1-003 E	0.5112	50/50	0.5112
232406	W1-004 FULL	0.3036	50/50	0.3036
232407	W1-004 E	0.5112	50/50	0.5112
232408	W1-005 C	0.3036	50/50	0.3036
232409	W1-005 E	0.5112	50/50	0.5112
232410	W1-006 C	0.3036	50/50	0.3036
232411	W1-006 E	0.5112	50/50	0.5112
232412	X1-032 E	0.4732	50/50	0.4732
232417	X3-008 C	0.5183	50/50	0.5183
232418	X3-008 E	4.9023	50/50	4.9023
232426	Y1-080 FULL	0.0598	50/50	0.0598
232427	Y1-080 E	0.5688	50/50	0.5688
232428	Y3-058 C	0.1521	50/50	0.1521
232429	Y3-058 E	1.4383	50/50	1.4383
232433	Z2-076 E	0.1512	Adder	0.18
232435	Z2-077 E	0.1512	Adder	0.18
232905	BAYVIEW1	0.2443	50/50	0.2443
232907	VN8	3.9453	50/50	3.9453
232919	VN10	0.3965	50/50	0.3965
232921	TASLEY2G	0.4282	50/50	0.4282
232926	CRISFLD1	0.2061	50/50	0.2061
293670	O-025 C	0.1383	50/50	0.1383
917081	Z2-012 C	0.1486	50/50	0.1486
917082	Z2-012 E	1.4052	50/50	1.4052
918831	AA1-102	0.7727	50/50	0.7727
923282	AB1-137 C	0.2879	Adder	0.34
923283	AB1-137 E	0.1234	Adder	0.15
924681	AB2-120 C OP	3.6460	Adder	4.29
924682	AB2-120 E OP	5.9488	Adder	7.0
924781	AB2-130 C OP	3.8511	50/50	3.8511
924782	AB2-130 E OP	6.2834	50/50	6.2834
924831	AB2-136 C	7.6302	50/50	7.6302
924832	AB2-136 E	8.0917	50/50	8.0917
925151	AB2-172 C OP	7.5117	50/50	7.5117
925152	AB2-172 E OP	12.2559	50/50	12.2559
925261	AB2-180 C	2.1652	50/50	2.1652
925262	AB2-180 E	0.9280	50/50	0.9280
927031	AC1-190 C	13.3011	50/50	13.3011
927032	AC1-190 E	5.7005	50/50	5.7005
927191	AC1-213 C	0.4276	50/50	0.4276
927192	AC1-213 E	0.2806	50/50	0.2806

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930201	AB1-056 C	4.1164	Adder	4.84
930202	AB1-056 E	11.7229	Adder	13.79
930881	AB1-137 C	0.2879	Adder	0.34
930882	AB1-137 E	0.1234	Adder	0.15
932161	AC2-023 C	4.4912	50/50	4.4912
932162	AC2-023 E	3.2710	50/50	3.2710
938651	AE1-087 C	6.3256	50/50	6.3256
938652	AE1-087 E	1.5814	50/50	1.5814
938891	AE1-117 C O1	2.8516	Adder	3.35
938892	AE1-117 E O1	7.5929	Adder	8.93
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.8640	Adder	3.37
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	7.6258	Adder	8.97
939151	AE1-145	1.9210	Adder	2.26
939621	AE1-192 C O1	5.3260	50/50	5.3260
939622	AE1-192 E O1	2.6064	50/50	2.6064
942441	AE2-257 C	2.2451	Adder	2.64
942442	AE2-257 E	5.9190	Adder	6.96
943361	AF1-007 C	0.1214	Adder	0.14
943362	AF1-007 E	0.3452	Adder	0.41
944921	AF1-157 C O1	1.3116	Adder	1.54
944922	AF1-157 E O1	0.8744	Adder	1.03
945661	AF1-231 C	0.7320	Adder	0.86
945662	AF1-231 E	1.0980	Adder	1.29
945781	AF1-243	0.5666	50/50	0.5666
945791	AF1-244	0.9557	50/50	0.9557
945931	AF1-258	0.4949	50/50	0.4949
946041	AF1-269 (Withdrawn : 05/12/2020)	2.9792	50/50	2.9792
957611	AF2-055 C	3.9662	50/50	3.9662
957612	AF2-055 E	1.6998	50/50	1.6998
957661	AF2-060	0.4582	Adder	1.02
957671	AF2-061 O1	2.0363	Adder	4.52
959021	AF2-193 C O1	4.0314	Adder	8.95
959022	AF2-193 E O1	10.8747	Adder	24.14
959031	AF2-194 C O1	4.0314	Adder	8.95
959032	AF2-194 E O1	10.8747	Adder	24.14
959051	AF2-196 C	0.3245	Adder	0.72
959052	AF2-196 E	0.7572	Adder	1.68
959161	AF2-207 C O1	2.5390	50/50	2.5390
959162	AF2-207 E O1	3.8084	50/50	3.8084
959571	AF2-248 C	0.4379	50/50	0.4379
959572	AF2-248 E	0.4894	50/50	0.4894
959581	AF2-249 C	0.0773	50/50	0.0773
959582	AF2-249 E	0.3091	50/50	0.3091
959591	AF2-250 C	0.1417	50/50	0.1417
959592	AF2-250 E	0.1095	50/50	0.1095
960341	AF2-325 C	1.4218	50/50	1.4218
960342	AF2-325 E	1.9635	50/50	1.9635
960671	AF2-358 C O1	15.4410	50/50	15.4410

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960672	AF2-358 E O1	10.2940	50/50	10.2940
960871	AF2-378 C	0.3573	50/50	0.3573
960872	AF2-378 E	0.4957	50/50	0.4957
960881	AF2-379 C	0.2067	50/50	0.2067
960882	AF2-379 E	0.2849	50/50	0.2849
960941	AF2-385 C O1	6.0451	50/50	6.0451
960942	AF2-385 E O1	3.4004	50/50	3.4004
961181	AF2-409 O1	14.9490	50/50	14.9490
NEWTON	NEWTON	0.0752	Confirmed LTF	0.0752
FARMERCITY	FARMERCITY	0.0039	Confirmed LTF	0.0039
CALDERWOOD	CALDERWOOD	0.0348	Confirmed LTF	0.0348
NY	NY	0.0288	Confirmed LTF	0.0288
PRAIRIE	PRAIRIE	0.1808	Confirmed LTF	0.1808
O-066	O-066	0.2890	Confirmed LTF	0.2890
CHEOAH	CHEOAH	0.0350	Confirmed LTF	0.0350
EDWARDS	EDWARDS	0.0245	Confirmed LTF	0.0245
TILTON	TILTON	0.0441	Confirmed LTF	0.0441
G-007	G-007	0.0374	Confirmed LTF	0.0374
GIBSON	GIBSON	0.0382	Confirmed LTF	0.0382
BLUEG	BLUEG	0.1215	Confirmed LTF	0.1215
TRIMBLE	TRIMBLE	0.0390	Confirmed LTF	0.0390
CATAWBA	CATAWBA	0.0245	Confirmed LTF	0.0245

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
AA1-034	Peach Bottom 500kV	In Service
AA1-102	Kings Creek-Loretto 138kV	Partially in Service - Under Construction
AA2-069	Cartanza 230kV	Suspended
AB1-000	N/A	N/A
AB1-001	Absecon 12 kV	Engineering and Procurement
AB1-056	Indian River 230kV I	Engineering and Procurement
AB1-063	Locust St. 13kV	Partially in Service - Under Construction
AB1-116	Egg Harbor Road 12kV	In Service
AB1-119	Tansboro Road 12kV	In Service
AB1-137	Frankford 25kV	Engineering and Procurement
AB1-141	Church-Wye Mills 138 kV I	Engineering and Procurement
AB1-142	Church-Wye Mills 138 kV II	Engineering and Procurement
AB1-169A	Minotola 138 kV	Withdrawn
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	Active
AB2-102	Cumberland 230kV	Active
AB2-120	Piney Grove-New Church 138kV	Active
AB2-122	Egg Harbor 12kV	Engineering and Procurement
AB2-130	Laurel 69kV	Active
AB2-133	Chestertown-Church 69kV	Active
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	Active
AB2-175	Peach Bottom 500kV	Partially in Service - Under Construction
AB2-179	Townsend 138kV	Engineering and Procurement
AB2-180	Rockawalkin 69kV	Active
AB2-185	Wye Mills 25kV	Active
AC1-056	PJM-AMIL	Confirmed
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
AC1-131	PJM-CPLE	Confirmed
AC1-190	East New Market 69kV	Active
AC1-213	North Salisbury 25kV	Active

Queue Number	Project Name	Status
AC2-018	Rock Springs 500kV	In Service
AC2-023	Hebron 69kV	Active
AC2-050	Tabernacle 12kV	Active
AC2-185	Cedar Creek 138kV II	Active
AC2-186	Harrington 25kV	Active
AD1-019	Ontario 23 kV	Active
AD1-097	Linwood 230 kV II	Active
AD2-027	Camden Switch 26 kV	In Service
AD2-042	Camden Switch 26 kV II	In Service
AD2-059	Chapel Street 138 kV	Active
AD2-064	Tansboro 12kV	Withdrawn
AD2-065	Berlin 12kV	Engineering and Procurement
AD2-076	Centreville 69 kV	Active
AD2-135	Williamstown 12kV	Active
AD2-167	Rock Springs 500kV	In Service
AE1-061	Minotola 12 kV	Active
AE1-062	Silver Lake 69 kV	Active
AE1-087	Todd 69 kV	Active
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
AE1-118	Bethany-138th Street 138 kV	Withdrawn
AE1-145	Wallops Island 69 kV	Active
AE1-161	Landis 138 kV	Active
AE1-179	South Millville-Newport 69 kV	Active
AE1-192	Belle Haven-Tasley 69 kV	Active
AE1-218	Glassboro 12 kV	Engineering and Procurement
AE1-219	Glassboro 12 kV II	Engineering and Procurement
AE1-229	Deepwater-Upper Pittsgrove 138 kV	Active
AE1-240	Carlls Corner-Sherman Avenue 69 kV	Active
AE2-010	Paper Tap 69 kV	Engineering and Procurement
AE2-020	Cardiff 230 kV I	Active
AE2-021	Cardiff 230 kV II	Active
AE2-022	Cardiff 230 kV III	Active
AE2-061	Rock Springs 500 kV	In Service
AE2-093	Easton-Steele 138 kV	Active
AE2-112	Carville 138 kV	Active
AE2-222	Higbee 69 kV	Active
AE2-251	Cardiff 230 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
AF1-041	Absecon 12.47 kV	In Service
AF1-157	Laurel-Sussex 69 kV	Active
AF1-160	Silver Lake 69 kV	Active
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

Queue Number	Project Name	Status
AF1-243	Tasley 25 kV	Active
AF1-244	Kingston 25 kV	Active
AF1-258	Rockawalkin 69 kV	Active
AF1-259	Price 25 kV	Active
AF1-262	Upper Pittsgrove 12 kV	Active
AF1-269	Airey-Golden Hill 69 kV	Withdrawn
AF2-016	Lewis 138 kV	Active
AF2-019	Rio Grande 69 kV	Active
AF2-020	Carll's Corner 69 kV	Active
AF2-021	Cedar 69 kV	Active
AF2-022	Cumberland 138 kV	Active
AF2-023	Churchtown 69 kV	Active
AF2-024	Mickleton 69 kV	Active
AF2-025	Missouri Ave 69 kV	Active
AF2-026	Sherman Ave 138 kV	Active
AF2-038	Printz 230 kV	Active
AF2-055	Plantation 69 kV	Active
AF2-058	Fairton 12 kV	Active
AF2-060	Wattsville 12 kV	Active
AF2-061	Wattsville 69kV	Active
AF2-109	Church 69 kV	Active
AF2-169	BL England 138 kV	Withdrawn
AF2-172	Whibco 12 kV	Active
AF2-174	Tabernacle 12 kV	Active
AF2-193	Indian River 230 kV I	Active
AF2-194	Indian River 230 kV II	Active
AF2-196	Cedar Neck 69 kV II	Active
AF2-202	Landis 12 V	Active
AF2-207	Nelson 69 kV	Active
AF2-208	Colora 230 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	Active
AF2-385	Nelson 69 kV	Active
AF2-387	Hillsboro 138 kV	Active
AF2-409	Vienna 138 kV	Active
V2-035	Pittsgrove	In Service
V2-041	Clayville 12kV	In Service
V2-046	Piles Grove Township 12kV	In Service
V4-054	Fairfield Township 12kV	In Service
V4-067	Cates Road Egg Harbor Township 12kV	In Service
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
W1-130	Vine Road 12kV	In Service

Queue Number	Project Name	Status
W2-030	Egg Harbor Township	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
X4-027	Linwood 230kV	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
Z2-012	Weirwood-Eastville 69kV	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 213750 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 \$ DELCO \$ 220-84 \$ L END
DPL_P4-2_DP25B	CONTINGENCY 'DPL_P4-2_DP25B' /*CEDAR CREEK 230 BUS BREAKER TO MILFORD DISCONNECT BRANCH FROM BUS 232002 TO BUS 232004 CKT 1 /*CEDAR CK MILFORD 230 230 DISCONNECT BRANCH FROM BUS 232002 TO BUS 232108 CKT 1 /*CEDAR CK CEDAR CK 230 138 AT20 END
DPL_P1_2_CKT 13713	CONTINGENCY 'DPL_P1_2_CKT 13713' OPEN LINE FROM BUS 232129 TO BUS 232127 CIRCUIT 1 /KINGS CREEK - LORETTO 138 END
PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	CONTINGENCY 'PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ CHICH045 \$ STBK DISCONNECT BUS 213627 /* FOULK8 230.00 \$ DELCO \$ CHICH045 \$ STBK END
DPL_P7_1_DBL_1NCB_FSA-A	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA-A' /* #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
DPL_P2_1_CKT 13714-1	CONTINGENCY 'DPL_P2_1_CKT 13714-1' OPEN LINE FROM BUS 232130 TO BUS 232807 CIRCUIT 1 / POCOMOKE - COSTEN 138 END
DPL_P4-2_DP11	CONTINGENCY 'DPL_P4-2_DP11' /*STEELE BUS BREAKER TO MILFORD DISCONNECT BRANCH FROM BUS 232004 TO BUS 232000 CKT 1 /*MILFORD STEELE 230 230 DISCONNECT BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 /*STEELE VIENNA 230 230 END

Contingency Name	Contingency Definition
DPL_P4-2_DP15	CONTINGENCY 'DPL_P4-2_DP15' /*INDIAN RIVER BUS BREAKER TO PINEY GROVE DISCONNECT BRANCH FROM BUS 232007 TO BUS 232006 CKT 1 /*PINEY GR INDRIV 4 230 230 DISCONNECT BRANCH FROM BUS 232007 TO BUS 232128 CKT 1 /*PINEY GR PINEY GR 230 138 DISCONNECT BRANCH FROM BUS 232006 TO BUS 232004 CKT 1 /*MILFORD INDIAN RIVER 230 230 END
PECO_P1-2_220-04/* \$ DELCO \$ 220-04 \$ L	CONTINGENCY 'PECO_P1-2_220-04/* \$ DELCO \$ 220-04 \$ L' DISCONNECT BUS 213627 /* CHICHST1 230.00 FOULK8 230.00 \$ DELCO \$ 220-04 \$ L END
PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L' TRIP BRANCH FROM BUS 200064 TO BUS 200004 CKT 1 /* PCHBTM1S 500.00 CNASTONE 500.00 \$ CHESCO \$ 5012 \$ L END
CKT 23030B	CONTINGENCY 'CKT 23030B' OPEN LINE FROM BUS 232002 TO BUS 232013 CIRCUIT 1 /*CEDAR CREEK - SILVER RUN 230 END
CKT 23032B	CONTINGENCY 'CKT 23032B' OPEN LINE FROM BUS 232013 TO BUS 232003 CIRCUIT 1 /*SILVER RUN - CARTANZA 230 END
PECO_P1-2_5038/* \$ CHESCO \$ 5038 \$ L	CONTINGENCY 'PECO_P1-2_5038/* \$ CHESCO \$ 5038 \$ L' TRIP BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 /* NFREEDOM 500.00 WINDSOR 500.00 \$ CHESCO \$ 5038 \$ L END
PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	CONTINGENCY 'PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L' TRIP BRANCH FROM BUS 214221 TO BUS 213750 CKT 1 /* CHIREACT_43 230.00 LINWOOD 230.00 \$ DELCO \$ 220-43 \$ L END
PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	CONTINGENCY 'PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PEACH215 \$ STBK REMOVE MACHINE 1 FROM BUS 200034 /* PCHBTM 2 22.00 \$ CHESCO \$ PEACH215 \$ STBK END

Contingency Name	Contingency Definition
PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	CONTINGENCY 'PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ CHI230B1 \$ B END
PJM500_PS_P2-3_NFRD5_910	CONTINGENCY 'PJM500_PS_P2-3_NFRD5_910' DISCONNECT BRANCH FROM BUS 200012 TO BUS 219100 CKT 4 /* 500/230 KV TX NEW FREED TRIP LINE FROM BUS 200012 TO BUS 200028 CKT 1 /* 5038 NEW FREEDOM TO WINSOR END
PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ 5014 \$ L END
Base Case	
PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L	CONTINGENCY 'PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L' TRIP BRANCH FROM BUS 213750 TO BUS 214216 CKT 1 /* LINWOOD 230.00 POST 230.00 \$ DELCO \$ 220-97 \$ L END
DPL_P1_2_CKT 23015	CONTINGENCY 'DPL_P1_2_CKT 23015' OPEN LINE FROM BUS 231000 TO BUS 231001 CIRCUIT 1 /CLAYMONT - EDGE MOOR 230 END
DPL_P4-2_DP24	CONTINGENCY 'DPL_P4-2_DP24' /*CEDAR CREEK BUS BREAKER TO SILVER RUN DISCONNECT BRANCH FROM BUS 232013 TO BUS 232002 CKT 1 /*SILVER RUN CEDAR CK 230 230 DISCONNECT BRANCH FROM BUS 232002 TO BUS 232108 CKT 1 /*CEDAR CK CEDAR CK 230 138 AT20 END
PECO_P4_PEACH205/* \$ CHESCO \$ PEACH205 \$ STBK	CONTINGENCY 'PECO_P4_PEACH205/* \$ CHESCO \$ PEACH205 \$ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200066 CKT 1 /* PCHBTM2S 500.00 PCHBTM1N 500.00 \$ CHESCO \$ PEACH205 \$ STBK TRIP BRANCH FROM BUS 200064 TO BUS 200065 CKT Z1 /* PCHBTM1S 500.00 PCHBTM2S 500.00 \$ CHESCO \$ PEACH205 \$ STBK TRIP BRANCH FROM BUS 200013 TO BUS 200066 CKT Z1 /* PCHBTM2N 500.00 PCHBTM1N 500.00 \$ CHESCO \$ PEACH205 \$ STBK TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PEACH205 \$ STBK END

Contingency Name	Contingency Definition
DPL_P4-2_DP23	CONTINGENCY 'DPL_P4-2_DP23' /*CEDAR CREEK BUS BREAKER TO SILVER RUN DISCONNECT BRANCH FROM BUS 232002 TO BUS 232013 CKT 1 /*CEDAR CK SILVER RUN 230 230 DISCONNECT BRANCH FROM BUS 232002 TO BUS 232004 CKT 1 /*CEDAR CK MILFORD 230 230 END
DPL_P1_2_CKT 23034	CONTINGENCY 'DPL_P1_2_CKT 23034' OPEN LINE FROM BUS 232006 TO BUS 232004 CIRCUIT 1 /INDIAN RIVER - MILFORD 230 END
PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK	CONTINGENCY 'PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 \$ DELCO \$ LINWO225 \$ STBK DISCONNECT BUS 213892 /* PHLISL87 230.00 \$ DELCO \$ LINWO225 \$ STBK DISCONNECT BUS 213888 /* PHLISCT1 18.00 \$ DELCO \$ LINWO225 \$ STBK DISCONNECT BUS 213889 /* PHLISCT2 18.00 \$ DELCO \$ LINWO225 \$ STBK END
PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 \$ DELCO \$ 220-85 \$ L END
DPL_P1_2_CKT 13787	CONTINGENCY 'DPL_P1_2_CKT 13787' OPEN LINE FROM BUS 232132 TO BUS 232130 CIRCUIT 1 /OAK HALL - POCOMOKE 138 END
PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	CONTINGENCY 'PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L' TRIP BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 /* PCHBTM1N 500.00 FUR RUN_500 500.00 \$ CHESCO \$ 5007_S \$ L END

12 Short Circuit Analysis - Primary POI

Short circuit will be studied in the System Impact Study phase.

13 Secondary Point of Interconnection

AF2-193 will have a secondary point of interconnection with the DPL transmission system at the Milford 230 kV substation.

14 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AF2-193 was evaluated as a 440.0 MW (Capacity 119.0 MW) injection at the Milford 230 kV substation in the DPL area. Project AF2-193 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-193 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

14.1 Generation Deliverability

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

None

14.2 Multiple Facility Contingency

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

None

14.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
99336393	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PJM	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	135.12	138.69	DC	225.14
99337038	200064	PCHBTM1S	500.0	PJM	200004	CNASTONE	500.0	PJM	1	PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	single	3525.0	104.77	106.21	DC	49.85
99337054	200066	PCHBTM1N	500.0	PJM	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	single	3525.0	101.5	102.82	DC	45.67
100074083	219100	NEWFRDM	230.0	PSE&G	219704	HILLTOP_3	230.0	PSE&G	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	886.0	114.54	116.35	DC	34.89
100073960	231000	CLAY_230	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	140.87	144.48	DC	63.35
100074307	231000	CLAY_230	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	108.9	109.88	DC	17.2
100073973	231001	EDGE MR5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	136.49	139.76	DC	57.4
100074324	231001	EDGE MR5	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-84	single	804.0	107.78	108.73	DC	16.72
100074325	231001	EDGE MR5	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	DPL_P1_2_CKT 23015	single	804.0	107.75	108.64	DC	15.56

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
100074333	231001	EDGE MRS	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	108.31	109.2	DC	15.58
101764710	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	378.0	103.88	108.73	DC	40.71
101764711	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P4_PEACH205/* \$ CHESCO \$ PEACH205 \$ STBK	breaker	378.0	101.87	106.72	DC	40.72
99336330	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP25B	breaker	804.0	108.42	130.32	DC	175.86
99336331	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP23	breaker	804.0	108.29	130.19	DC	175.86
99336332	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP24	breaker	804.0	108.28	130.18	DC	175.86
101765802	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	104.86	114.49	DC	75.1
101765808	232106	MIDLTNT P	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	100.74	110.37	DC	75.1
101765792	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNT P	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	110.05	119.68	DC	75.1
101764696	232215	KENT	69.0	DP&L	232812	NMERED TH	69.0	DP&L	1	DPL_P4-2_DP11	breaker	93.0	101.19	112.76	DC	23.8

14.4 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 LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
99336915	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PJM	1	PECO_P1-2_5038/* \$ CHESCO \$ 5038 \$ L	operation	2905.0	133.73	137.27	DC	223.37
99337037	200064	PCHBTM1S	500.0	PJM	200004	CNASTONE	500.0	PJM	1	PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	operation	3525.0	113.65	116.1	DC	184.31
99337053	200066	PCHBTM1N	500.0	PJM	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	operation	3525.0	109.6	111.85	DC	168.85

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
100074496	213489	CHICHST1	230.0	PECO	213588	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ 220-04 \$ L	operation	1078.0	103.91	105.91	DC	46.57
100074488	213750	LINWOOD	230.0	PECO	214221	CHIREACT_43	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L	operation	1770.0	105.42	107.16	DC	66.01
100074494	213750	LINWOOD	230.0	PECO	214216	POST	230.0	PECO	1	PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	operation	1770.0	105.38	107.11	DC	65.75
100074508	214216	POST	230.0	PECO	214220	CHIREACT_39	230.0	PECO	1	PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	operation	1770.0	101.05	102.78	DC	65.75
100074509	214220	CHIREACT_39	230.0	PECO	213490	CHICHST2	230.0	PECO	1	PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	operation	1770.0	101.01	102.75	DC	65.75
100074491	214221	CHIREACT_43	230.0	PECO	213489	CHICHST1	230.0	PECO	1	PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L	operation	1770.0	105.38	107.12	DC	66.01
100074455	219100	NEWFRDM	230.0	PSE&G	219704	HILLTOP_3	230.0	PSE&G	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	886.0	113.6	115.41	DC	34.89
100074306	231000	CLAY_230	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	131.66	135.29	DC	63.59
100074322	231001	EDGE MR 5	230.0	DP&L	213750	LINWOOD	230.0	PECO	1	PECO_P1-2_220-84	operation	804.0	129.91	133.44	DC	61.82
100074332	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	128.02	131.3	DC	57.61
101765156	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	378.0	101.85	106.69	DC	40.71
99336736	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	679.0	110.79	139.56	DC	195.12
99336737	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	551.0	79.91	104.43	DC	136.58
99336835	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23030B	operation	804.0	108.77	130.31	DC	175.3
99336836	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	103.63	121.4	DC	115.32
100074247	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	110.24	144.57	DC	188.72

14.5 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".

14.5.1 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
99336393	200051	ROCKSPGS	PJM	200065	PCHBTM2S	PJM	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	135.12	138.69	DC	225.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200052	ROCKSP 1	16.6890	50/50	16.6890
200053	ROCKSP 2	16.6890	50/50	16.6890
200054	ROCKSP 3	16.8421	50/50	16.8421
200055	ROCKSP 4	16.8421	50/50	16.8421
200062	SALEM G3	16.2247	Adder	19.09
227928	V4-067E	0.4406	Adder	0.52
228102	BLE#2 ST (Deactivation : 30/04/2019)	42.5055	Adder	50.01
228261	V4-054E	1.7764	Adder	2.09
228334	MANNMILG	2.3111	Adder	2.72
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.4777	Adder	0.56
228357	V2-046E	3.5420	Adder	4.17
228712	V2-041E	0.7384	Adder	0.87
228721	V2-035E	0.3430	Adder	0.4
228733	AB1-119 E	0.2013	Adder	0.24
231708	CHRIST3	3.9092	Adder	4.6
231903	GEN4	4.5764	Adder	5.38
231904	DC1 NUG	11.8569	Adder	13.95
231905	DC2 NUG	11.8569	Adder	13.95
231911	HR5	11.3695	50/50	11.3695
231912	HR6	11.3695	50/50	11.3695
231913	HR7	11.3695	50/50	11.3695
231914	HR8	17.2816	50/50	17.2816
232003	CARTANZA	27.4782	50/50	27.4782
232405	W1-003 E	1.9515	Adder	2.3
232407	W1-004 E	1.9515	Adder	2.3
232409	W1-005 E	1.9515	Adder	2.3
232411	W1-006 E	1.9515	Adder	2.3
232412	X1-032 E	1.7334	Adder	2.04
232418	X3-008 E	5.3366	Adder	6.28
232423	X3-066 E	1.5503	Adder	1.82
232425	Y1-079 E	2.6117	Adder	3.07
232427	Y1-080 E	0.9063	Adder	1.07
232429	Y3-058 E	4.0261	Adder	4.74
232433	Z2-076 E	0.8725	Adder	1.03
232435	Z2-077 E	0.8725	Adder	1.03
232436	AB1-176 C	0.6293	Adder	0.74
232922	MR3 (Deactivation : 01/06/2021)	44.6678	Adder	52.55
902092	W1-130E	1.5601	Adder	1.84
902432	W2-030 E	1.6428	Adder	1.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
913271	Y1-065 C	132.2819	50/50	132.2819
917082	Z2-012 E	5.3751	Adder	6.32
919831	AA2-069 (Suspended)	197.5019	Adder	232.36
923153	AB1-116 E	0.2133	Adder	0.25
923282	AB1-137 C	1.8237	Adder	2.15
923283	AB1-137 E	0.7816	Adder	0.92
923322	AB1-141 C OP	5.6214	Adder	6.61
923323	AB1-141 E OP	2.6233	Adder	3.09
923332	AB1-142 C OP	5.6214	Adder	6.61
923532	AB1-169AC	150.5350	Adder	177.1
923603	AB1-176 E	1.0377	Adder	1.22
923921	AB2-032 C	5.6630	Adder	6.66
923922	AB2-032 E	2.6649	Adder	3.14
923951	AB2-036 C	14.7305	Adder	17.33
923952	AB2-036 E	24.1005	Adder	28.35
923961	AB2-037 C	33.1367	Adder	38.98
923962	AB2-037 E	54.1333	Adder	63.69
924051	AB2-049 C	1.0480	Adder	1.23
924052	AB2-049 E	1.7099	Adder	2.01
924531	AB2-102 C	68.4675	Adder	80.55
924532	AB2-102 E	1.5215	Adder	1.79
924681	AB2-120 C OP	16.4727	Adder	19.38
924682	AB2-120 E OP	26.8765	Adder	31.62
924701	AB2-122 C	0.1904	Adder	0.22
924702	AB2-122 E	0.3264	Adder	0.38
924781	AB2-130 C OP	13.9977	Adder	16.47
924782	AB2-130 E OP	22.8383	Adder	26.87
924801	AB2-133 C OP	10.1386	Adder	11.93
924802	AB2-133 E OP	12.8588	Adder	15.13
924821	AB2-135 C	12.4478	Adder	14.64
924822	AB2-135 E	14.1963	Adder	16.7
924831	AB2-136 C	10.6939	Adder	12.58
924832	AB2-136 E	11.3407	Adder	13.34
924971	AB2-153 C	3.1646	Adder	3.72
924972	AB2-153 E	5.1633	Adder	6.07
925151	AB2-172 C OP	8.1771	Adder	9.62
925152	AB2-172 E OP	13.3415	Adder	15.7
925251	AB2-179 C OP	14.7173	Adder	17.31
925252	AB2-179 E OP	4.8536	Adder	5.71
925261	AB2-180 C	6.0608	Adder	7.13
925262	AB2-180 E	2.5975	Adder	3.06
925271	AB2-185 C OP	5.8973	Adder	6.94
925272	AB2-185 E OP	2.5274	Adder	2.97
926131	AC1-091 C	3.2822	Adder	3.86
926132	AC1-091 E	5.3828	Adder	6.33
926141	AC1-092 C	3.2822	Adder	3.86
926142	AC1-092 E	5.3828	Adder	6.33
926151	AC1-093 C	3.1071	Adder	3.66
926152	AC1-093 E	5.1202	Adder	6.02
926161	AC1-094 C	2.6257	Adder	3.09
926162	AC1-094 E	4.3325	Adder	5.1
927031	AC1-190 C	15.0684	Adder	17.73

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927032	AC1-190 E	6.4579	Adder	7.6
927191	AC1-213 C	1.3862	Adder	1.63
927192	AC1-213 E	0.9097	Adder	1.07
930201	AB1-056 C	27.9738	Adder	32.91
930202	AB1-056 E	79.6645	Adder	93.72
930881	AB1-137 C	1.8237	Adder	2.15
930882	AB1-137 E	0.7816	Adder	0.92
930932	AB1-142 E OP	2.6233	Adder	3.09
932081	AC2-018 C1	0.5629	50/50	0.5629
932082	AC2-018 E1	21.2116	50/50	21.2116
932091	AC2-018 C2	0.5629	50/50	0.5629
932092	AC2-018 E2	21.2116	50/50	21.2116
932161	AC2-023 C	11.4670	Adder	13.49
932162	AC2-023 E	8.3515	Adder	9.83
933631	AC2-185 C	6.6519	Adder	7.83
933632	AC2-185 E	10.8530	Adder	12.77
933641	AC2-186 C	8.2210	Adder	9.67
933642	AC2-186 E	13.4132	Adder	15.78
933962	AD1-019 E	2.0666	Adder	2.43
936451	AD2-059 C	0.0915	Adder	0.11
936452	AD2-059 E	0.2872	Adder	0.34
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.1461	Adder	0.17
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.2013	Adder	0.24
936501	AD2-065 C	0.2923	Adder	0.34
936502	AD2-065 E	0.4032	Adder	0.47
936611	AD2-076 C O1	7.7313	Adder	9.1
936612	AD2-076 E O1	12.6143	Adder	14.84
937011	AD2-135 C	0.1697	Adder	0.2
937012	AD2-135 E	0.2885	Adder	0.34
937281	AD2-167	7.3177	50/50	7.3177
938421	AE1-061 C	0.7527	Adder	0.89
938422	AE1-061 E	0.7527	Adder	0.89
938431	AE1-062 C	2.7281	Adder	3.21
938432	AE1-062 E	2.7281	Adder	3.21
938651	AE1-087 C	6.8860	Adder	8.1
938652	AE1-087 E	1.7215	Adder	2.03
938781	AE1-104 C O1	34.3096	Adder	40.36
938782	AE1-104 E O1	87.7807	Adder	103.27
938811	AE1-107 C	12.1342	Adder	14.28
938812	AE1-107 E	8.6505	Adder	10.18
938871	AE1-115 C	2.7742	Adder	3.26
938872	AE1-115 E	2.7742	Adder	3.26
938891	AE1-117 C O1	18.0199	Adder	21.2
938892	AE1-117 E O1	47.9806	Adder	56.45
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	18.0195	Adder	21.2
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	47.9797	Adder	56.45
939151	AE1-145	8.6698	Adder	10.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939301	AE1-161 C	5.4777	Adder	6.44
939302	AE1-161 E	8.2166	Adder	9.67
939501	AE1-179 C O1	10.1819	Adder	11.98
939502	AE1-179 E O1	7.1855	Adder	8.45
939621	AE1-192 C O1	20.3733	Adder	23.97
939622	AE1-192 E O1	9.9699	Adder	11.73
939821	AE1-218 C O1	0.2175	Adder	0.26
939822	AE1-218 E O1	0.3262	Adder	0.38
939831	AE1-219 C O1	0.4893	Adder	0.58
939832	AE1-219 E O1	0.7068	Adder	0.83
939931	AE1-229 C O1	24.8457	Adder	29.23
939932	AE1-229 E O1	16.8337	Adder	19.8
940001	AE1-240 C O1	8.4379	Adder	9.93
940002	AE1-240 E O1	6.0229	Adder	7.09
940361	AE2-020 C	28.7011	Adder	33.77
940362	AE2-020 E	134.3805	Adder	158.09
940371	AE2-021 C	28.7011	Adder	33.77
940372	AE2-021 E	134.3805	Adder	158.09
940381	AE2-022 C	16.7423	Adder	19.7
940382	AE2-022 E	78.3886	Adder	92.22
940741	AE2-061	0.9851	50/50	0.9851
941021	AE2-093 C	8.4185	Adder	9.9
941022	AE2-093 E	13.3757	Adder	15.74
941181	AE2-112 C	2.6823	Adder	3.16
941182	AE2-112 E	4.3764	Adder	5.15
942101	AE2-222 C O1	23.1841	Adder	27.28
942102	AE2-222 E O1	58.2399	Adder	68.52
942381	AE2-251 C	90.9245	Adder	106.97
942382	AE2-251 E	232.6501	Adder	273.71
942441	AE2-257 C	14.3299	Adder	16.86
942442	AE2-257 E	37.7788	Adder	44.45
943071	AE2-334 C	7.8723	Adder	9.26
943072	AE2-334 E	4.1967	Adder	4.94
943361	AF1-007 C	0.8253	Adder	0.97
943362	AF1-007 E	2.3456	Adder	2.76
943441	AF1-015 C	2.6922	Adder	3.17
943442	AF1-015 E	3.7178	Adder	4.37
943651	AF1-036 C	3.4878	Adder	4.1
943652	AF1-036 E	4.8165	Adder	5.67
943732	AF1-041 E	0.6506	Adder	0.77
944921	AF1-157 C O1	6.5061	Adder	7.65
944922	AF1-157 E O1	4.3374	Adder	5.1
944951	AF1-160 C	2.7281	Adder	3.21
944952	AF1-160 E	2.8645	Adder	3.37
945431	AF1-208 C O1	7.6664	Adder	9.02
945432	AF1-208 E O1	5.1110	Adder	6.01
945661	AF1-231 C	3.2944	Adder	3.88
945662	AF1-231 E	4.9416	Adder	5.81
945731	AF1-238 C	14.9050	Adder	17.54
945732	AF1-238 E	22.3575	Adder	26.3
945741	AF1-239 C	3.5071	Adder	4.13
945742	AF1-239 E	5.2606	Adder	6.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945781	AF1-243	2.1674	Adder	2.55
945791	AF1-244	3.4666	Adder	4.08
945931	AF1-258	1.3853	Adder	1.63
945941	AF1-259	0.3334	Adder	0.39
945971	AF1-262	0.2490	Adder	0.29
946041	AF1-269 (Withdrawn : 05/12/2020)	4.7471	Adder	5.58
957221	AF2-016 C	17.3652	Adder	38.55
957222	AF2-016 E	26.0477	Adder	57.82
957251	AF2-019 C	2.4710	Adder	5.49
957252	AF2-019 E	3.7066	Adder	8.23
957261	AF2-020 C	1.2145	Adder	2.7
957262	AF2-020 E	1.8218	Adder	4.04
957281	AF2-022 C	3.1768	Adder	7.05
957282	AF2-022 E	4.7653	Adder	10.58
957291	AF2-023 C O2	2.9847	Adder	6.63
957292	AF2-023 E O2	4.4770	Adder	9.94
957311	AF2-025 C	1.1550	Adder	2.56
957312	AF2-025 E	1.7325	Adder	3.85
957321	AF2-026 C	1.8860	Adder	4.19
957322	AF2-026 E	2.8291	Adder	6.28
957611	AF2-055 C	8.0410	Adder	17.85
957612	AF2-055 E	3.4461	Adder	7.65
957641	AF2-058	0.3796	Adder	0.84
957661	AF2-060	2.0678	Adder	4.59
957671	AF2-061 O2	9.1902	Adder	20.4
958151	AF2-109 C	2.1843	Adder	4.85
958152	AF2-109 E	2.1843	Adder	4.85
958781	AF2-169 C O2 (Withdrawn : 06/09/2020)	0.6574	Adder	1.46
958782	AF2-169 E O2 (Withdrawn : 06/09/2020)	78.2301	Adder	173.65
958811	AF2-172 C	0.5819	Adder	1.29
958812	AF2-172 E	0.9494	Adder	2.11
959021	AF2-193 C O2	27.4309	Adder	60.89
959022	AF2-193 E O2	73.9943	Adder	164.25
959031	AF2-194 C O2	27.4309	Adder	60.89
959032	AF2-194 E O2	73.9943	Adder	164.25
959051	AF2-196 C	2.0713	Adder	4.6
959052	AF2-196 E	4.8331	Adder	10.73
959111	AF2-202 C	0.1731	Adder	0.38
959112	AF2-202 E	0.2369	Adder	0.53
959161	AF2-207 C O2	4.6285	Adder	10.27
959162	AF2-207 E O2	6.9428	Adder	15.41
959571	AF2-248 C	0.7807	Adder	1.73
959572	AF2-248 E	0.8725	Adder	1.94
959581	AF2-249 C	0.1378	Adder	0.31
959582	AF2-249 E	0.5511	Adder	1.22
959591	AF2-250 C	0.2526	Adder	0.56
959592	AF2-250 E	0.1952	Adder	0.43
960221	AF2-313 C	2.8051	Adder	6.23
960222	AF2-313 E	1.5903	Adder	3.53

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960341	AF2-325 C	0.9592	Adder	2.13
960342	AF2-325 E	1.3246	Adder	2.94
960671	AF2-358 C O2	13.6969	Adder	30.4
960672	AF2-358 E O2	9.1313	Adder	20.27
960871	AF2-378 C	0.2536	Adder	0.56
960872	AF2-378 E	0.3518	Adder	0.78
960881	AF2-379 C	0.3766	Adder	0.84
960882	AF2-379 E	0.5189	Adder	1.15
960941	AF2-385 C O2	10.9758	Adder	24.36
960942	AF2-385 E O2	6.2457	Adder	13.86
960961	AF2-387 C O2	15.0109	Adder	33.32
960962	AF2-387 E O2	7.5280	Adder	16.71
961181	AF2-409 O2	22.8935	Adder	50.82
999905	MARINGEN 2	1.0891	Adder	1.28
999906	PVILLEG 2	0.4607	Adder	0.54
NEWTON	NEWTON	5.7851	Confirmed LTF	5.7851
FARMERCITY	FARMERCITY	0.3024	Confirmed LTF	0.3024
G-007A	G-007A	25.6916	Confirmed LTF	25.6916
VFT	VFT	55.8505	Confirmed LTF	55.8505
CALDERWOOD	CALDERWOOD	2.7509	Confirmed LTF	2.7509
PRAIRIE	PRAIRIE	13.9689	Confirmed LTF	13.9689
CHEOAH	CHEOAH	2.7728	Confirmed LTF	2.7728
EDWARDS	EDWARDS	1.8767	Confirmed LTF	1.8767
TILTON	TILTON	3.3793	Confirmed LTF	3.3793
GIBSON	GIBSON	2.9358	Confirmed LTF	2.9358
BLUEG	BLUEG	9.3362	Confirmed LTF	9.3362
TRIMBLE	TRIMBLE	2.9917	Confirmed LTF	2.9917
CATAWBA	CATAWBA	1.9831	Confirmed LTF	1.9831

14.5.2 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
99337038	200064	PCHBTM1S	PJM	200004	CNASTONE	PJM	1	PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	single	3525.0	104.77	106.21	DC	49.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	126.2144	80/20	126.2144
200035	PCHBTM 3	125.5694	80/20	125.5694
200052	ROCKSP 1	11.1099	80/20	11.1099
200053	ROCKSP 2	11.1099	80/20	11.1099
200054	ROCKSP 3	11.2119	80/20	11.2119
200055	ROCKSP 4	11.2119	80/20	11.2119
200192	DELTA CT1	12.3143	80/20	12.3143
200193	DELTA CT2	12.3143	80/20	12.3143
200194	DELTA CT3	12.3143	80/20	12.3143
200195	DELTA ST	19.0133	80/20	19.0133
213792	MDYRN1-2	23.7984	80/20	23.7984
213793	MDYRN3-4	23.8875	80/20	23.8875
213794	MDYRN5-6	23.8168	80/20	23.8168
213795	MDYRN7-8	23.9060	80/20	23.9060
231903	GEN4	3.8566	Adder	4.54
231904	DC1 NUG	9.9921	Adder	11.76
231905	DC2 NUG	9.9921	Adder	11.76
231911	HR5	9.1624	80/20	9.1624
231912	HR6	9.1624	80/20	9.1624
231913	HR7	9.1624	80/20	9.1624
231914	HR8	13.9269	80/20	13.9269
232003	CARTANZA	22.3660	80/20	22.3660
232436	AB1-176 C	0.5283	Adder	0.62
232616	GEN FOOD	1.0995	80/20	1.0995
232901	NORTHST	3.3274	80/20	3.3274
232904	IR4	29.8981	80/20	29.8981
232922	MR3 (Deactivation : 01/06/2021)	42.7737	80/20	42.7737
913271	Y1-065 C	88.0604	80/20	88.0604
915191	DELTA2	74.8710	80/20	74.8710
918191	AA1-034 C	6.8960	80/20	6.8960
919831	AA2-069 (Suspended)	189.1269	80/20	189.1269
923282	AB1-137 C	1.4949	Adder	1.76
923322	AB1-141 C OP	4.7220	Adder	5.56
923332	AB1-142 C OP	4.7220	Adder	5.56
923921	AB2-032 C	4.7569	Adder	5.6
923951	AB2-036 C	12.2881	Adder	14.46
923961	AB2-037 C	32.1565	80/20	32.1565
924681	AB2-120 C OP	13.5221	Adder	15.91
924781	AB2-130 C OP	11.4894	Adder	13.52
924801	AB2-133 C OP	8.5595	Adder	10.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924821	AB2-135 C	10.4458	Adder	12.29
924831	AB2-136 C	8.8102	Adder	10.36
924971	AB2-153 C	2.6583	Adder	3.13
925151	AB2-172 C OP	6.7447	Adder	7.93
925191	AB2-175 1	2.1609	80/20	2.1609
925201	AB2-175 2	2.1498	80/20	2.1498
925251	AB2-179 C OP	12.7798	Adder	15.04
925261	AB2-180 C	4.9798	Adder	5.86
925271	AB2-185 C OP	4.9240	Adder	5.79
926131	AC1-091 C	3.1424	80/20	3.1424
926141	AC1-092 C	3.1424	80/20	3.1424
926151	AC1-093 C	2.9748	80/20	2.9748
926161	AC1-094 C	2.5139	80/20	2.5139
927031	AC1-190 C	12.4260	Adder	14.62
927191	AC1-213 C	1.1384	Adder	1.34
930201	AB1-056 C	26.9688	80/20	26.9688
930881	AB1-137 C	1.4949	Adder	1.76
932081	AC2-018 C1	0.3747	80/20	0.3747
932091	AC2-018 C2	0.3747	80/20	0.3747
932161	AC2-023 C	9.4249	Adder	11.09
933631	AC2-185 C	6.3686	80/20	6.3686
933641	AC2-186 C	6.7470	Adder	7.94
936451	AD2-059 C	0.0816	Adder	0.1
936611	AD2-076 C O1	6.5039	Adder	7.65
937281	AD2-167	4.8714	80/20	4.8714
938651	AE1-087 C	5.6798	Adder	6.68
938811	AE1-107 C	10.5479	Adder	12.41
938891	AE1-117 C O1	14.7707	Adder	17.38
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	14.7703	Adder	17.38
939151	AE1-145	7.1169	Adder	8.37
939621	AE1-192 C O1	16.7247	Adder	19.68
940741	AE2-061	0.6558	80/20	0.6558
941021	AE2-093 C	6.9775	Adder	8.21
941181	AE2-112 C	2.2565	Adder	2.65
942441	AE2-257 C	11.7454	Adder	13.82
943361	AF1-007 C	0.7957	80/20	0.7957
943441	AF1-015 C	2.2314	Adder	2.63
943651	AF1-036 C	2.9341	Adder	3.45
944921	AF1-157 C O1	5.3369	Adder	6.28
945661	AF1-231 C	2.7044	Adder	3.18
945781	AF1-243	1.7792	Adder	2.09
945791	AF1-244	2.8466	Adder	3.35
945931	AF1-258	1.1382	Adder	1.34
945941	AF1-259	0.2799	Adder	0.33
946041	AF1-269 (Withdrawn : 05/12/2020)	3.9090	Adder	4.6
957611	AF2-055 C	6.6009	Adder	14.65
957661	AF2-060	1.6974	Adder	3.77
957671	AF2-061 O2	7.5439	Adder	16.75
958151	AF2-109 C	1.8441	Adder	4.09
959021	AF2-193 C O2	49.8479	80/20	49.8479

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959031	AF2-194 C O2	49.8479	80/20	49.8479
959051	AF2-196 C	1.6977	Adder	3.77
959161	AF2-207 C O2	3.8018	Adder	8.44
959571	AF2-248 C	0.6411	Adder	1.42
959581	AF2-249 C	0.1131	Adder	0.25
959591	AF2-250 C	0.2074	Adder	0.46
960221	AF2-313 C	2.3549	Adder	5.23
960341	AF2-325 C	0.7906	Adder	1.75
960671	AF2-358 C O2	11.2918	Adder	25.07
960871	AF2-378 C	0.2090	Adder	0.46
960881	AF2-379 C	0.3093	Adder	0.69
960941	AF2-385 C O2	9.0128	Adder	20.01
960961	AF2-387 C O2	12.4736	Adder	27.69
961181	AF2-409 O2	18.8570	Adder	41.86
NEWTON	NEWTON	11.1426	Confirmed LTF	11.1426
FARMERCITY	FARMERCITY	0.5842	Confirmed LTF	0.5842
G-007A	G-007A	64.8787	Confirmed LTF	64.8787
VFT	VFT	165.2426	Confirmed LTF	165.2426
CALDERWOOD	CALDERWOOD	5.4546	Confirmed LTF	5.4546
PRAIRIE	PRAIRIE	27.0311	Confirmed LTF	27.0311
AC1-131	AC1-131	8.9415	LTF	8.9415
CHEOAH	CHEOAH	5.5020	Confirmed LTF	5.5020
EDWARDS	EDWARDS	3.5984	Confirmed LTF	3.5984
TILTON	TILTON	6.4814	Confirmed LTF	6.4814
GIBSON	GIBSON	5.6473	Confirmed LTF	5.6473
BLUEG	BLUEG	17.9607	Confirmed LTF	17.9607
TRIMBLE	TRIMBLE	5.7537	Confirmed LTF	5.7537
CATAWBA	CATAWBA	4.0257	Confirmed LTF	4.0257
AC1-056	AC1-056	10.3790	LTF	10.3790

14.5.3 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
99337054	200066	PCHBTM1N	PJM	270072	FUR RUN_500	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	single	3525.0	101.5	102.82	DC	45.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200034	PCHBTM 2	123.7030	80/20	123.7030
200035	PCHBTM 3	123.8383	80/20	123.8383
200052	ROCKSP 1	10.7898	80/20	10.7898
200053	ROCKSP 2	10.7898	80/20	10.7898
200054	ROCKSP 3	10.8888	80/20	10.8888
200055	ROCKSP 4	10.8888	80/20	10.8888
200192	DELTA CT1	12.0325	80/20	12.0325
200193	DELTA CT2	12.0325	80/20	12.0325
200194	DELTA CT3	12.0325	80/20	12.0325
200195	DELTA ST	18.5782	80/20	18.5782
213792	MDYRN1-2	23.0993	80/20	23.0993
213793	MDYRN3-4	23.1858	80/20	23.1858
213794	MDYRN5-6	23.1205	80/20	23.1205
213795	MDYRN7-8	23.2070	80/20	23.2070
231708	CHRIST3	3.3255	Adder	3.91
231903	GEN4	3.5267	Adder	4.15
231904	DC1 NUG	9.1374	Adder	10.75
231905	DC2 NUG	9.1374	Adder	10.75
231911	HR5	8.4196	80/20	8.4196
231912	HR6	8.4196	80/20	8.4196
231913	HR7	8.4196	80/20	8.4196
231914	HR8	12.7978	80/20	12.7978
232003	CARTANZA	20.4817	80/20	20.4817
232436	AB1-176 C	0.4833	Adder	0.57
232616	GEN FOOD	1.0069	80/20	1.0069
232901	NORTHST	3.0471	80/20	3.0471
232904	IR4	27.3921	80/20	27.3921
232922	MR3 (Deactivation : 01/06/2021)	39.1700	80/20	39.1700
913271	Y1-065 C	85.5228	80/20	85.5228
915191	DELTA2	73.1576	80/20	73.1576
918191	AA1-034 C	6.7382	80/20	6.7382
919831	AA2-069 (Suspended)	173.1930	80/20	173.1930
923282	AB1-137 C	1.3696	Adder	1.61
923322	AB1-141 C OP	4.3202	Adder	5.08
923332	AB1-142 C OP	4.3202	Adder	5.08
923921	AB2-032 C	4.3522	Adder	5.12
923951	AB2-036 C	11.2516	Adder	13.24
923961	AB2-037 C	29.4927	80/20	29.4927

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C OP	12.3903	Adder	14.58
924781	AB2-130 C OP	10.5265	Adder	12.38
924801	AB2-133 C OP	7.8256	Adder	9.21
924821	AB2-135 C	9.5530	Adder	11.24
924831	AB2-136 C	8.0730	Adder	9.5
924971	AB2-153 C	2.4321	Adder	2.86
925151	AB2-172 C OP	6.1801	Adder	7.27
925191	AB2-175 1	2.1179	80/20	2.1179
925201	AB2-175 2	2.1202	80/20	2.1202
925251	AB2-179 C OP	11.6517	Adder	13.71
925261	AB2-180 C	4.5631	Adder	5.37
925271	AB2-185 C OP	4.5081	Adder	5.3
926131	AC1-091 C	2.4455	Adder	2.88
926141	AC1-092 C	2.4455	Adder	2.88
926151	AC1-093 C	2.3150	Adder	2.72
926161	AC1-094 C	1.9564	Adder	2.3
927031	AC1-190 C	11.3859	Adder	13.4
927191	AC1-213 C	1.0431	Adder	1.23
930201	AB1-056 C	24.7083	80/20	24.7083
930881	AB1-137 C	1.3696	Adder	1.61
932081	AC2-018 C1	0.3639	80/20	0.3639
932091	AC2-018 C2	0.3639	80/20	0.3639
932161	AC2-023 C	8.6363	Adder	10.16
933631	AC2-185 C	4.9561	Adder	5.83
933641	AC2-186 C	6.1790	Adder	7.27
936451	AD2-059 C	0.0742	Adder	0.09
936611	AD2-076 C O1	5.9495	Adder	7.0
937281	AD2-167	4.7310	80/20	4.7310
938651	AE1-087 C	5.2043	Adder	6.12
938811	AE1-107 C	9.6156	Adder	11.31
938891	AE1-117 C O1	13.5325	Adder	15.92
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	13.5325	Adder	15.92
939151	AE1-145	6.5212	Adder	7.67
939621	AE1-192 C O1	15.3248	Adder	18.03
940741	AE2-061	0.6369	80/20	0.6369
941021	AE2-093 C	6.3936	Adder	7.52
941181	AE2-112 C	2.0641	Adder	2.43
942441	AE2-257 C	10.7611	Adder	12.66
943361	AF1-007 C	0.7290	80/20	0.7290
943441	AF1-015 C	2.0446	Adder	2.41
943651	AF1-036 C	2.6840	Adder	3.16
944921	AF1-157 C O1	4.8896	Adder	5.75
945661	AF1-231 C	2.4781	Adder	2.92
945781	AF1-243	1.6303	Adder	1.92
945791	AF1-244	2.6085	Adder	3.07
945931	AF1-258	1.0430	Adder	1.23
945941	AF1-259	0.2561	Adder	0.3
946041	AF1-269 (Withdrawn : 05/12/2020)	3.5819	Adder	4.21
957611	AF2-055 C	6.0484	Adder	13.43
957661	AF2-060	1.5553	Adder	3.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957671	AF2-061 O2	6.9125	Adder	15.34
958151	AF2-109 C	1.6860	Adder	3.74
959021	AF2-193 C O2	45.6674	80/20	45.6674
959031	AF2-194 C O2	45.6674	80/20	45.6674
959051	AF2-196 C	1.5555	Adder	3.45
959161	AF2-207 C O2	3.4837	Adder	7.73
959571	AF2-248 C	0.5874	Adder	1.3
959581	AF2-249 C	0.1037	Adder	0.23
959591	AF2-250 C	0.1900	Adder	0.42
960221	AF2-313 C	2.1544	Adder	4.78
960341	AF2-325 C	0.7244	Adder	1.61
960671	AF2-358 C O2	10.3468	Adder	22.97
960871	AF2-378 C	0.1915	Adder	0.43
960881	AF2-379 C	0.2834	Adder	0.63
960941	AF2-385 C O2	8.2583	Adder	18.33
960961	AF2-387 C O2	11.4268	Adder	25.36
961181	AF2-409 O2	38.3690	80/20	38.3690
NEWTON	NEWTON	9.0054	Confirmed LTF	9.0054
FARMERCITY	FARMERCITY	0.4707	Confirmed LTF	0.4707
G-007A	G-007A	49.0361	Confirmed LTF	49.0361
VFT	VFT	120.9182	Confirmed LTF	120.9182
CALDERWOOD	CALDERWOOD	4.2861	Confirmed LTF	4.2861
PRAIRIE	PRAIRIE	21.7463	Confirmed LTF	21.7463
CHEOAH	CHEOAH	4.3203	Confirmed LTF	4.3203
EDWARDS	EDWARDS	2.9207	Confirmed LTF	2.9207
TILTON	TILTON	5.2592	Confirmed LTF	5.2592
GIBSON	GIBSON	4.5700	Confirmed LTF	4.5700
BLUEG	BLUEG	14.5338	Confirmed LTF	14.5338
TRIMBLE	TRIMBLE	4.6573	Confirmed LTF	4.6573
CATAWBA	CATAWBA	3.0926	Confirmed LTF	3.0926

14.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
100074083	219100	NEWFRDM	PSE&G	219704	HILLTOP_3	PSE&G	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PEACH215 \$ STBK	breaker	886.0	114.54	116.35	DC	34.89

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200036	SALEM-G1 (Deactivation : 01/10/2020)	21.0719	50/50	21.0719
200037	SALEM-G2 (Deactivation : 01/04/2020)	15.2127	50/50	15.2127
200039	HOPE CG1 (Deactivation : 01/10/2019)	15.5887	50/50	15.5887
200062	SALEM G3	4.0685	50/50	4.0685
219727	Z1-082 BAT	0.1757	50/50	0.1757
227928	V4-067E	0.1306	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	11.2768	Adder	13.27
228261	V4-054E	0.3183	Adder	0.37
228712	V2-041E	0.1660	Adder	0.2
228721	V2-035E	0.0669	Adder	0.08
228733	AB1-119 E	0.0886	50/50	0.0886
231903	GEN4	0.6517	Adder	0.77
231904	DC1 NUG	1.6885	Adder	1.99
231905	DC2 NUG	1.6885	Adder	1.99
232405	W1-003 E	0.2977	Adder	0.35
232407	W1-004 E	0.2977	Adder	0.35
232409	W1-005 E	0.2977	Adder	0.35
232411	W1-006 E	0.2977	Adder	0.35
232412	X1-032 E	0.2640	Adder	0.31
232418	X3-008 E	0.7985	Adder	0.94
232423	X3-066 E	0.2235	Adder	0.26
232425	Y1-079 E	0.3787	Adder	0.45
232427	Y1-080 E	0.1364	Adder	0.16
232429	Y3-058 E	0.6118	Adder	0.72
232433	Z2-076 E	0.1341	Adder	0.16
232435	Z2-077 E	0.1341	Adder	0.16
232436	AB1-176 C	0.0907	Adder	0.11
232922	MR3 (Deactivation : 01/06/2021)	7.1519	Adder	8.41
902092	W1-130E	0.3876	Adder	0.46
902432	W2-030 E	0.4704	Adder	0.55
917082	Z2-012 E	0.8200	Adder	0.96
919831	AA2-069 (Suspended)	31.6225	Adder	37.2
923153	AB1-116 E	0.0789	50/50	0.0789
923282	AB1-137 C	0.2808	Adder	0.33
923283	AB1-137 E	0.1203	Adder	0.14
923322	AB1-141 C OP	0.8078	Adder	0.95
923323	AB1-141 E OP	0.3770	Adder	0.44

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923332	AB1-142 C OP	0.8078	Adder	0.95
923532	AB1-169AC	37.4561	Adder	44.07
923603	AB1-176 E	0.1496	Adder	0.18
923921	AB2-032 C	0.8138	Adder	0.96
923922	AB2-032 E	0.3830	Adder	0.45
923951	AB2-036 C	2.1359	Adder	2.51
923952	AB2-036 E	3.4945	Adder	4.11
923961	AB2-037 C	4.8394	Adder	5.69
923962	AB2-037 E	7.9059	Adder	9.3
924051	AB2-049 C	0.4371	50/50	0.4371
924052	AB2-049 E	0.7131	50/50	0.7131
924531	AB2-102 C	15.2082	Adder	17.89
924532	AB2-102 E	0.3380	Adder	0.4
924681	AB2-120 C OP	2.5133	Adder	2.96
924682	AB2-120 E OP	4.1006	Adder	4.82
924701	AB2-122 C	0.0564	Adder	0.07
924702	AB2-122 E	0.0967	Adder	0.11
924781	AB2-130 C OP	2.1420	Adder	2.52
924782	AB2-130 E OP	3.4949	Adder	4.11
924801	AB2-133 C OP	1.4524	Adder	1.71
924802	AB2-133 E OP	1.8421	Adder	2.17
924821	AB2-135 C	1.8167	Adder	2.14
924822	AB2-135 E	2.0718	Adder	2.44
924831	AB2-136 C	1.6065	Adder	1.89
924832	AB2-136 E	1.7037	Adder	2.0
924971	AB2-153 C	0.4548	Adder	0.54
924972	AB2-153 E	0.7420	Adder	0.87
925151	AB2-172 C OP	1.2235	Adder	1.44
925152	AB2-172 E OP	1.9963	Adder	2.35
925251	AB2-179 C OP	1.9975	Adder	2.35
925252	AB2-179 E OP	0.6587	Adder	0.77
925261	AB2-180 C	0.9211	Adder	1.08
925262	AB2-180 E	0.3947	Adder	0.46
925271	AB2-185 C OP	0.8551	Adder	1.01
925272	AB2-185 E OP	0.3665	Adder	0.43
926131	AC1-091 C	0.5287	Adder	0.62
926132	AC1-091 E	0.8671	Adder	1.02
926141	AC1-092 C	0.5287	Adder	0.62
926142	AC1-092 E	0.8671	Adder	1.02
926151	AC1-093 C	0.5005	Adder	0.59
926152	AC1-093 E	0.8248	Adder	0.97
926161	AC1-094 C	0.4230	Adder	0.5
926162	AC1-094 E	0.6979	Adder	0.82
927031	AC1-190 C	2.2562	Adder	2.65
927032	AC1-190 E	0.9670	Adder	1.14
927191	AC1-213 C	0.2112	Adder	0.25
927192	AC1-213 E	0.1386	Adder	0.16
930001	AB1-001 C	0.0652	Adder	0.08
930002	AB1-001 E	0.1071	Adder	0.13
930201	AB1-056 C	4.3130	Adder	5.07
930202	AB1-056 E	12.2826	Adder	14.45
930242	AB1-063 E	-0.0455	Adder	-0.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930881	AB1-137 C	0.2808	Adder	0.33
930882	AB1-137 E	0.1203	Adder	0.14
930932	AB1-142 E OP	0.3770	Adder	0.44
932082	AC2-018 E1	1.9740	Adder	2.32
932092	AC2-018 E2	1.9740	Adder	2.32
932161	AC2-023 C	1.7398	Adder	2.05
932162	AC2-023 E	1.2671	Adder	1.49
932361	AC2-050 C O1	0.2140	Adder	0.25
932362	AC2-050 E O1	0.3491	Adder	0.41
933631	AC2-185 C	1.0716	Adder	1.26
933632	AC2-185 E	1.7484	Adder	2.06
933641	AC2-186 C	1.2718	Adder	1.5
933642	AC2-186 E	2.0751	Adder	2.44
933962	AD1-019 E	0.5944	Adder	0.7
936212	AD2-027 E	-0.5653	Adder	-0.67
936322	AD2-042 E	-0.7476	Adder	-0.88
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0643	50/50	0.0643
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0886	50/50	0.0886
936501	AD2-065 C	0.1240	50/50	0.1240
936502	AD2-065 E	0.1711	50/50	0.1711
936611	AD2-076 C O1	1.1087	Adder	1.3
936612	AD2-076 E O1	1.8089	Adder	2.13
937011	AD2-135 C	0.0845	50/50	0.0845
937012	AD2-135 E	0.1436	50/50	0.1436
938421	AE1-061 C	0.1870	Adder	0.22
938422	AE1-061 E	0.1870	Adder	0.22
938431	AE1-062 C	1.2146	50/50	1.2146
938432	AE1-062 E	1.2146	50/50	1.2146
938651	AE1-087 C	1.0303	Adder	1.21
938652	AE1-087 E	0.2576	Adder	0.3
938781	AE1-104 C O1	9.1024	Adder	10.71
938782	AE1-104 E O1	23.2883	Adder	27.4
938811	AE1-107 C	1.6398	Adder	1.93
938812	AE1-107 E	1.1690	Adder	1.38
938891	AE1-117 C O1	2.7744	Adder	3.26
938892	AE1-117 E O1	7.3872	Adder	8.69
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.7744	Adder	3.26
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	7.3872	Adder	8.69
939151	AE1-145	1.3228	Adder	1.56
939301	AE1-161 C	1.3039	Adder	1.53
939302	AE1-161 E	1.9559	Adder	2.3
939501	AE1-179 C O1	2.1295	Adder	2.51
939502	AE1-179 E O1	1.5028	Adder	1.77
939621	AE1-192 C O1	3.1081	Adder	3.66
939622	AE1-192 E O1	1.5210	Adder	1.79
939821	AE1-218 C O1	0.0603	Adder	0.07
939822	AE1-218 E O1	0.0904	Adder	0.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939831	AE1-219 C O1	0.1356	Adder	0.16
939832	AE1-219 E O1	0.1959	Adder	0.23
940001	AE1-240 C O1	1.7435	Adder	2.05
940002	AE1-240 E O1	1.2445	Adder	1.46
940361	AE2-020 C	8.9289	Adder	10.5
940362	AE2-020 E	41.8057	Adder	49.18
940371	AE2-021 C	8.9289	Adder	10.5
940372	AE2-021 E	41.8057	Adder	49.18
940381	AE2-022 C	5.2085	Adder	6.13
940382	AE2-022 E	24.3866	Adder	28.69
941021	AE2-093 C	1.2333	Adder	1.45
941022	AE2-093 E	1.9595	Adder	2.31
941181	AE2-112 C	0.3846	Adder	0.45
941182	AE2-112 E	0.6276	Adder	0.74
942101	AE2-222 C O1	6.6755	Adder	7.85
942102	AE2-222 E O1	16.7692	Adder	19.73
942381	AE2-251 C	28.2865	Adder	33.28
942382	AE2-251 E	72.3773	Adder	85.15
942441	AE2-257 C	2.2070	Adder	2.6
942442	AE2-257 E	5.8184	Adder	6.85
943071	AE2-334 C	2.1370	Adder	2.51
943072	AE2-334 E	1.1392	Adder	1.34
943361	AF1-007 C	0.1272	Adder	0.15
943362	AF1-007 E	0.3616	Adder	0.43
943441	AF1-015 C	0.3944	Adder	0.46
943442	AF1-015 E	0.5446	Adder	0.64
943651	AF1-036 C	0.5002	Adder	0.59
943652	AF1-036 E	0.6907	Adder	0.81
943732	AF1-041 E	0.1885	Adder	0.22
944921	AF1-157 C O1	0.9986	Adder	1.17
944922	AF1-157 E O1	0.6657	Adder	0.78
944951	AF1-160 C	1.2146	50/50	1.2146
944952	AF1-160 E	1.2753	50/50	1.2753
945661	AF1-231 C	0.5026	Adder	0.59
945662	AF1-231 E	0.7539	Adder	0.89
945731	AF1-238 C	3.3384	Adder	3.93
945732	AF1-238 E	5.0076	Adder	5.89
945741	AF1-239 C	0.7855	Adder	0.92
945742	AF1-239 E	1.1783	Adder	1.39
945781	AF1-243	0.3306	Adder	0.39
945791	AF1-244	0.5277	Adder	0.62
945931	AF1-258	0.2105	Adder	0.25
945941	AF1-259	0.0481	Adder	0.06
945971	AF1-262	0.0486	Adder	0.06
946041	AF1-269 (Withdrawn : 05/12/2020)	0.7143	Adder	0.84
957221	AF2-016 C	4.9903	Adder	11.08
957222	AF2-016 E	7.4854	Adder	16.62
957251	AF2-019 C	0.6079	Adder	1.35
957252	AF2-019 E	0.9118	Adder	2.02
957261	AF2-020 C	0.2162	Adder	0.48
957262	AF2-020 E	0.3244	Adder	0.72
957271	AF2-021 C	0.4657	Adder	1.03

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957272	AF2-021 E	0.6986	Adder	1.55
957281	AF2-022 C	0.7154	Adder	1.59
957282	AF2-022 E	1.0731	Adder	2.38
957311	AF2-025 C	0.3318	Adder	0.74
957312	AF2-025 E	0.4977	Adder	1.1
957321	AF2-026 C	0.4214	Adder	0.94
957322	AF2-026 E	0.6321	Adder	1.4
957611	AF2-055 C	1.2267	Adder	2.72
957612	AF2-055 E	0.5257	Adder	1.17
957641	AF2-058	0.0680	Adder	0.15
957661	AF2-060	0.3155	Adder	0.7
957671	AF2-061 O2	1.4023	Adder	3.11
958151	AF2-109 C	0.3129	Adder	0.69
958152	AF2-109 E	0.3129	Adder	0.69
958781	AF2-169 C O2 (Withdrawn : 06/09/2020)	0.2045	Adder	0.45
958782	AF2-169 E O2 (Withdrawn : 06/09/2020)	24.3373	Adder	54.02
958811	AF2-172 C	0.1139	Adder	0.25
958812	AF2-172 E	0.1858	Adder	0.41
958831	AF2-174 C	0.1379	Adder	0.31
958832	AF2-174 E	0.1904	Adder	0.42
959021	AF2-193 C O2	4.2507	Adder	9.44
959022	AF2-193 E O2	11.4662	Adder	25.45
959031	AF2-194 C O2	4.2507	Adder	9.44
959032	AF2-194 E O2	11.4662	Adder	25.45
959051	AF2-196 C	0.3190	Adder	0.71
959052	AF2-196 E	0.7444	Adder	1.65
959111	AF2-202 C	0.0309	Adder	0.07
959112	AF2-202 E	0.0423	Adder	0.09
959161	AF2-207 C O2	0.7036	Adder	1.56
959162	AF2-207 E O2	1.0554	Adder	2.34
959571	AF2-248 C	0.1190	Adder	0.26
959572	AF2-248 E	0.1330	Adder	0.3
959581	AF2-249 C	0.0210	Adder	0.05
959582	AF2-249 E	0.0840	Adder	0.19
959591	AF2-250 C	0.0385	Adder	0.09
959592	AF2-250 E	0.0297	Adder	0.07
960221	AF2-313 C	0.4043	Adder	0.9
960222	AF2-313 E	0.2292	Adder	0.51
960341	AF2-325 C	0.1439	Adder	0.32
960342	AF2-325 E	0.1987	Adder	0.44
960671	AF2-358 C O2	2.0529	Adder	4.56
960672	AF2-358 E O2	1.3686	Adder	3.04
960871	AF2-378 C	0.0381	Adder	0.08
960872	AF2-378 E	0.0528	Adder	0.12
960881	AF2-379 C	0.0573	Adder	0.13
960882	AF2-379 E	0.0790	Adder	0.18
960941	AF2-385 C O2	1.6734	Adder	3.71
960942	AF2-385 E O2	0.9522	Adder	2.11
960961	AF2-387 C O2	2.1887	Adder	4.86
960962	AF2-387 E O2	1.0977	Adder	2.44

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961181	AF2-409 O2	3.4121	Adder	7.57
999905	MARINGEN 2	0.3130	Adder	0.37
999906	PVILLEG 2	0.1328	Adder	0.16
NEWTON	NEWTON	0.4814	Confirmed LTF	0.4814
FARMERCITY	FARMERCITY	0.0251	Confirmed LTF	0.0251
G-007A	G-007A	4.3706	Confirmed LTF	4.3706
VFT	VFT	6.7725	Confirmed LTF	6.7725
CALDERWOOD	CALDERWOOD	0.2266	Confirmed LTF	0.2266
PRAIRIE	PRAIRIE	1.1623	Confirmed LTF	1.1623
CHEOAH	CHEOAH	0.2282	Confirmed LTF	0.2282
EDWARDS	EDWARDS	0.1565	Confirmed LTF	0.1565
TILTON	TILTON	0.2816	Confirmed LTF	0.2816
GIBSON	GIBSON	0.2446	Confirmed LTF	0.2446
BLUEG	BLUEG	0.7777	Confirmed LTF	0.7777
TRIMBLE	TRIMBLE	0.2493	Confirmed LTF	0.2493
CATAWBA	CATAWBA	0.1617	Confirmed LTF	0.1617

14.5.5 Index 5

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
100073960	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/ * \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	140.87	144.48	DC	63.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231505	HR4	15.8460	50/50	15.8460
231708	CHRIST3	2.9960	Adder	3.52
231900	EM5	38.4819	50/50	38.4819
231901	EM4	10.6021	50/50	10.6021
231903	GEN4	1.6776	Adder	1.97
231904	DC1 NUG	4.3464	Adder	5.11
231905	DC2 NUG	4.3464	Adder	5.11
231908	HR1	7.6165	50/50	7.6165
231909	HR2	7.6798	50/50	7.6798
231910	HR3	7.6165	50/50	7.6165
231916	EM3	5.2837	50/50	5.2837
231917	EM10	0.8786	50/50	0.8786
231919	CHRIST1	1.2713	50/50	1.2713
232405	W1-003 E	0.5706	Adder	0.67
232407	W1-004 E	0.5706	Adder	0.67
232409	W1-005 E	0.5706	Adder	0.67
232411	W1-006 E	0.5706	Adder	0.67
232412	X1-032 E	0.5087	Adder	0.6
232418	X3-008 E	1.6329	Adder	1.92
232423	X3-066 E	0.5173	Adder	0.61
232425	Y1-079 E	0.8584	Adder	1.01
232427	Y1-080 E	0.2736	Adder	0.32
232429	Y3-058 E	1.1880	Adder	1.4
232433	Z2-076 E	0.2504	Adder	0.29
232435	Z2-077 E	0.2504	Adder	0.29
232436	AB1-176 C	0.2100	Adder	0.25
232922	MR3 (Deactivation : 01/06/2021)	11.5259	Adder	13.56
917082	Z2-012 E	1.5712	Adder	1.85
919831	AA2-069 (Suspended)	50.9626	Adder	59.96
919921	AB1-000 3	-1.4309	Adder	-1.68
923282	AB1-137 C	0.5215	Adder	0.61
923283	AB1-137 E	0.2235	Adder	0.26
923322	AB1-141 C OP	1.8872	Adder	2.22
923323	AB1-141 E OP	0.8807	Adder	1.04
923332	AB1-142 C OP	1.8872	Adder	2.22
923603	AB1-176 E	0.3463	Adder	0.41
923921	AB2-032 C	1.9012	Adder	2.24
923922	AB2-032 E	0.8947	Adder	1.05
923951	AB2-036 C	4.8387	Adder	5.69
923952	AB2-036 E	7.9165	Adder	9.31
923961	AB2-037 C	10.6457	Adder	12.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923962	AB2-037 E	17.3912	Adder	20.46
924681	AB2-120 C OP	4.8140	Adder	5.66
924682	AB2-120 E OP	7.8544	Adder	9.24
924781	AB2-130 C OP	4.0628	Adder	4.78
924782	AB2-130 E OP	6.6288	Adder	7.8
924801	AB2-133 C OP	3.4368	Adder	4.04
924802	AB2-133 E OP	4.3588	Adder	5.13
924821	AB2-135 C	4.0578	Adder	4.77
924822	AB2-135 E	4.6277	Adder	5.44
924831	AB2-136 C	3.2413	Adder	3.81
924832	AB2-136 E	3.4373	Adder	4.04
924971	AB2-153 C	1.0624	Adder	1.25
924972	AB2-153 E	1.7334	Adder	2.04
925151	AB2-172 C OP	2.5020	Adder	2.94
925152	AB2-172 E OP	4.0821	Adder	4.8
925251	AB2-179 C OP	5.5665	Adder	6.55
925252	AB2-179 E OP	1.8358	Adder	2.16
925261	AB2-180 C	1.7883	Adder	2.1
925262	AB2-180 E	0.7664	Adder	0.9
925271	AB2-185 C OP	1.9383	Adder	2.28
925272	AB2-185 E OP	0.8307	Adder	0.98
926131	AC1-091 C	0.8330	Adder	0.98
926132	AC1-091 E	1.3662	Adder	1.61
926141	AC1-092 C	0.8330	Adder	0.98
926142	AC1-092 E	1.3662	Adder	1.61
926151	AC1-093 C	0.7886	Adder	0.93
926152	AC1-093 E	1.2995	Adder	1.53
926161	AC1-094 C	0.6664	Adder	0.78
926162	AC1-094 E	1.0996	Adder	1.29
927031	AC1-190 C	4.6026	Adder	5.41
927032	AC1-190 E	1.9726	Adder	2.32
927191	AC1-213 C	0.4067	Adder	0.48
927192	AC1-213 E	0.2669	Adder	0.31
930201	AB1-056 C	7.9734	Adder	9.38
930202	AB1-056 E	22.7069	Adder	26.71
930881	AB1-137 C	0.5215	Adder	0.61
930882	AB1-137 E	0.2235	Adder	0.26
930932	AB1-142 E OP	0.8807	Adder	1.04
932161	AC2-023 C	3.3968	Adder	4.0
932162	AC2-023 E	2.4739	Adder	2.91
933631	AC2-185 C	1.6883	Adder	1.99
933632	AC2-185 E	2.7545	Adder	3.24
933641	AC2-186 C	2.3275	Adder	2.74
933642	AC2-186 E	3.7976	Adder	4.47
936451	AD2-059 C	0.0482	Adder	0.06
936452	AD2-059 E	0.1511	Adder	0.18
936611	AD2-076 C O1	2.6084	Adder	3.07
936612	AD2-076 E O1	4.2559	Adder	5.01
938651	AE1-087 C	2.1069	Adder	2.48
938652	AE1-087 E	0.5267	Adder	0.62
938811	AE1-107 C	4.7343	Adder	5.57
938812	AE1-107 E	3.3751	Adder	3.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938891	AE1-117 C O1	5.1530	Adder	6.06
938892	AE1-117 E O1	13.7206	Adder	16.14
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	5.1537	Adder	6.06
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	13.7224	Adder	16.14
939151	AE1-145	2.5335	Adder	2.98
939621	AE1-192 C O1	5.9553	Adder	7.01
939622	AE1-192 E O1	2.9143	Adder	3.43
940271	AE2-010	-0.4740	Adder	-0.56
941021	AE2-093 C	2.6985	Adder	3.17
941022	AE2-093 E	4.2874	Adder	5.04
941181	AE2-112 C	0.9050	Adder	1.06
941182	AE2-112 E	1.4765	Adder	1.74
942441	AE2-257 C	4.0953	Adder	4.82
942442	AE2-257 E	10.7967	Adder	12.7
943361	AF1-007 C	0.2352	Adder	0.28
943362	AF1-007 E	0.6686	Adder	0.79
943441	AF1-015 C	0.8630	Adder	1.02
943442	AF1-015 E	1.1917	Adder	1.4
943651	AF1-036 C	1.1767	Adder	1.38
943652	AF1-036 E	1.6250	Adder	1.91
944921	AF1-157 C O1	1.8751	Adder	2.21
944922	AF1-157 E O1	1.2501	Adder	1.47
945661	AF1-231 C	0.9631	Adder	1.13
945662	AF1-231 E	1.4446	Adder	1.7
945781	AF1-243	0.6335	Adder	0.75
945791	AF1-244	1.0182	Adder	1.2
945931	AF1-258	0.4088	Adder	0.48
945941	AF1-259	0.1113	Adder	0.13
946041	AF1-269 (Withdrawn : 05/12/2020)	1.4332	Adder	1.69
957443	AF2-038 BAT	1.8778	Merchant Transmission	1.8778
957611	AF2-055 C	2.3505	Adder	5.22
957612	AF2-055 E	1.0073	Adder	2.24
957661	AF2-060	0.6042	Adder	1.34
957671	AF2-061 O2	2.6850	Adder	5.96
958151	AF2-109 C	0.7404	Adder	1.64
958152	AF2-109 E	0.7404	Adder	1.64
959021	AF2-193 C O2	7.7187	Adder	17.13
959022	AF2-193 E O2	20.8210	Adder	46.22
959031	AF2-194 C O2	7.7187	Adder	17.13
959032	AF2-194 E O2	20.8210	Adder	46.22
959051	AF2-196 C	0.5920	Adder	1.31
959052	AF2-196 E	1.3812	Adder	3.07
959161	AF2-207 C O2	1.3644	Adder	3.03
959162	AF2-207 E O2	2.0466	Adder	4.54
959571	AF2-248 C	0.2288	Adder	0.51
959572	AF2-248 E	0.2557	Adder	0.57
959581	AF2-249 C	0.0404	Adder	0.09
959582	AF2-249 E	0.1615	Adder	0.36

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0740	Adder	0.16
959592	AF2-250 E	0.0572	Adder	0.13
960221	AF2-313 C	0.9361	Adder	2.08
960222	AF2-313 E	0.5307	Adder	1.18
960341	AF2-325 C	0.2917	Adder	0.65
960342	AF2-325 E	0.4028	Adder	0.89
960671	AF2-358 C O2	4.1745	Adder	9.27
960672	AF2-358 E O2	2.7830	Adder	6.18
960871	AF2-378 C	0.0770	Adder	0.17
960872	AF2-378 E	0.1068	Adder	0.24
960881	AF2-379 C	0.1107	Adder	0.25
960882	AF2-379 E	0.1526	Adder	0.34
960941	AF2-385 C O2	3.2135	Adder	7.13
960942	AF2-385 E O2	1.8286	Adder	4.06
960961	AF2-387 C O2	4.8647	Adder	10.8
960962	AF2-387 E O2	2.4397	Adder	5.42
961181	AF2-409 O2	7.0535	Adder	15.66
NEWTON	NEWTON	0.0322	Confirmed LTF	0.0322
CPL	CPL	0.0377	Confirmed LTF	0.0377
FARMERCITY	FARMERCITY	0.0015	Confirmed LTF	0.0015
NY	NY	0.9368	Confirmed LTF	0.9368
PRAIRIE	PRAIRIE	0.0646	Confirmed LTF	0.0646
O-066	O-066	14.6093	Confirmed LTF	14.6093
EDWARDS	EDWARDS	0.0122	Confirmed LTF	0.0122
CBM-S2	CBM-S2	0.2139	Confirmed LTF	0.2139
TILTON	TILTON	0.0214	Confirmed LTF	0.0214
G-007	G-007	2.2142	Confirmed LTF	2.2142
MADISON	MADISON	0.0181	Confirmed LTF	0.0181
GIBSON	GIBSON	0.0169	Confirmed LTF	0.0169
BLUEG	BLUEG	0.0538	Confirmed LTF	0.0538
TRIMBLE	TRIMBLE	0.0178	Confirmed LTF	0.0178

14.5.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
100073973	231001	EDGEM R 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P4_LINWO225/ * \$ DELCO \$ LINWO225 \$ STBK	breaker	804.0	136.49	139.76	DC	57.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231505	HR4	15.8233	50/50	15.8233
231708	CHRIST3	2.7911	50/50	2.7911
231900	EM5	38.4268	50/50	38.4268
231901	EM4	8.3186	50/50	8.3186
231903	GEN4	1.4363	Adder	1.69
231904	DC1 NUG	3.7212	Adder	4.38
231905	DC2 NUG	3.7212	Adder	4.38
231908	HR1	5.9760	50/50	5.9760
231910	HR3	5.9760	50/50	5.9760
231918	WEST 1	0.6504	50/50	0.6504
231919	CHRIST1	1.0067	50/50	1.0067
231920	CHRIST2	1.0023	50/50	1.0023
232405	W1-003 E	0.5171	Adder	0.61
232407	W1-004 E	0.5171	Adder	0.61
232409	W1-005 E	0.5171	Adder	0.61
232411	W1-006 E	0.5171	Adder	0.61
232412	X1-032 E	0.4610	Adder	0.54
232416	X2-083	0.1070	50/50	0.1070
232418	X3-008 E	1.4773	Adder	1.74
232423	X3-066 E	0.4615	Adder	0.54
232425	Y1-079 E	0.7700	Adder	0.91
232427	Y1-080 E	0.2478	Adder	0.29
232429	Y3-058 E	1.0763	Adder	1.27
232433	Z2-076 E	0.2269	Adder	0.27
232435	Z2-077 E	0.2269	Adder	0.27
232436	AB1-176 C	0.1873	Adder	0.22
232922	MR3 (Deactivation : 01/06/2021)	10.4343	Adder	12.28
917082	Z2-012 E	1.4240	Adder	1.68
919831	AA2-069 (Suspended)	46.1362	Adder	54.28
919921	AB1-000 3	-1.2968	Adder	-1.53
923282	AB1-137 C	0.4725	Adder	0.56
923283	AB1-137 E	0.2025	Adder	0.24
923322	AB1-141 C OP	1.6835	Adder	1.98
923323	AB1-141 E OP	0.7856	Adder	0.92
923332	AB1-142 C OP	1.6835	Adder	1.98
923603	AB1-176 E	0.3089	Adder	0.36
923921	AB2-032 C	1.6960	Adder	2.0
923922	AB2-032 E	0.7981	Adder	0.94
923951	AB2-036 C	4.3456	Adder	5.11
923952	AB2-036 E	7.1099	Adder	8.36
923961	AB2-037 C	9.6867	Adder	11.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923962	AB2-037 E	15.8245	Adder	18.62
924681	AB2-120 C OP	4.3628	Adder	5.13
924682	AB2-120 E OP	7.1182	Adder	8.37
924781	AB2-130 C OP	3.6795	Adder	4.33
924782	AB2-130 E OP	6.0034	Adder	7.06
924801	AB2-133 C OP	3.0487	Adder	3.59
924802	AB2-133 E OP	3.8666	Adder	4.55
924821	AB2-135 C	3.6102	Adder	4.25
924822	AB2-135 E	4.1173	Adder	4.84
924831	AB2-136 C	2.9343	Adder	3.45
924832	AB2-136 E	3.1118	Adder	3.66
924971	AB2-153 C	0.9477	Adder	1.11
924972	AB2-153 E	1.5463	Adder	1.82
925151	AB2-172 C OP	2.2636	Adder	2.66
925152	AB2-172 E OP	3.6932	Adder	4.34
925251	AB2-179 C OP	4.8359	Adder	5.69
925252	AB2-179 E OP	1.5948	Adder	1.88
925261	AB2-180 C	1.6203	Adder	1.91
925262	AB2-180 E	0.6944	Adder	0.82
925271	AB2-185 C OP	1.7387	Adder	2.05
925272	AB2-185 E OP	0.7452	Adder	0.88
926131	AC1-091 C	0.7529	Adder	0.89
926132	AC1-091 E	1.2347	Adder	1.45
926141	AC1-092 C	0.7529	Adder	0.89
926142	AC1-092 E	1.2347	Adder	1.45
926151	AC1-093 C	0.7127	Adder	0.84
926152	AC1-093 E	1.1745	Adder	1.38
926161	AC1-094 C	0.6023	Adder	0.71
926162	AC1-094 E	0.9938	Adder	1.17
927031	AC1-190 C	4.1647	Adder	4.9
927032	AC1-190 E	1.7849	Adder	2.1
927191	AC1-213 C	0.3686	Adder	0.43
927192	AC1-213 E	0.2419	Adder	0.28
930201	AB1-056 C	7.2240	Adder	8.5
930202	AB1-056 E	20.5728	Adder	24.2
930881	AB1-137 C	0.4725	Adder	0.56
930882	AB1-137 E	0.2025	Adder	0.24
930932	AB1-142 E OP	0.7856	Adder	0.92
932161	AC2-023 C	3.0776	Adder	3.62
932162	AC2-023 E	2.2414	Adder	2.64
933631	AC2-185 C	1.5259	Adder	1.8
933632	AC2-185 E	2.4895	Adder	2.93
933641	AC2-186 C	2.1021	Adder	2.47
933642	AC2-186 E	3.4297	Adder	4.03
936451	AD2-059 C	0.0415	Adder	0.05
936452	AD2-059 E	0.1303	Adder	0.15
936611	AD2-076 C O1	2.3237	Adder	2.73
936612	AD2-076 E O1	3.7913	Adder	4.46
938651	AE1-087 C	1.9062	Adder	2.24
938652	AE1-087 E	0.4765	Adder	0.56
938811	AE1-107 C	4.0576	Adder	4.77
938812	AE1-107 E	2.8927	Adder	3.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938891	AE1-117 C O1	4.6686	Adder	5.49
938892	AE1-117 E O1	12.4310	Adder	14.62
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	4.6694	Adder	5.49
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	12.4329	Adder	14.63
939151	AE1-145	2.2960	Adder	2.7
939621	AE1-192 C O1	5.3972	Adder	6.35
939622	AE1-192 E O1	2.6412	Adder	3.11
940271	AE2-010	-0.4298	Adder	-0.51
941021	AE2-093 C	2.4382	Adder	2.87
941022	AE2-093 E	3.8740	Adder	4.56
941181	AE2-112 C	0.8062	Adder	0.95
941182	AE2-112 E	1.3154	Adder	1.55
942441	AE2-257 C	3.7105	Adder	4.37
942442	AE2-257 E	9.7821	Adder	11.51
943361	AF1-007 C	0.2131	Adder	0.25
943362	AF1-007 E	0.6057	Adder	0.71
943441	AF1-015 C	0.7797	Adder	0.92
943442	AF1-015 E	1.0768	Adder	1.27
943651	AF1-036 C	1.0483	Adder	1.23
943652	AF1-036 E	1.4476	Adder	1.7
944921	AF1-157 C O1	1.6986	Adder	2.0
944922	AF1-157 E O1	1.1324	Adder	1.33
945661	AF1-231 C	0.8728	Adder	1.03
945662	AF1-231 E	1.3092	Adder	1.54
945781	AF1-243	0.5742	Adder	0.68
945791	AF1-244	0.9228	Adder	1.09
945931	AF1-258	0.3704	Adder	0.44
945941	AF1-259	0.0993	Adder	0.12
946041	AF1-269 (Withdrawn : 05/12/2020)	1.2978	Adder	1.53
957443	AF2-038 BAT	1.7026	Merchant Transmission	1.7026
957611	AF2-055 C	2.1302	Adder	4.73
957612	AF2-055 E	0.9129	Adder	2.03
957661	AF2-060	0.5476	Adder	1.22
957671	AF2-061 O2	2.4334	Adder	5.4
958151	AF2-109 C	0.6568	Adder	1.46
958152	AF2-109 E	0.6568	Adder	1.46
959021	AF2-193 C O2	6.9939	Adder	15.52
959022	AF2-193 E O2	18.8659	Adder	41.88
959031	AF2-194 C O2	6.9939	Adder	15.52
959032	AF2-194 E O2	18.8659	Adder	41.88
959051	AF2-196 C	0.5363	Adder	1.19
959052	AF2-196 E	1.2514	Adder	2.78
959161	AF2-207 C O2	1.2367	Adder	2.75
959162	AF2-207 E O2	1.8551	Adder	4.12
959571	AF2-248 C	0.2073	Adder	0.46
959572	AF2-248 E	0.2317	Adder	0.51
959581	AF2-249 C	0.0366	Adder	0.08
959582	AF2-249 E	0.1463	Adder	0.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959591	AF2-250 C	0.0671	Adder	0.15
959592	AF2-250 E	0.0518	Adder	0.11
960221	AF2-313 C	0.8351	Adder	1.85
960222	AF2-313 E	0.4734	Adder	1.05
960341	AF2-325 C	0.2640	Adder	0.59
960342	AF2-325 E	0.3646	Adder	0.81
960671	AF2-358 C O2	3.7780	Adder	8.39
960672	AF2-358 E O2	2.5187	Adder	5.59
960871	AF2-378 C	0.0697	Adder	0.15
960872	AF2-378 E	0.0967	Adder	0.21
960881	AF2-379 C	0.1004	Adder	0.22
960882	AF2-379 E	0.1383	Adder	0.31
960941	AF2-385 C O2	2.9116	Adder	6.46
960942	AF2-385 E O2	1.6568	Adder	3.68
960961	AF2-387 C O2	4.3853	Adder	9.73
960962	AF2-387 E O2	2.1992	Adder	4.88
961181	AF2-409 O2	6.4003	Adder	14.21
NEWTON	NEWTON	0.0183	Confirmed LTF	0.0183
CPL	CPL	0.0404	Confirmed LTF	0.0404
FARMERCITY	FARMERCITY	0.0008	Confirmed LTF	0.0008
NY	NY	0.8433	Confirmed LTF	0.8433
TVA	TVA	0.0056	Confirmed LTF	0.0056
PRAIRIE	PRAIRIE	0.0336	Confirmed LTF	0.0336
O-066	O-066	13.1779	Confirmed LTF	13.1779
EDWARDS	EDWARDS	0.0077	Confirmed LTF	0.0077
CBM-S2	CBM-S2	0.2485	Confirmed LTF	0.2485
TILTON	TILTON	0.0139	Confirmed LTF	0.0139
G-007	G-007	1.9968	Confirmed LTF	1.9968
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
GIBSON	GIBSON	0.0104	Confirmed LTF	0.0104
BLUEG	BLUEG	0.0330	Confirmed LTF	0.0330
TRIMBLE	TRIMBLE	0.0106	Confirmed LTF	0.0106

14.5.7 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
100074325	231001	EDGEMR 5	DP&L	213750	LINWOOD	PECO	1	DPL_P1_2_CKT 23015	single	804.0	107.75	108.64	DC	15.56

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.6482	80/20	0.6482
231505	HR4	15.7543	80/20	15.7543
231708	CHRIST3	2.8110	80/20	2.8110
231900	EM5	38.2592	80/20	38.2592
231901	EM4	8.3808	80/20	8.3808
231902	DC CT7	1.5172	80/20	1.5172
231903	GEN4	1.4428	Adder	1.7
231904	DC1 NUG	4.3978	80/20	4.3978
231905	DC2 NUG	4.3978	80/20	4.3978
231906	DC3 NUG	1.9165	80/20	1.9165
231907	DC10	0.4738	80/20	0.4738
231908	HR1	6.0207	80/20	6.0207
231909	HR2	4.8227	80/20	4.8227
231910	HR3	6.0207	80/20	6.0207
231915	DC CT6	1.4640	80/20	1.4640
231916	EM3	3.3180	80/20	3.3180
231917	EM10	0.5517	80/20	0.5517
231918	WEST 1	0.6594	80/20	0.6594
231919	CHRIST1	1.0139	80/20	1.0139
231920	CHRIST2	1.0094	80/20	1.0094
232416	X2-083	0.1073	80/20	0.1073
232436	AB1-176 C	0.1879	Adder	0.22
232922	MR3 (Deactivation : 01/06/2021)	10.4638	Adder	12.31
919831	AA2-069 (Suspended)	46.2665	Adder	54.43
919901	AB1-000 1	-1.2927	Adder	-1.52
919911	AB1-000 2	-1.2927	Adder	-1.52
919921	AB1-000 3	-1.2927	Adder	-1.52
923282	AB1-137 C	0.4736	Adder	0.56
923322	AB1-141 C OP	1.6882	Adder	1.99
923332	AB1-142 C OP	1.6882	Adder	1.99
923921	AB2-032 C	1.7007	Adder	2.0
923951	AB2-036 C	4.3566	Adder	5.13
923961	AB2-037 C	9.7049	Adder	11.42
924681	AB2-120 C OP	4.3731	Adder	5.14
924781	AB2-130 C OP	3.6886	Adder	4.34
924801	AB2-133 C OP	3.0579	Adder	3.6
924821	AB2-135 C	3.6211	Adder	4.26
924831	AB2-136 C	2.9411	Adder	3.46
924971	AB2-153 C	0.9504	Adder	1.12
925151	AB2-172 C OP	2.2688	Adder	2.67
925251	AB2-179 C OP	4.8547	Adder	5.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925261	AB2-180 C	1.6241	Adder	1.91
925271	AB2-185 C OP	1.7431	Adder	2.05
926131	AC1-091 C	0.7551	Adder	0.89
926141	AC1-092 C	0.7551	Adder	0.89
926151	AC1-093 C	0.7148	Adder	0.84
926161	AC1-094 C	0.6041	Adder	0.71
927031	AC1-190 C	4.1745	Adder	4.91
927191	AC1-213 C	0.3694	Adder	0.43
930201	AB1-056 C	7.2416	Adder	8.52
930881	AB1-137 C	0.4736	Adder	0.56
932161	AC2-023 C	3.0846	Adder	3.63
933631	AC2-185 C	1.5304	Adder	1.8
933641	AC2-186 C	2.1076	Adder	2.48
936451	AD2-059 C	0.0490	80/20	0.0490
936611	AD2-076 C O1	2.3304	Adder	2.74
938651	AE1-087 C	1.9105	Adder	2.25
938811	AE1-107 C	4.7951	80/20	4.7951
938891	AE1-117 C O1	4.6799	Adder	5.51
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	4.6806	Adder	5.51
939151	AE1-145	2.3015	Adder	2.71
939621	AE1-192 C O1	5.4100	Adder	6.36
940271	AE2-010	-0.4280	Adder	-0.5
941021	AE2-093 C	2.4436	Adder	2.87
941181	AE2-112 C	0.8085	Adder	0.95
942441	AE2-257 C	3.7194	Adder	4.38
943361	AF1-007 C	0.2136	Adder	0.25
943441	AF1-015 C	0.7815	Adder	0.92
943651	AF1-036 C	1.0513	Adder	1.24
944921	AF1-157 C O1	1.7026	Adder	2.0
945661	AF1-231 C	0.8749	Adder	1.03
945781	AF1-243	0.5755	Adder	0.68
945791	AF1-244	0.9250	Adder	1.09
945931	AF1-258	0.3712	Adder	0.44
945941	AF1-259	0.0995	Adder	0.12
946041	AF1-269 (Withdrawn : 05/12/2020)	1.3008	Adder	1.53
957611	AF2-055 C	2.1352	Adder	4.74
957661	AF2-060	0.5489	Adder	1.22
957671	AF2-061 O2	2.4390	Adder	5.41
958151	AF2-109 C	0.6588	Adder	1.46
959021	AF2-193 C O2	7.0111	Adder	15.56
959031	AF2-194 C O2	7.0111	Adder	15.56
959051	AF2-196 C	0.5376	Adder	1.19
959161	AF2-207 C O2	1.2395	Adder	2.75
959571	AF2-248 C	0.2078	Adder	0.46
959581	AF2-249 C	0.0367	Adder	0.08
959591	AF2-250 C	0.0672	Adder	0.15
960221	AF2-313 C	0.8374	Adder	1.86
960341	AF2-325 C	0.2646	Adder	0.59
960671	AF2-358 C O2	3.7866	Adder	8.41
960871	AF2-378 C	0.0698	Adder	0.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960881	AF2-379 C	0.1006	Adder	0.22
960941	AF2-385 C O2	2.9185	Adder	6.48
960961	AF2-387 C O2	4.3955	Adder	9.76
961181	AF2-409 O2	6.4138	Adder	14.24
WEC	WEC	0.0079	Confirmed LTF	0.0079
LGEE	LGEE	0.0171	Confirmed LTF	0.0171
CPL	CPL	0.0721	Confirmed LTF	0.0721
CBM-W2	CBM-W2	0.3358	Confirmed LTF	0.3358
NY	NY	0.8162	Confirmed LTF	0.8162
CBM-W1	CBM-W1	0.2502	Confirmed LTF	0.2502
TVA	TVA	0.0728	Confirmed LTF	0.0728
CBM-S2	CBM-S2	0.5260	Confirmed LTF	0.5260
CBM-S1	CBM-S1	0.4090	Confirmed LTF	0.4090
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
MEC	MEC	0.0493	Confirmed LTF	0.0493

14.5.8 Index 8

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
101764710	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PEACH215 \$ STBK	breaker	378.0	103.88	108.73	DC	40.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200062	SALEM G3	1.9750	Adder	2.32
231708	CHRIST3	0.9517	Adder	1.12
231902	DC CT7	1.0848	50/50	1.0848
231903	GEN4	1.0316	Adder	1.21
231904	DC1 NUG	3.1444	50/50	3.1444
231905	DC2 NUG	3.1444	50/50	3.1444
231906	DC3 NUG	1.3702	50/50	1.3702
231907	DC10	0.3388	50/50	0.3388
231915	DC CT6	1.0467	50/50	1.0467
232405	W1-003 E	0.3638	Adder	0.43
232407	W1-004 E	0.3638	Adder	0.43
232409	W1-005 E	0.3638	Adder	0.43
232411	W1-006 E	0.3638	Adder	0.43
232412	X1-032 E	0.3240	Adder	0.38
232416	X2-083	0.0546	50/50	0.0546
232418	X3-008 E	1.0574	Adder	1.24
232422	X3-066 FULL	0.0483	50/50	0.0483
232423	X3-066 E	0.4572	50/50	0.4572
232424	Y1-079 C	0.0757	50/50	0.0757
232425	Y1-079 E	0.7163	50/50	0.7163
232427	Y1-080 E	0.1755	Adder	0.21
232429	Y3-058 E	0.7590	Adder	0.89
232433	Z2-076 E	0.1606	Adder	0.19
232435	Z2-077 E	0.1606	Adder	0.19
232436	AB1-176 C	0.1856	50/50	0.1856
232922	MR3 (Deactivation : 01/06/2021)	7.5646	Adder	8.9
917082	Z2-012 E	1.0019	Adder	1.18
919831	AA2-069 (Suspended)	33.4473	Adder	39.35
923282	AB1-137 C	0.3347	Adder	0.39
923283	AB1-137 E	0.1434	Adder	0.17
923322	AB1-141 C OP	1.6670	50/50	1.6670
923323	AB1-141 E OP	0.7779	50/50	0.7779
923332	AB1-142 C OP	1.6670	50/50	1.6670
923603	AB1-176 E	0.3060	50/50	0.3060
923921	AB2-032 C	1.6793	50/50	1.6793
923922	AB2-032 E	0.7903	50/50	0.7903
923951	AB2-036 C	3.9842	50/50	3.9842
923952	AB2-036 E	6.5185	50/50	6.5185
923961	AB2-037 C	6.3826	Adder	7.51
923962	AB2-037 E	10.4268	Adder	12.27
924681	AB2-120 C OP	3.0698	Adder	3.61

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924682	AB2-120 E OP	5.0086	Adder	5.89
924781	AB2-130 C OP	2.6140	Adder	3.08
924782	AB2-130 E OP	4.2649	Adder	5.02
924801	AB2-133 C OP	3.2088	50/50	3.2088
924802	AB2-133 E OP	4.0697	50/50	4.0697
924821	AB2-135 C	3.6915	50/50	3.6915
924822	AB2-135 E	4.2100	50/50	4.2100
924831	AB2-136 C	2.0852	Adder	2.45
924832	AB2-136 E	2.2114	Adder	2.6
924971	AB2-153 C	0.9384	50/50	0.9384
924972	AB2-153 E	1.5312	50/50	1.5312
925151	AB2-172 C OP	1.6202	Adder	1.91
925152	AB2-172 E OP	2.6434	Adder	3.11
925251	AB2-179 C OP	6.1901	50/50	6.1901
925252	AB2-179 E OP	2.0414	50/50	2.0414
925261	AB2-180 C	1.1425	Adder	1.34
925262	AB2-180 E	0.4897	Adder	0.58
925271	AB2-185 C OP	1.6174	50/50	1.6174
925272	AB2-185 E OP	0.6932	50/50	0.6932
926131	AC1-091 C	0.5588	Adder	0.66
926132	AC1-091 E	0.9165	Adder	1.08
926141	AC1-092 C	0.5588	Adder	0.66
926142	AC1-092 E	0.9165	Adder	1.08
926151	AC1-093 C	0.5290	Adder	0.62
926152	AC1-093 E	0.8718	Adder	1.03
926161	AC1-094 C	0.4471	Adder	0.53
926162	AC1-094 E	0.7377	Adder	0.87
927031	AC1-190 C	2.9774	Adder	3.5
927032	AC1-190 E	1.2760	Adder	1.5
927191	AC1-213 C	0.2598	Adder	0.31
927192	AC1-213 E	0.1705	Adder	0.2
930201	AB1-056 C	5.1165	Adder	6.02
930202	AB1-056 E	14.5710	Adder	17.14
930881	AB1-137 C	0.3347	Adder	0.39
930882	AB1-137 E	0.1434	Adder	0.17
930932	AB1-142 E OP	0.7779	50/50	0.7779
932082	AC2-018 E1	1.6551	Adder	1.95
932092	AC2-018 E2	1.6551	Adder	1.95
932161	AC2-023 C	2.1703	Adder	2.55
932162	AC2-023 E	1.5806	Adder	1.86
933631	AC2-185 C	1.1326	Adder	1.33
933632	AC2-185 E	1.8479	Adder	2.17
933641	AC2-186 C	1.5533	Adder	1.83
933642	AC2-186 E	2.5343	Adder	2.98
936451	AD2-059 C	0.0324	50/50	0.0324
936452	AD2-059 E	0.1015	50/50	0.1015
936611	AD2-076 C O1	2.3355	50/50	2.3355
936612	AD2-076 E O1	3.8106	50/50	3.8106
938651	AE1-087 C	1.3644	Adder	1.61
938652	AE1-087 E	0.3411	Adder	0.4
938811	AE1-107 C	4.9535	50/50	4.9535
938812	AE1-107 E	3.5314	50/50	3.5314

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938891	AE1-117 C O1	3.3070	Adder	3.89
938892	AE1-117 E O1	8.8055	Adder	10.36
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	3.3074	Adder	3.89
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	8.8064	Adder	10.36
939151	AE1-145	1.6157	Adder	1.9
939621	AE1-192 C O1	3.7976	Adder	4.47
939622	AE1-192 E O1	1.8584	Adder	2.19
941021	AE2-093 C	1.7664	Adder	2.08
941022	AE2-093 E	2.8066	Adder	3.3
941181	AE2-112 C	0.8103	50/50	0.8103
941182	AE2-112 E	1.3220	50/50	1.3220
942441	AE2-257 C	2.6286	Adder	3.09
942442	AE2-257 E	6.9299	Adder	8.15
943361	AF1-007 C	0.1510	Adder	0.18
943362	AF1-007 E	0.4290	Adder	0.5
943441	AF1-015 C	0.5649	Adder	0.66
943442	AF1-015 E	0.7801	Adder	0.92
943651	AF1-036 C	1.0536	50/50	1.0536
943652	AF1-036 E	1.4550	50/50	1.4550
944921	AF1-157 C O1	1.2056	Adder	1.42
944922	AF1-157 E O1	0.8038	Adder	0.95
945661	AF1-231 C	0.6141	Adder	0.72
945662	AF1-231 E	0.9211	Adder	1.08
945781	AF1-243	0.4040	Adder	0.48
945791	AF1-244	0.6483	Adder	0.76
945931	AF1-258	0.2611	Adder	0.31
945941	AF1-259	0.0983	50/50	0.0983
946041	AF1-269 (Withdrawn : 05/12/2020)	0.9195	Adder	1.08
957611	AF2-055 C	1.4989	Adder	3.33
957612	AF2-055 E	0.6424	Adder	1.43
957661	AF2-060	0.3853	Adder	0.86
957671	AF2-061 O2	1.7123	Adder	3.8
958151	AF2-109 C	1.3044	50/50	1.3044
958152	AF2-109 E	1.3044	50/50	1.3044
959021	AF2-193 C O2	4.9600	Adder	11.01
959022	AF2-193 E O2	13.3794	Adder	29.7
959031	AF2-194 C O2	4.9600	Adder	11.01
959032	AF2-194 E O2	13.3794	Adder	29.7
959051	AF2-196 C	0.3799	Adder	0.84
959052	AF2-196 E	0.8865	Adder	1.97
959161	AF2-207 C O2	0.8681	Adder	1.93
959162	AF2-207 E O2	1.3021	Adder	2.89
959173	AF2-208 BAT	21.6196	50/50	21.6196
959571	AF2-248 C	0.1462	Adder	0.32
959572	AF2-248 E	0.1635	Adder	0.36
959581	AF2-249 C	0.0258	Adder	0.06
959582	AF2-249 E	0.1032	Adder	0.23
959591	AF2-250 C	0.0473	Adder	0.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959592	AF2-250 E	0.0366	Adder	0.08
960221	AF2-313 C	1.5608	50/50	1.5608
960222	AF2-313 E	0.8849	50/50	0.8849
960341	AF2-325 C	0.1881	Adder	0.42
960342	AF2-325 E	0.2598	Adder	0.58
960671	AF2-358 C O2	2.6962	Adder	5.98
960672	AF2-358 E O2	1.7975	Adder	3.99
960871	AF2-378 C	0.0496	Adder	0.11
960872	AF2-378 E	0.0688	Adder	0.15
960881	AF2-379 C	0.0705	Adder	0.16
960882	AF2-379 E	0.0972	Adder	0.22
960941	AF2-385 C O2	2.0552	Adder	4.56
960942	AF2-385 E O2	1.1695	Adder	2.6
960961	AF2-387 C O2	3.2680	Adder	7.25
960962	AF2-387 E O2	1.6389	Adder	3.64
961181	AF2-409 O2	4.4059	Adder	9.78
NEWTON	NEWTON	0.7006	Confirmed LTF	0.7006
FARMERCITY	FARMERCITY	0.0367	Confirmed LTF	0.0367
G-007A	G-007A	4.2124	Confirmed LTF	4.2124
VFT	VFT	9.6686	Confirmed LTF	9.6686
CALDERWOOD	CALDERWOOD	0.3390	Confirmed LTF	0.3390
PRAIRIE	PRAIRIE	1.6970	Confirmed LTF	1.6970
CHEOAH	CHEOAH	0.3418	Confirmed LTF	0.3418
EDWARDS	EDWARDS	0.2268	Confirmed LTF	0.2268
TILTON	TILTON	0.4082	Confirmed LTF	0.4082
GIBSON	GIBSON	0.3554	Confirmed LTF	0.3554
BLUEG	BLUEG	1.1301	Confirmed LTF	1.1301
TRIMBLE	TRIMBLE	0.3623	Confirmed LTF	0.3623
CATAWBA	CATAWBA	0.2478	Confirmed LTF	0.2478

14.5.9 Index 9

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99336332	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP24	breaker	804.0	108.28	130.18	DC	175.86

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.3090	50/50	0.3090
232003	CARTANZA	35.0801	50/50	35.0801
232405	W1-003 E	1.3046	Adder	1.53
232407	W1-004 E	1.3046	Adder	1.53
232409	W1-005 E	1.3046	Adder	1.53
232411	W1-006 E	1.3046	Adder	1.53
232412	X1-032 E	1.1410	Adder	1.34
232418	X3-008 E	2.9466	Adder	3.47
232423	X3-066 E	0.5928	Adder	0.7
232425	Y1-079 E	1.0454	Adder	1.23
232427	Y1-080 E	0.5284	Adder	0.62
232429	Y3-058 E	2.5845	Adder	3.04
232432	Z2-076 C	0.2520	50/50	0.2520
232433	Z2-076 E	0.7361	50/50	0.7361
232434	Z2-077 C	0.2520	50/50	0.2520
232435	Z2-077 E	0.7361	50/50	0.7361
232436	AB1-176 C	0.2406	Adder	0.28
232616	GEN FOOD	1.7245	50/50	1.7245
232851	DUP-SFR1	0.6094	50/50	0.6094
232901	NORTHST	5.2189	50/50	5.2189
232904	IR4	26.9780	50/50	26.9780
232920	IR10	1.0356	50/50	1.0356
232921	TASLEY2G	1.2895	50/50	1.2895
232922	MR3 (Deactivation : 01/06/2021)	67.0885	50/50	67.0885
917082	Z2-012 E	3.5969	Adder	4.23
919831	AA2-069 (Suspended)	296.6362	50/50	296.6362
923282	AB1-137 C	1.5610	50/50	1.5610
923283	AB1-137 E	0.6690	50/50	0.6690
923322	AB1-141 C OP	2.0896	Adder	2.46
923323	AB1-141 E OP	0.9751	Adder	1.15
923332	AB1-142 C OP	2.0896	Adder	2.46
923603	AB1-176 E	0.3968	Adder	0.47
923921	AB2-032 C	2.1051	Adder	2.48
923922	AB2-032 E	0.9906	Adder	1.17
923951	AB2-036 C	5.8419	Adder	6.87
923952	AB2-036 E	9.5580	Adder	11.24
923961	AB2-037 C	12.7658	Adder	15.02
923962	AB2-037 E	20.8547	Adder	24.53
924681	AB2-120 C OP	12.9827	50/50	12.9827
924682	AB2-120 E OP	21.1823	50/50	21.1823
924781	AB2-130 C OP	11.1022	50/50	11.1022

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924782	AB2-130 E OP	18.1140	50/50	18.1140
924801	AB2-133 C OP	3.6875	Adder	4.34
924802	AB2-133 E OP	4.6768	Adder	5.5
924821	AB2-135 C	5.2881	Adder	6.22
924822	AB2-135 E	6.0309	Adder	7.1
924831	AB2-136 C	6.1379	Adder	7.22
924832	AB2-136 E	6.5091	Adder	7.66
924971	AB2-153 C	1.1764	Adder	1.38
924972	AB2-153 E	1.9193	Adder	2.26
925151	AB2-172 C OP	4.5149	Adder	5.31
925152	AB2-172 E OP	7.3664	Adder	8.67
925261	AB2-180 C	3.8907	Adder	4.58
925262	AB2-180 E	1.6674	Adder	1.96
925271	AB2-185 C OP	2.3605	Adder	2.78
925272	AB2-185 E OP	1.0116	Adder	1.19
926131	AC1-091 C	2.1565	Adder	2.54
926132	AC1-091 E	3.5367	Adder	4.16
926141	AC1-092 C	2.1565	Adder	2.54
926142	AC1-092 E	3.5367	Adder	4.16
926151	AC1-093 C	2.0415	Adder	2.4
926152	AC1-093 E	3.3642	Adder	3.96
926161	AC1-094 C	1.7252	Adder	2.03
926162	AC1-094 E	2.8466	Adder	3.35
927031	AC1-190 C	8.3773	Adder	9.86
927032	AC1-190 E	3.5903	Adder	4.22
927191	AC1-213 C	0.9101	Adder	1.07
927192	AC1-213 E	0.5973	Adder	0.7
930201	AB1-056 C	24.3348	50/50	24.3348
930202	AB1-056 E	69.3014	50/50	69.3014
930881	AB1-137 C	1.5610	50/50	1.5610
930882	AB1-137 E	0.6690	50/50	0.6690
930932	AB1-142 E OP	0.9751	Adder	1.15
932161	AC2-023 C	7.2429	Adder	8.52
932162	AC2-023 E	5.2750	Adder	6.21
933631	AC2-185 C	4.3706	Adder	5.14
933632	AC2-185 E	7.1309	Adder	8.39
933641	AC2-186 C	6.6329	50/50	6.6329
933642	AC2-186 E	10.8221	50/50	10.8221
936611	AD2-076 C O1	2.8243	Adder	3.32
936612	AD2-076 E O1	4.6081	Adder	5.42
938651	AE1-087 C	3.8020	Adder	4.47
938652	AE1-087 E	0.9505	Adder	1.12
938891	AE1-117 C O1	15.4231	50/50	15.4231
938892	AE1-117 E O1	41.0662	50/50	41.0662
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	15.4123	50/50	15.4123
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	41.0375	50/50	41.0375
939151	AE1-145	6.8344	50/50	6.8344
939621	AE1-192 C O1	13.6333	Adder	16.04
939622	AE1-192 E O1	6.6716	Adder	7.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941021	AE2-093 C	3.6397	Adder	4.28
941022	AE2-093 E	5.7829	Adder	6.8
941181	AE2-112 C	0.9799	Adder	1.15
941182	AE2-112 E	1.5987	Adder	1.88
942441	AE2-257 C	12.2951	50/50	12.2951
942442	AE2-257 E	32.4145	50/50	32.4145
943361	AF1-007 C	0.7180	50/50	0.7180
943362	AF1-007 E	2.0405	50/50	2.0405
943441	AF1-015 C	1.1640	Adder	1.37
943442	AF1-015 E	1.6074	Adder	1.89
943651	AF1-036 C	1.2741	Adder	1.5
943652	AF1-036 E	1.7595	Adder	2.07
944921	AF1-157 C O1	5.3508	50/50	5.3508
944922	AF1-157 E O1	3.5672	50/50	3.5672
945661	AF1-231 C	2.2040	Adder	2.59
945662	AF1-231 E	3.3060	Adder	3.89
945781	AF1-243	1.4504	Adder	1.71
945791	AF1-244	2.2732	Adder	2.67
945931	AF1-258	0.8893	Adder	1.05
945941	AF1-259	0.1275	Adder	0.15
946041	AF1-269 (Withdrawn : 05/12/2020)	2.7681	Adder	3.26
957611	AF2-055 C	5.3808	Adder	11.94
957612	AF2-055 E	2.3061	Adder	5.12
957661	AF2-060	3.0755	50/50	3.0755
957671	AF2-061 O2	13.6812	50/50	13.6812
958151	AF2-109 C	0.7945	Adder	1.76
958152	AF2-109 E	0.7945	Adder	1.76
959021	AF2-193 C O2	47.5619	50/50	47.5619
959022	AF2-193 E O2	128.2973	50/50	128.2973
959031	AF2-194 C O2	47.5619	50/50	47.5619
959032	AF2-194 E O2	128.2973	50/50	128.2973
959051	AF2-196 C	3.3532	50/50	3.3532
959052	AF2-196 E	7.8242	50/50	7.8242
959161	AF2-207 C O2	2.9803	Adder	6.62
959162	AF2-207 E O2	4.4704	Adder	9.92
959571	AF2-248 C	0.5134	Adder	1.14
959572	AF2-248 E	0.5738	Adder	1.27
959581	AF2-249 C	0.0906	Adder	0.2
959582	AF2-249 E	0.3624	Adder	0.8
959591	AF2-250 C	0.1661	Adder	0.37
959592	AF2-250 E	0.1284	Adder	0.29
960221	AF2-313 C	1.0726	Adder	2.38
960222	AF2-313 E	0.6081	Adder	1.35
960341	AF2-325 C	0.5432	Adder	1.21
960342	AF2-325 E	0.7501	Adder	1.67
960671	AF2-358 C O2	7.6854	Adder	17.06
960672	AF2-358 E O2	5.1236	Adder	11.37
960871	AF2-378 C	0.1447	Adder	0.32
960872	AF2-378 E	0.2007	Adder	0.45
960881	AF2-379 C	0.2454	Adder	0.54
960882	AF2-379 E	0.3382	Adder	0.75
960941	AF2-385 C O2	7.2289	Adder	16.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960942	AF2-385 E O2	4.1135	Adder	9.13
960961	AF2-387 C O2	6.2125	Adder	13.79
960962	AF2-387 E O2	3.1156	Adder	6.92
961181	AF2-409 O2	11.9067	Adder	26.43
NEWTON	NEWTON	0.3804	Confirmed LTF	0.3804
FARMERCITY	FARMERCITY	0.0198	Confirmed LTF	0.0198
CALDERWOOD	CALDERWOOD	0.1754	Confirmed LTF	0.1754
NY	NY	0.2555	Confirmed LTF	0.2555
PRAIRIE	PRAIRIE	0.9144	Confirmed LTF	0.9144
O-066	O-066	3.3600	Confirmed LTF	3.3600
CHEOAH	CHEOAH	0.1767	Confirmed LTF	0.1767
EDWARDS	EDWARDS	0.1239	Confirmed LTF	0.1239
TILTON	TILTON	0.2230	Confirmed LTF	0.2230
G-007	G-007	0.5595	Confirmed LTF	0.5595
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.1933	Confirmed LTF	0.1933
BLUEG	BLUEG	0.6145	Confirmed LTF	0.6145
TRIMBLE	TRIMBLE	0.1970	Confirmed LTF	0.1970
CATAWBA	CATAWBA	0.1228	Confirmed LTF	0.1228

14.5.10 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
101765802	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FS A-A	tower	348.0	104.86	114.49	DC	75.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.5398	50/50	0.5398
232405	W1-003 E	0.9090	50/50	0.9090
232406	W1-004 FULL	0.5398	50/50	0.5398
232407	W1-004 E	0.9090	50/50	0.9090
232408	W1-005 C	0.5398	50/50	0.5398
232409	W1-005 E	0.9090	50/50	0.9090
232410	W1-006 C	0.5398	50/50	0.5398
232411	W1-006 E	0.9090	50/50	0.9090
232412	X1-032 E	0.8192	50/50	0.8192
232417	X3-008 C	0.3307	50/50	0.3307
232418	X3-008 E	3.1277	50/50	3.1277
232422	X3-066 FULL	0.1653	50/50	0.1653
232423	X3-066 E	1.5632	50/50	1.5632
232424	Y1-079 C	0.2436	50/50	0.2436
232425	Y1-079 E	2.3039	50/50	2.3039
232426	Y1-080 FULL	0.0519	50/50	0.0519
232427	Y1-080 E	0.4932	50/50	0.4932
232428	Y3-058 C	0.2078	50/50	0.2078
232429	Y3-058 E	1.9655	50/50	1.9655
232433	Z2-076 E	0.3208	Adder	0.38
232435	Z2-077 E	0.3208	Adder	0.38
232436	AB1-176 C	0.6345	50/50	0.6345
232813	VAUGHN	0.1155	50/50	0.1155
232902	EASTMUNI	3.7067	50/50	3.7067
232907	VN8	5.9640	50/50	5.9640
232910	NRG_G1	1.8200	50/50	1.8200
232911	NRG_G2	1.8200	50/50	1.8200
232919	VN10	0.4079	50/50	0.4079
232922	MR3 (Deactivation : 01/06/2021)	9.0862	Adder	10.69
232926	CRISFLD1	0.3545	50/50	0.3545
293670	O-025 C	0.2133	50/50	0.2133
917082	Z2-012 E	2.1263	Adder	2.5
918831	AA1-102	1.3293	50/50	1.3293
919831	AA2-069 (Suspended)	40.1751	Adder	47.26
923282	AB1-137 C	0.6591	Adder	0.78
923283	AB1-137 E	0.2825	Adder	0.33
923322	AB1-141 C OP	5.7565	50/50	5.7565
923323	AB1-141 E OP	2.6864	50/50	2.6864
923332	AB1-142 C OP	5.7565	50/50	5.7565
923603	AB1-176 E	1.0463	50/50	1.0463
923921	AB2-032 C	5.7992	50/50	5.7992

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923922	AB2-032 E	2.7290	50/50	2.7290
923951	AB2-036 C	12.6924	50/50	12.6924
923952	AB2-036 E	20.7661	50/50	20.7661
924681	AB2-120 C OP	6.5091	Adder	7.66
924682	AB2-120 E OP	10.6201	Adder	12.49
924781	AB2-130 C OP	5.4762	Adder	6.44
924782	AB2-130 E OP	8.9348	Adder	10.51
924801	AB2-133 C OP	11.5595	50/50	11.5595
924802	AB2-133 E OP	14.6609	50/50	14.6609
924821	AB2-135 C	12.3188	50/50	12.3188
924822	AB2-135 E	14.0492	50/50	14.0492
924831	AB2-136 C	5.9522	50/50	5.9522
924832	AB2-136 E	6.3123	50/50	6.3123
924971	AB2-153 C	3.2407	50/50	3.2407
924972	AB2-153 E	5.2875	50/50	5.2875
925151	AB2-172 C OP	4.7924	50/50	4.7924
925152	AB2-172 E OP	7.8191	50/50	7.8191
925251	AB2-179 C OP	-9.1300	Adder	-10.74
925261	AB2-180 C	2.9588	50/50	2.9588
925262	AB2-180 E	1.2680	50/50	1.2680
925271	AB2-185 C OP	5.2023	50/50	5.2023
925272	AB2-185 E OP	2.2295	50/50	2.2295
926131	AC1-091 C	0.6416	Adder	0.75
926132	AC1-091 E	1.0523	Adder	1.24
926141	AC1-092 C	0.6416	Adder	0.75
926142	AC1-092 E	1.0523	Adder	1.24
926151	AC1-093 C	0.6074	Adder	0.71
926152	AC1-093 E	1.0010	Adder	1.18
926161	AC1-094 C	0.5133	Adder	0.6
926162	AC1-094 E	0.8470	Adder	1.0
927031	AC1-190 C	8.7532	50/50	8.7532
927032	AC1-190 E	3.7514	50/50	3.7514
927191	AC1-213 C	0.6596	50/50	0.6596
927192	AC1-213 E	0.4328	50/50	0.4328
930201	AB1-056 C	9.9441	Adder	11.7
930202	AB1-056 E	28.3190	Adder	33.32
930881	AB1-137 C	0.6591	Adder	0.78
930882	AB1-137 E	0.2825	Adder	0.33
930932	AB1-142 E OP	2.6864	50/50	2.6864
932161	AC2-023 C	5.6983	50/50	5.6983
932162	AC2-023 E	4.1501	50/50	4.1501
933631	AC2-185 C	1.3004	Adder	1.53
933632	AC2-185 E	2.1217	Adder	2.5
933641	AC2-186 C	3.1357	Adder	3.69
933642	AC2-186 E	5.1161	Adder	6.02
936611	AD2-076 C O1	8.1874	50/50	8.1874
936612	AD2-076 E O1	13.3584	50/50	13.3584
938651	AE1-087 C	4.0357	50/50	4.0357
938652	AE1-087 E	1.0089	50/50	1.0089
938891	AE1-117 C O1	6.5135	Adder	7.66
938892	AE1-117 E O1	17.3433	Adder	20.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	6.5188	Adder	7.67
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	17.3573	Adder	20.42
939151	AE1-145	3.4253	Adder	4.03
939621	AE1-192 C O1	8.0595	Adder	9.48
939622	AE1-192 E O1	3.9440	Adder	4.64
941021	AE2-093 C	5.9738	50/50	5.9738
941022	AE2-093 E	9.4914	50/50	9.4914
941181	AE2-112 C	2.8405	50/50	2.8405
941182	AE2-112 E	4.6345	50/50	4.6345
942441	AE2-257 C	5.1662	Adder	6.08
942442	AE2-257 E	13.6201	Adder	16.02
943361	AF1-007 C	0.2934	Adder	0.35
943362	AF1-007 E	0.8338	Adder	0.98
943441	AF1-015 C	1.9104	50/50	1.9104
943442	AF1-015 E	2.6382	50/50	2.6382
943651	AF1-036 C	3.6936	50/50	3.6936
943652	AF1-036 E	5.1006	50/50	5.1006
944921	AF1-157 C O1	2.4567	Adder	2.89
944922	AF1-157 E O1	1.6378	Adder	1.93
945661	AF1-231 C	1.3034	Adder	1.53
945662	AF1-231 E	1.9552	Adder	2.3
945781	AF1-243	0.8574	Adder	1.01
945791	AF1-244	1.6440	50/50	1.6440
945931	AF1-258	0.6763	50/50	0.6763
945941	AF1-259	0.3362	50/50	0.3362
946041	AF1-269 (Withdrawn : 05/12/2020)	2.5836	50/50	2.5836
957611	AF2-055 C	3.1809	Adder	7.06
957612	AF2-055 E	1.3633	Adder	3.03
957661	AF2-060	0.8169	Adder	1.81
957671	AF2-061 O2	3.6278	Adder	8.05
958151	AF2-109 C	4.6990	50/50	4.6990
958152	AF2-109 E	4.6990	50/50	4.6990
959021	AF2-193 C O2	9.1506	Adder	20.31
959022	AF2-193 E O2	24.6836	Adder	54.79
959031	AF2-194 C O2	9.1506	Adder	20.31
959032	AF2-194 E O2	24.6836	Adder	54.79
959051	AF2-196 C	0.7468	Adder	1.66
959052	AF2-196 E	1.7424	Adder	3.87
959161	AF2-207 C O2	4.2028	50/50	4.2028
959162	AF2-207 E O2	6.3041	50/50	6.3041
959571	AF2-248 C	0.6978	50/50	0.6978
959572	AF2-248 E	0.7799	50/50	0.7799
959581	AF2-249 C	0.1231	50/50	0.1231
959582	AF2-249 E	0.4926	50/50	0.4926
959591	AF2-250 C	0.2258	50/50	0.2258
959592	AF2-250 E	0.1745	50/50	0.1745
960221	AF2-313 C	5.3367	50/50	5.3367
960222	AF2-313 E	3.0255	50/50	3.0255

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960341	AF2-325 C	1.0261	50/50	1.0261
960342	AF2-325 E	1.4170	50/50	1.4170
960671	AF2-358 C O2	14.8320	50/50	14.8320
960672	AF2-358 E O2	9.8880	50/50	9.8880
960871	AF2-378 C	0.2686	50/50	0.2686
960872	AF2-378 E	0.3727	50/50	0.3727
960881	AF2-379 C	0.3393	50/50	0.3393
960882	AF2-379 E	0.4676	50/50	0.4676
960941	AF2-385 C O2	9.7813	50/50	9.7813
960942	AF2-385 E O2	5.5659	50/50	5.5659
960961	AF2-387 C O2	21.8288	50/50	21.8288
960962	AF2-387 E O2	10.9472	50/50	10.9472
961181	AF2-409 O2	24.1230	50/50	24.1230
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0097	Confirmed LTF	0.0097
CALDERWOOD	CALDERWOOD	0.0870	Confirmed LTF	0.0870
NY	NY	0.0603	Confirmed LTF	0.0603
PRAIRIE	PRAIRIE	0.4494	Confirmed LTF	0.4494
O-066	O-066	0.5309	Confirmed LTF	0.5309
CHEOAH	CHEOAH	0.0876	Confirmed LTF	0.0876
EDWARDS	EDWARDS	0.0609	Confirmed LTF	0.0609
TILTON	TILTON	0.1096	Confirmed LTF	0.1096
G-007	G-007	0.0530	Confirmed LTF	0.0530
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0619	Confirmed LTF	0.0619

14.5.11 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 %	ACID C	MW IMPACT
101765808	232106	MIDLTNT P	DP&L	232104	MT PLSN T	DP&L	1	DPL_P7_1_DBL_1NCB_FSA-A	tower	348.0	100.74	110.37	DC	75.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.5398	50/50	0.5398
232405	W1-003 E	0.9090	50/50	0.9090
232406	W1-004 FULL	0.5398	50/50	0.5398
232407	W1-004 E	0.9090	50/50	0.9090
232408	W1-005 C	0.5398	50/50	0.5398
232409	W1-005 E	0.9090	50/50	0.9090
232410	W1-006 C	0.5398	50/50	0.5398
232411	W1-006 E	0.9090	50/50	0.9090
232412	X1-032 E	0.8192	50/50	0.8192
232417	X3-008 C	0.3307	50/50	0.3307
232418	X3-008 E	3.1277	50/50	3.1277
232422	X3-066 FULL	0.1653	50/50	0.1653
232423	X3-066 E	1.5632	50/50	1.5632
232424	Y1-079 C	0.2436	50/50	0.2436
232425	Y1-079 E	2.3039	50/50	2.3039
232426	Y1-080 FULL	0.0519	50/50	0.0519
232427	Y1-080 E	0.4932	50/50	0.4932
232428	Y3-058 C	0.2078	50/50	0.2078
232429	Y3-058 E	1.9655	50/50	1.9655
232433	Z2-076 E	0.3208	Adder	0.38
232435	Z2-077 E	0.3208	Adder	0.38
232436	AB1-176 C	0.6345	50/50	0.6345
232813	VAUGHN	0.1155	50/50	0.1155
232902	EASTMUNI	3.7067	50/50	3.7067
232907	VN8	5.9640	50/50	5.9640
232910	NRG_G1	1.8200	50/50	1.8200
232911	NRG_G2	1.8200	50/50	1.8200
232919	VN10	0.4079	50/50	0.4079
232922	MR3 (Deactivation : 01/06/2021)	9.0862	Adder	10.69
232926	CRISFLD1	0.3545	50/50	0.3545
293670	O-025 C	0.2133	50/50	0.2133
917082	Z2-012 E	2.1263	Adder	2.5
918831	AA1-102	1.3293	50/50	1.3293
919831	AA2-069 (Suspended)	40.1751	Adder	47.26
923282	AB1-137 C	0.6591	Adder	0.78
923283	AB1-137 E	0.2825	Adder	0.33
923322	AB1-141 C OP	5.7565	50/50	5.7565
923323	AB1-141 E OP	2.6864	50/50	2.6864
923332	AB1-142 C OP	5.7565	50/50	5.7565
923603	AB1-176 E	1.0463	50/50	1.0463
923921	AB2-032 C	5.7992	50/50	5.7992

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923922	AB2-032 E	2.7290	50/50	2.7290
923951	AB2-036 C	12.6924	50/50	12.6924
923952	AB2-036 E	20.7661	50/50	20.7661
924681	AB2-120 C OP	6.5091	Adder	7.66
924682	AB2-120 E OP	10.6201	Adder	12.49
924781	AB2-130 C OP	5.4762	Adder	6.44
924782	AB2-130 E OP	8.9348	Adder	10.51
924801	AB2-133 C OP	11.5595	50/50	11.5595
924802	AB2-133 E OP	14.6609	50/50	14.6609
924821	AB2-135 C	12.3188	50/50	12.3188
924822	AB2-135 E	14.0492	50/50	14.0492
924831	AB2-136 C	5.9522	50/50	5.9522
924832	AB2-136 E	6.3123	50/50	6.3123
924971	AB2-153 C	3.2407	50/50	3.2407
924972	AB2-153 E	5.2875	50/50	5.2875
925151	AB2-172 C OP	4.7924	50/50	4.7924
925152	AB2-172 E OP	7.8191	50/50	7.8191
925251	AB2-179 C OP	26.8588	50/50	26.8588
925252	AB2-179 E OP	8.8577	50/50	8.8577
925261	AB2-180 C	2.9588	50/50	2.9588
925262	AB2-180 E	1.2680	50/50	1.2680
925271	AB2-185 C OP	5.2023	50/50	5.2023
925272	AB2-185 E OP	2.2295	50/50	2.2295
927031	AC1-190 C	8.7532	50/50	8.7532
927032	AC1-190 E	3.7514	50/50	3.7514
927191	AC1-213 C	0.6596	50/50	0.6596
927192	AC1-213 E	0.4328	50/50	0.4328
930201	AB1-056 C	9.9441	Adder	11.7
930202	AB1-056 E	28.3190	Adder	33.32
930881	AB1-137 C	0.6591	Adder	0.78
930882	AB1-137 E	0.2825	Adder	0.33
930932	AB1-142 E OP	2.6864	50/50	2.6864
932161	AC2-023 C	5.6983	50/50	5.6983
932162	AC2-023 E	4.1501	50/50	4.1501
933641	AC2-186 C	3.1357	Adder	3.69
933642	AC2-186 E	5.1161	Adder	6.02
936611	AD2-076 C O1	8.1874	50/50	8.1874
936612	AD2-076 E O1	13.3584	50/50	13.3584
938651	AE1-087 C	4.0357	50/50	4.0357
938652	AE1-087 E	1.0089	50/50	1.0089
938891	AE1-117 C O1	6.5135	Adder	7.66
938892	AE1-117 E O1	17.3433	Adder	20.4
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	6.5188	Adder	7.67
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	17.3573	Adder	20.42
939151	AE1-145	3.4253	Adder	4.03
939621	AE1-192 C O1	8.0595	Adder	9.48
939622	AE1-192 E O1	3.9440	Adder	4.64
941021	AE2-093 C	5.9738	50/50	5.9738
941022	AE2-093 E	9.4914	50/50	9.4914

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941181	AE2-112 C	2.8405	50/50	2.8405
941182	AE2-112 E	4.6345	50/50	4.6345
942441	AE2-257 C	5.1662	Adder	6.08
942442	AE2-257 E	13.6201	Adder	16.02
943361	AF1-007 C	0.2934	Adder	0.35
943362	AF1-007 E	0.8338	Adder	0.98
943441	AF1-015 C	1.9104	50/50	1.9104
943442	AF1-015 E	2.6382	50/50	2.6382
943651	AF1-036 C	3.6936	50/50	3.6936
943652	AF1-036 E	5.1006	50/50	5.1006
944921	AF1-157 C O1	2.4567	Adder	2.89
944922	AF1-157 E O1	1.6378	Adder	1.93
945661	AF1-231 C	1.3034	Adder	1.53
945662	AF1-231 E	1.9552	Adder	2.3
945781	AF1-243	0.8574	Adder	1.01
945791	AF1-244	1.6440	50/50	1.6440
945931	AF1-258	0.6763	50/50	0.6763
945941	AF1-259	0.3362	50/50	0.3362
946041	AF1-269 (Withdrawn : 05/12/2020)	2.5836	50/50	2.5836
957611	AF2-055 C	3.1809	Adder	7.06
957612	AF2-055 E	1.3633	Adder	3.03
957661	AF2-060	0.8169	Adder	1.81
957671	AF2-061 O2	3.6278	Adder	8.05
958151	AF2-109 C	4.6990	50/50	4.6990
958152	AF2-109 E	4.6990	50/50	4.6990
959021	AF2-193 C O2	9.1506	Adder	20.31
959022	AF2-193 E O2	24.6836	Adder	54.79
959031	AF2-194 C O2	9.1506	Adder	20.31
959032	AF2-194 E O2	24.6836	Adder	54.79
959051	AF2-196 C	0.7468	Adder	1.66
959052	AF2-196 E	1.7424	Adder	3.87
959161	AF2-207 C O2	4.2028	50/50	4.2028
959162	AF2-207 E O2	6.3041	50/50	6.3041
959571	AF2-248 C	0.6978	50/50	0.6978
959572	AF2-248 E	0.7799	50/50	0.7799
959581	AF2-249 C	0.1231	50/50	0.1231
959582	AF2-249 E	0.4926	50/50	0.4926
959591	AF2-250 C	0.2258	50/50	0.2258
959592	AF2-250 E	0.1745	50/50	0.1745
960221	AF2-313 C	5.3367	50/50	5.3367
960222	AF2-313 E	3.0255	50/50	3.0255
960341	AF2-325 C	1.0261	50/50	1.0261
960342	AF2-325 E	1.4170	50/50	1.4170
960671	AF2-358 C O2	14.8320	50/50	14.8320
960672	AF2-358 E O2	9.8880	50/50	9.8880
960871	AF2-378 C	0.2686	50/50	0.2686
960872	AF2-378 E	0.3727	50/50	0.3727
960881	AF2-379 C	0.3393	50/50	0.3393
960882	AF2-379 E	0.4676	50/50	0.4676
960941	AF2-385 C O2	9.7813	50/50	9.7813
960942	AF2-385 E O2	5.5659	50/50	5.5659
960961	AF2-387 C O2	21.8288	50/50	21.8288

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960962	AF2-387 E O2	10.9472	50/50	10.9472
961181	AF2-409 O2	24.1230	50/50	24.1230
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0097	Confirmed LTF	0.0097
CALDERWOOD	CALDERWOOD	0.0870	Confirmed LTF	0.0870
NY	NY	0.0603	Confirmed LTF	0.0603
PRAIRIE	PRAIRIE	0.4494	Confirmed LTF	0.4494
O-066	O-066	0.5309	Confirmed LTF	0.5309
CHEOAH	CHEOAH	0.0876	Confirmed LTF	0.0876
EDWARDS	EDWARDS	0.0609	Confirmed LTF	0.0609
TILTON	TILTON	0.1096	Confirmed LTF	0.1096
G-007	G-007	0.0530	Confirmed LTF	0.0530
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0619	Confirmed LTF	0.0619

14.5.12 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
101765792	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A-A	tower	348.0	110.05	119.68	DC	75.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.5398	50/50	0.5398
232405	W1-003 E	0.9090	50/50	0.9090
232406	W1-004 FULL	0.5398	50/50	0.5398
232407	W1-004 E	0.9090	50/50	0.9090
232408	W1-005 C	0.5398	50/50	0.5398
232409	W1-005 E	0.9090	50/50	0.9090
232410	W1-006 C	0.5398	50/50	0.5398
232411	W1-006 E	0.9090	50/50	0.9090
232412	X1-032 E	0.8192	50/50	0.8192
232417	X3-008 C	0.3307	50/50	0.3307
232418	X3-008 E	3.1277	50/50	3.1277
232422	X3-066 FULL	0.1653	50/50	0.1653
232423	X3-066 E	1.5632	50/50	1.5632
232424	Y1-079 C	0.2436	50/50	0.2436
232425	Y1-079 E	2.3039	50/50	2.3039
232426	Y1-080 FULL	0.0519	50/50	0.0519
232427	Y1-080 E	0.4932	50/50	0.4932
232428	Y3-058 C	0.2078	50/50	0.2078
232429	Y3-058 E	1.9655	50/50	1.9655
232433	Z2-076 E	0.3208	Adder	0.38
232435	Z2-077 E	0.3208	Adder	0.38
232436	AB1-176 C	0.6345	50/50	0.6345
232813	VAUGHN	0.1155	50/50	0.1155
232902	EASTMUNI	3.7067	50/50	3.7067
232907	VN8	5.9640	50/50	5.9640
232910	NRG_G1	1.8200	50/50	1.8200
232911	NRG_G2	1.8200	50/50	1.8200
232919	VN10	0.4079	50/50	0.4079
232922	MR3 (Deactivation : 01/06/2021)	9.0862	Adder	10.69
232926	CRISFLD1	0.3545	50/50	0.3545
293670	O-025 C	0.2133	50/50	0.2133
917082	Z2-012 E	2.1263	Adder	2.5
918831	AA1-102	1.3293	50/50	1.3293
919831	AA2-069 (Suspended)	40.1751	Adder	47.26
923282	AB1-137 C	0.6591	Adder	0.78
923283	AB1-137 E	0.2825	Adder	0.33
923322	AB1-141 C OP	5.7565	50/50	5.7565
923323	AB1-141 E OP	2.6864	50/50	2.6864
923332	AB1-142 C OP	5.7565	50/50	5.7565
923603	AB1-176 E	1.0463	50/50	1.0463
923921	AB2-032 C	5.7992	50/50	5.7992

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923922	AB2-032 E	2.7290	50/50	2.7290
923951	AB2-036 C	12.6924	50/50	12.6924
923952	AB2-036 E	20.7661	50/50	20.7661
924681	AB2-120 C OP	6.5091	Adder	7.66
924682	AB2-120 E OP	10.6201	Adder	12.49
924781	AB2-130 C OP	5.4762	Adder	6.44
924782	AB2-130 E OP	8.9348	Adder	10.51
924801	AB2-133 C OP	11.5595	50/50	11.5595
924802	AB2-133 E OP	14.6609	50/50	14.6609
924821	AB2-135 C	12.3188	50/50	12.3188
924822	AB2-135 E	14.0492	50/50	14.0492
924831	AB2-136 C	5.9522	50/50	5.9522
924832	AB2-136 E	6.3123	50/50	6.3123
924971	AB2-153 C	3.2407	50/50	3.2407
924972	AB2-153 E	5.2875	50/50	5.2875
925151	AB2-172 C OP	4.7924	50/50	4.7924
925152	AB2-172 E OP	7.8191	50/50	7.8191
925251	AB2-179 C OP	26.8588	50/50	26.8588
925252	AB2-179 E OP	8.8577	50/50	8.8577
925261	AB2-180 C	2.9588	50/50	2.9588
925262	AB2-180 E	1.2680	50/50	1.2680
925271	AB2-185 C OP	5.2023	50/50	5.2023
925272	AB2-185 E OP	2.2295	50/50	2.2295
927031	AC1-190 C	8.7532	50/50	8.7532
927032	AC1-190 E	3.7514	50/50	3.7514
927191	AC1-213 C	0.6596	50/50	0.6596
927192	AC1-213 E	0.4328	50/50	0.4328
930201	AB1-056 C	9.9441	Adder	11.7
930202	AB1-056 E	28.3190	Adder	33.32
930881	AB1-137 C	0.6591	Adder	0.78
930882	AB1-137 E	0.2825	Adder	0.33
930932	AB1-142 E OP	2.6864	50/50	2.6864
932161	AC2-023 C	5.6983	50/50	5.6983
932162	AC2-023 E	4.1501	50/50	4.1501
933641	AC2-186 C	3.1357	Adder	3.69
933642	AC2-186 E	5.1161	Adder	6.02
936611	AD2-076 C O1	8.1874	50/50	8.1874
936612	AD2-076 E O1	13.3584	50/50	13.3584
938651	AE1-087 C	4.0357	50/50	4.0357
938652	AE1-087 E	1.0089	50/50	1.0089
938891	AE1-117 C O1	6.5135	Adder	7.66
938892	AE1-117 E O1	17.3433	Adder	20.4
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	6.5188	Adder	7.67
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	17.3573	Adder	20.42
939151	AE1-145	3.4253	Adder	4.03
939621	AE1-192 C O1	8.0595	Adder	9.48
939622	AE1-192 E O1	3.9440	Adder	4.64
941021	AE2-093 C	5.9738	50/50	5.9738
941022	AE2-093 E	9.4914	50/50	9.4914

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941181	AE2-112 C	2.8405	50/50	2.8405
941182	AE2-112 E	4.6345	50/50	4.6345
942441	AE2-257 C	5.1662	Adder	6.08
942442	AE2-257 E	13.6201	Adder	16.02
943361	AF1-007 C	0.2934	Adder	0.35
943362	AF1-007 E	0.8338	Adder	0.98
943441	AF1-015 C	1.9104	50/50	1.9104
943442	AF1-015 E	2.6382	50/50	2.6382
943651	AF1-036 C	3.6936	50/50	3.6936
943652	AF1-036 E	5.1006	50/50	5.1006
944921	AF1-157 C O1	2.4567	Adder	2.89
944922	AF1-157 E O1	1.6378	Adder	1.93
945661	AF1-231 C	1.3034	Adder	1.53
945662	AF1-231 E	1.9552	Adder	2.3
945781	AF1-243	0.8574	Adder	1.01
945791	AF1-244	1.6440	50/50	1.6440
945931	AF1-258	0.6763	50/50	0.6763
945941	AF1-259	0.3362	50/50	0.3362
946041	AF1-269 (Withdrawn : 05/12/2020)	2.5836	50/50	2.5836
957611	AF2-055 C	3.1809	Adder	7.06
957612	AF2-055 E	1.3633	Adder	3.03
957661	AF2-060	0.8169	Adder	1.81
957671	AF2-061 O2	3.6278	Adder	8.05
958151	AF2-109 C	4.6990	50/50	4.6990
958152	AF2-109 E	4.6990	50/50	4.6990
959021	AF2-193 C O2	9.1506	Adder	20.31
959022	AF2-193 E O2	24.6836	Adder	54.79
959031	AF2-194 C O2	9.1506	Adder	20.31
959032	AF2-194 E O2	24.6836	Adder	54.79
959051	AF2-196 C	0.7468	Adder	1.66
959052	AF2-196 E	1.7424	Adder	3.87
959161	AF2-207 C O2	4.2028	50/50	4.2028
959162	AF2-207 E O2	6.3041	50/50	6.3041
959571	AF2-248 C	0.6978	50/50	0.6978
959572	AF2-248 E	0.7799	50/50	0.7799
959581	AF2-249 C	0.1231	50/50	0.1231
959582	AF2-249 E	0.4926	50/50	0.4926
959591	AF2-250 C	0.2258	50/50	0.2258
959592	AF2-250 E	0.1745	50/50	0.1745
960221	AF2-313 C	5.3367	50/50	5.3367
960222	AF2-313 E	3.0255	50/50	3.0255
960341	AF2-325 C	1.0261	50/50	1.0261
960342	AF2-325 E	1.4170	50/50	1.4170
960671	AF2-358 C O2	14.8320	50/50	14.8320
960672	AF2-358 E O2	9.8880	50/50	9.8880
960871	AF2-378 C	0.2686	50/50	0.2686
960872	AF2-378 E	0.3727	50/50	0.3727
960881	AF2-379 C	0.3393	50/50	0.3393
960882	AF2-379 E	0.4676	50/50	0.4676
960941	AF2-385 C O2	9.7813	50/50	9.7813
960942	AF2-385 E O2	5.5659	50/50	5.5659
960961	AF2-387 C O2	21.8288	50/50	21.8288

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960962	AF2-387 E O2	10.9472	50/50	10.9472
961181	AF2-409 O2	24.1230	50/50	24.1230
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0097	Confirmed LTF	0.0097
CALDERWOOD	CALDERWOOD	0.0870	Confirmed LTF	0.0870
NY	NY	0.0603	Confirmed LTF	0.0603
PRAIRIE	PRAIRIE	0.4494	Confirmed LTF	0.4494
O-066	O-066	0.5309	Confirmed LTF	0.5309
CHEOAH	CHEOAH	0.0876	Confirmed LTF	0.0876
EDWARDS	EDWARDS	0.0609	Confirmed LTF	0.0609
TILTON	TILTON	0.1096	Confirmed LTF	0.1096
G-007	G-007	0.0530	Confirmed LTF	0.0530
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0619	Confirmed LTF	0.0619

14.5.13 Index 13

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
101764696	232215	KENT	DP&L	232812	NMEREDTH	DP&L	1	DPL_P4-2_DP11	breaker	93.0	101.19	112.76	DC	23.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.2068	Adder	0.24
232407	W1-004 E	0.2068	Adder	0.24
232409	W1-005 E	0.2068	Adder	0.24
232411	W1-006 E	0.2068	Adder	0.24
232412	X1-032 E	0.1823	Adder	0.21
232429	Y3-058 E	0.4017	Adder	0.47
232433	Z2-076 E	0.0983	Adder	0.12
232435	Z2-077 E	0.0983	Adder	0.12
232813	VAUGHN	0.1279	50/50	0.1279
232899	W1-062	0.9333	50/50	0.9333
232900	DEMECSMY	0.9333	50/50	0.9333
232910	NRG_G1	2.3092	50/50	2.3092
232911	NRG_G2	2.3092	50/50	2.3092
917082	Z2-012 E	0.5697	Adder	0.67
923282	AB1-137 C	0.2078	Adder	0.24
923283	AB1-137 E	0.0891	Adder	0.1
923322	AB1-141 C OP	-1.0388	Adder	-1.22
923332	AB1-142 C OP	-1.0388	Adder	-1.22
923921	AB2-032 C	-1.0465	Adder	-1.23
924681	AB2-120 C OP	1.7468	Adder	2.06
924682	AB2-120 E OP	2.8500	Adder	3.35
924781	AB2-130 C OP	1.7505	Adder	2.06
924782	AB2-130 E OP	2.8561	Adder	3.36
924971	AB2-153 C	-0.5848	Adder	-0.69
925251	AB2-179 C OP	-2.0557	Adder	-2.42
925261	AB2-180 C	0.6048	Adder	0.71
925262	AB2-180 E	0.2592	Adder	0.3
926131	AC1-091 C	0.4457	Adder	0.52
926132	AC1-091 E	0.7309	Adder	0.86
926141	AC1-092 C	0.4457	Adder	0.52
926142	AC1-092 E	0.7309	Adder	0.86
926151	AC1-093 C	0.4219	Adder	0.5
926152	AC1-093 E	0.6953	Adder	0.82
926161	AC1-094 C	0.3565	Adder	0.42
926162	AC1-094 E	0.5883	Adder	0.69
927191	AC1-213 C	0.1456	Adder	0.17
927192	AC1-213 E	0.0956	Adder	0.11
930201	AB1-056 C	3.1070	Adder	3.66
930202	AB1-056 E	8.8483	Adder	10.41
930881	AB1-137 C	0.2078	Adder	0.24
930882	AB1-137 E	0.0891	Adder	0.1
933631	AC2-185 C	0.9032	Adder	1.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933632	AC2-185 E	1.4737	Adder	1.73
933641	AC2-186 C	2.7814	50/50	2.7814
933642	AC2-186 E	4.5381	50/50	4.5381
938891	AE1-117 C O1	2.0516	Adder	2.41
938892	AE1-117 E O1	5.4627	Adder	6.43
938901	AE1-118 C O1 (Withdrawn : 07/10/2020)	2.0509	Adder	2.41
938902	AE1-118 E O1 (Withdrawn : 07/10/2020)	5.4608	Adder	6.42
939151	AE1-145	0.9194	Adder	1.08
939621	AE1-192 C O1	2.1593	Adder	2.54
939622	AE1-192 E O1	1.0567	Adder	1.24
942441	AE2-257 C	1.6289	Adder	1.92
942442	AE2-257 E	4.2943	Adder	5.05
943361	AF1-007 C	0.0917	Adder	0.11
943362	AF1-007 E	0.2605	Adder	0.31
944921	AF1-157 C O1	0.7817	Adder	0.92
944922	AF1-157 E O1	0.5211	Adder	0.61
945661	AF1-231 C	0.3491	Adder	0.41
945662	AF1-231 E	0.5236	Adder	0.62
945781	AF1-243	0.2297	Adder	0.27
945791	AF1-244	0.3641	Adder	0.43
945931	AF1-258	0.1382	Adder	0.16
957611	AF2-055 C	0.8522	Adder	1.89
957612	AF2-055 E	0.3652	Adder	0.81
957661	AF2-060	0.2193	Adder	0.49
957671	AF2-061 O2	0.9751	Adder	2.16
958153	AF2-109 BAT	3.2376	50/50	3.2376
959021	AF2-193 C O2	2.8997	Adder	6.44
959022	AF2-193 E O2	7.8220	Adder	17.36
959031	AF2-194 C O2	2.8997	Adder	6.44
959032	AF2-194 E O2	7.8220	Adder	17.36
959051	AF2-196 C	0.2354	Adder	0.52
959052	AF2-196 E	0.5494	Adder	1.22
959161	AF2-207 C O2	0.4941	Adder	1.1
959162	AF2-207 E O2	0.7411	Adder	1.65
959571	AF2-248 C	0.0853	Adder	0.19
959572	AF2-248 E	0.0954	Adder	0.21
959581	AF2-249 C	0.0151	Adder	0.03
959582	AF2-249 E	0.0602	Adder	0.13
959591	AF2-250 C	0.0276	Adder	0.06
959592	AF2-250 E	0.0213	Adder	0.05
960881	AF2-379 C	0.0394	Adder	0.09
960882	AF2-379 E	0.0543	Adder	0.12
960941	AF2-385 C O2	1.2296	Adder	2.73
960942	AF2-385 E O2	0.6997	Adder	1.55
961181	AF2-409 O2	2.2845	Adder	5.07
NEWTON	NEWTON	0.0666	Confirmed LTF	0.0666
FARMERCITY	FARMERCITY	0.0035	Confirmed LTF	0.0035
CALDERWOOD	CALDERWOOD	0.0308	Confirmed LTF	0.0308
NY	NY	0.0188	Confirmed LTF	0.0188

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	0.1601	Confirmed LTF	0.1601
O-066	O-066	0.1411	Confirmed LTF	0.1411
CHEOAH	CHEOAH	0.0310	Confirmed LTF	0.0310
EDWARDS	EDWARDS	0.0217	Confirmed LTF	0.0217
TILTON	TILTON	0.0391	Confirmed LTF	0.0391
G-007	G-007	0.0104	Confirmed LTF	0.0104
GIBSON	GIBSON	0.0339	Confirmed LTF	0.0339
BLUEG	BLUEG	0.1076	Confirmed LTF	0.1076
TRIMBLE	TRIMBLE	0.0345	Confirmed LTF	0.0345
CATAWBA	CATAWBA	0.0221	Confirmed LTF	0.0221

14.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
PECO_P1-2_220-84	CONTINGENCY 'PECO_P1-2_220-84' /* \$ DELCO \$ 220-84 \$ LB TRIP BRANCH FROM BUS 213750 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 \$ DELCO \$ 220-84 \$ L END
DPL_P4-2_DP25B	CONTINGENCY 'DPL_P4-2_DP25B' /*CEDAR CREEK 230 BUS BREAKER TO MILFORD DISCONNECT BRANCH FROM BUS 232002 TO BUS 232004 CKT 1 /*CEDAR CK MILFORD 230 230 DISCONNECT BRANCH FROM BUS 232002 TO BUS 232108 CKT 1 /*CEDAR CK CEDAR CK 230 138 AT20 END
DPL_P7_1_DBL_1NCB_FSA-A	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA-A' /* #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
DPL_P4-2_DP11	CONTINGENCY 'DPL_P4-2_DP11' /*STEELE BUS BREAKER TO MILFORD DISCONNECT BRANCH FROM BUS 232004 TO BUS 232000 CKT 1 /*MILFORD STEELE 230 230 DISCONNECT BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 /*STEELE VIENNA 230 230 END
PECO_P1-2_220-04/* \$ DELCO \$ 220-04 \$ L	CONTINGENCY 'PECO_P1-2_220-04/* \$ DELCO \$ 220-04 \$ L' DISCONNECT BUS 213627 /* CHICHST1 230.00 FOULK8 230.00 \$ DELCO \$ 220-04 \$ L END
PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ 5012 \$ L' TRIP BRANCH FROM BUS 200064 TO BUS 200004 CKT 1 /* PCHBTM1S 500.00 CNASTONE 500.00 \$ CHESCO \$ 5012 \$ L END
CKT 23030B	CONTINGENCY 'CKT 23030B' OPEN LINE FROM BUS 232002 TO BUS 232013 CIRCUIT 1 /CEDAR CREEK - SILVER RUN 230 END

Contingency Name	Contingency Definition
CKT 23032B	CONTINGENCY 'CKT 23032B' OPEN LINE FROM BUS 232013 TO BUS 232003 CIRCUIT 1 /SILVER RUN - CARTANZA 230 END
PECO_P1-2_5038/* \$ CHESCO \$ 5038 \$ L	CONTINGENCY 'PECO_P1-2_5038/* \$ CHESCO \$ 5038 \$ L' TRIP BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 /* NFREEDOM 500.00 WINDSOR 500.00 \$ CHESCO \$ 5038 \$ L END
PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L	CONTINGENCY 'PECO_P1-2_220-43/* \$ DELCO \$ 220-43 \$ L' TRIP BRANCH FROM BUS 214221 TO BUS 213750 CKT 1 /* CHIREACT_43 230.00 LINWOOD 230.00 \$ DELCO \$ 220-43 \$ L END
PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	CONTINGENCY 'PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PEACH215 \$ STBK REMOVE MACHINE 1 FROM BUS 200034 /* PCHBTM 2 22.00 \$ CHESCO \$ PEACH215 \$ STBK END
PJM500_PS_P2-3_NFRD5_910	CONTINGENCY 'PJM500_PS_P2-3_NFRD5_910' DISCONNECT BRANCH FROM BUS 200012 TO BUS 219100 CKT 4 /* 500/230 KV TX NEW FREED TRIP LINE FROM BUS 200012 TO BUS 200028 CKT 1 /* 5038 NEW FREEDOM TO WINSOR END
PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ 5014 \$ L END
Base Case	
PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L	CONTINGENCY 'PECO_P1-2_220-97/* \$ DELCO \$ 220-97 \$ L' TRIP BRANCH FROM BUS 213750 TO BUS 214216 CKT 1 /* LINWOOD 230.00 POST 230.00 \$ DELCO \$ 220-97 \$ L END
DPL_P1_2_CKT 23015	CONTINGENCY 'DPL_P1_2_CKT 23015' OPEN LINE FROM BUS 231000 TO BUS 231001 CIRCUIT 1 /CLAYMONT - EDGE MOOR 230 END

Contingency Name	Contingency Definition
DPL_P4-2_DP24	CONTINGENCY 'DPL_P4-2_DP24' /*CEDAR CREEK BUS BREAKER TO SILVER RUN DISCONNECT BRANCH FROM BUS 232013 TO BUS 232002 CKT 1 /*SILVER RUN CEDAR CK 230 230 DISCONNECT BRANCH FROM BUS 232002 TO BUS 232108 CKT 1 /*CEDAR CK CEDAR CK 230 138 AT20 END
PECO_P4_PEACH205/* \$ CHESCO \$ PEACH205 \$ STBK	CONTINGENCY 'PECO_P4_PEACH205/* \$ CHESCO \$ PEACH205 \$ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200066 CKT 1 /* PCHBTM2S 500.00 PCHBTM1N 500.00 \$ CHESCO \$ PEACH205 \$ STBK TRIP BRANCH FROM BUS 200064 TO BUS 200065 CKT Z1 /* PCHBTM1S 500.00 PCHBTM2S 500.00 \$ CHESCO \$ PEACH205 \$ STBK TRIP BRANCH FROM BUS 200013 TO BUS 200066 CKT Z1 /* PCHBTM2N 500.00 PCHBTM1N 500.00 \$ CHESCO \$ PEACH205 \$ STBK TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PEACH205 \$ STBK END
DPL_P4-2_DP23	CONTINGENCY 'DPL_P4-2_DP23' /*CEDAR CREEK BUS BREAKER TO SILVER RUN DISCONNECT BRANCH FROM BUS 232002 TO BUS 232013 CKT 1 /*CEDAR CK SILVER RUN 230 230 DISCONNECT BRANCH FROM BUS 232002 TO BUS 232004 CKT 1 /*CEDAR CK MILFORD 230 230 END
PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK	CONTINGENCY 'PECO_P4_LINWO225/* \$ DELCO \$ LINWO225 \$ STBK' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 \$ DELCO \$ LINWO225 \$ STBK DISCONNECT BUS 213892 /* PHLISL87 230.00 \$ DELCO \$ LINWO225 \$ STBK DISCONNECT BUS 213888 /* PHLISCT1 18.00 \$ DELCO \$ LINWO225 \$ STBK DISCONNECT BUS 213889 /* PHLISCT2 18.00 \$ DELCO \$ LINWO225 \$ STBK END
PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 \$ DELCO \$ 220-85 \$ L END
PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L	CONTINGENCY 'PECO_P1-2_5007_S/* \$ CHESCO \$ 5007_S \$ L' TRIP BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 /* PCHBTM1N 500.00 FUR RUN_500 500.00 \$ CHESCO \$ 5007_S \$ L END

15 Affected Systems

None