



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-497
CARTANZA 230 KV
84 MW Capacity / 120 MW Energy**

January 2021

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1 Introduction

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

3 General

The Interconnection Customer (IC), has proposed a Solar; Storage generating facility located in Kent County, Delaware. The installed facilities will have a total capability of 120 MW with 84 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 30, 2023. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-497
Project Name	CARTANZA 230 KV
State	Delaware
County	Kent
Transmission Owner	DPL
MFO	120
MWE	120
MWC	84
Fuel	Solar; Storage
Basecase Study Year	2024

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

4 Point of Interconnection

AG1-497 will interconnect with the DPL system via a new 230kV terminal at the Cartanza Substation.

5 Cost Summary

The AG1-497 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$3,125,000
Total System Network Upgrade Costs	\$386,748,315
Total Costs	\$389,873,315

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

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

6 Transmission Owner Scope of Work

Install a new 230kV terminal at the Cartanza Substation

Major Equipment:

- One (1) 3000A 230 kV circuit breaker
- Three (3) 3000A 230 kV disconnect switches
- Associated Bus work
- Three Relay Panels
- FL & BU Bus relays
- Two (2) breaker control relays

Estimated Cost: \$3,125,000

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 accommodate necessary relaying equipment.

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

Description	Total Cost
Total Physical Interconnection Costs	\$3,125,000

7 Schedule

Design, procurement and construction of the new terminal position will take approximately 24-30 months from the date of execution of an ISA

8 Transmission Owner Analysis

None

9 Interconnection Customer Requirements

9.1 Required Relaying and Communications

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

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

9.2 Interconnection Customer Scope of Direct Connection Work

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

9.3 DPL Interconnection Customer Scope of Direct Connection Work Requirements

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

9.4 Special Operating Requirements

1. DPL will require the capability to remotely disconnect the generator from the grid by communication from its System Operations facility. Such disconnection may be facilitated by a generator breaker, or other method depending upon the specific circumstances and the evaluation by DPL.

2. DPL reserves the right to charge the Interconnection Customer operation and maintenance expenses to maintain the Interconnection Customer attachment facilities, including metering and telecommunications facilities, owned by DPL.
3. Interconnection Customer shall design its non-synchronous generation facility with the ability to maintain a power factor between 0.95 leading and 0.95 lagging measured at the generator terminals.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Temperature (degrees Fahrenheit)
- Atmospheric pressure (hectopascals)
- Irradiance
- Forced outage data

10.3 Interconnected Transmission Owner Requirements

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

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

Metering requirements are as follows:

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

The Queue Project AG1-497 was evaluated as a 120.1 MW (Capacity 84.0 MW) injection in the DPL area. Project AG1-497 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-497 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168024707	232003	CARTANZ A	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1_2_CKT 23033-A	single	790.0	98.37	108.98	DC	83.84
168024708	232003	CARTANZ A	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	single	650.0	93.43	100.89	DC	49.92
168025021	232003	CARTANZ A	230.0	DP&L	962380	AG1-087 TAP	230.0	DP&L	1	CKT 23032B	single	804.0	96.65	107.08	DC	83.84
168024675	232004	MILF_230	230.0	DP&L	232000	STEEL E	230.0	DP&L	1	CKT 23032B	single	550.0	95.09	101.45	DC	35.88

11.2 Multiple Facility Contingency

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

None

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168024755	231000	CLAY_230	230.0	DP&L	214235	LINWOOD 84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	118.77	119.33	DC	11.41
168024756	231000	CLAY_230	230.0	DP&L	214235	LINWOOD 84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	118.66	119.22	DC	11.39
168024766	231001	EDGE MR	230.0	DP&L	214236	LINWOOD 85	230.0	PECO	1	PECO_P1-2_220-84	single	804.0	117.19	117.73	DC	11.04
168024767	231001	EDGE MR	230.0	DP&L	214236	LINWOOD 85	230.0	PECO	1	PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L	single	804.0	116.79	117.32	DC	11.01
168024786	231001	EDGE MR	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	117.46	117.95	DC	10.15
168024787	231001	EDGE MR	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	117.35	117.85	DC	10.13
165434076	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	107.12	107.82	DC	12.49
165146149	232003	CARTANZ A	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P7_1_DBL_1NCB_FSA	tower	790.0	180.69	190.64	DC	79.25
168024706	232003	CARTANZ A	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1_2_CKT 23033-B	single	790.0	113.34	123.95	DC	83.84
165146204	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	140.01	146.43	DC	72.32
166842299	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	197.37	198.93	DC	12.52
166842309	232106	MIDLTNT P	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	177.64	179.21	DC	12.52
166842294	232107	TOWNSE ND	138.0	DP&L	232106	MIDLTNT P	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	203.1	204.67	DC	12.52
168024737	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	CKT 23032B	single	804.0	111.36	121.79	DC	83.84

11.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADIN G %	POST PROJE CT LOADIN G %	AC/D C	MW IMPAC T
167751331	200012	NEWFRDM	500.0	PSE&G	200028	WINDSOR	500.0	JCP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	2983.0	116.19	116.74	DC	35.57
167751199	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PECO	1	JC-P1-2-JCC-500-003	operation	2905.0	139.79	140.76	DC	61.01
167751288	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	TS_P1-2_#T6	operation	3620.0	122.03	122.68	DC	49.45
167751290	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	Base Case	operation	2920.0	107.96	108.58	DC	38.24
167751225	200066	PCHBTM1N	500.0	PECO	270072	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	3609.0	133.82	134.42	DC	45.33
167751398	213489	CHICHST1	230.0	PECO	213588	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	operation	1079.0	108.84	109.35	DC	11.77
167751423	219702	HILLTOP_2	230.0	PSE&G	219101	BEAVERBK_1	230.0	PSE&G	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	740.0	106.22	106.71	DC	7.99
168024753	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	155.76	156.69	DC	16.3
168024757	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	Base Case	operation	650.0	109.47	110.16	DC	9.72
168024764	231001	EDGE MR5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	PECO_P1-2_220-84	operation	804.0	152.98	153.89	DC	15.77
168024768	231001	EDGE MR5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	Base Case	operation	650.0	106.49	107.09	DC	8.43
168024784	231001	EDGE MR5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	150.4	151.23	DC	14.5
168024788	231001	EDGE MR5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	Base Case	operation	650.0	106.26	106.84	DC	8.19
168024974	231002	HARMONY	230.0	DP&L	231001	EDGE MR5	230.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	924.0	117.26	118.48	DC	25.3

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS LOADIN G %	POST PROJECTIONS LOADIN G %	AC/DC	MW IMPACT
168025067	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	804.0	103.12	104.04	DC	16.59
168024941	231124	GLASGOW	138.0	DP&L	231130	CECIL138	138.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	378.0	123.17	124.35	DC	10.2
168024835	232000	STEELE	230.0	DP&L	231003	KEEN_230	230.0	DP&L	1	DPL_P1_2_AB2-037 KEENEY	operation	552.0	138.39	139.66	DC	15.75
168024997	232000	STEELE	230.0	DP&L	923960	AB2-037 TAP	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	113.41	114.56	DC	18.77
168024689	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	678.0	180.41	183.51	DC	53.49
168024691	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	550.0	140.39	140.89	DC	17.07
168024704	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1_2_CKT 23031	operation	790.0	168.02	177.66	DC	76.67
168024705	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	166.32	177.22	DC	71.32
168025020	232003	CARTANZA	230.0	DP&L	962380	AG1-087 TAP	230.0	DP&L	1	CKT 23032B	operation	804.0	96.84	111.74	DC	119.77
168025022	232003	CARTANZA	230.0	DP&L	962380	AG1-087 TAP	230.0	DP&L	1	Base Case	operation	650.0	94.54	101.99	DC	48.45
168024672	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	196.29	205.62	DC	51.26
168024674	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	Base Case	operation	550.0	131.18	135.48	DC	23.63
168024769	232004	MILF_230	230.0	DP&L	232002	CEDAR CK	230.0	DP&L	1	CKT 23032B	operation	738.0	147.22	152.99	DC	42.95
168024771	232004	MILF_230	230.0	DP&L	232002	CEDAR CK	230.0	DP&L	1	Base Case	operation	650.0	99.54	100.51	DC	14.09
167751317	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_PS_P1-2_5015	operation	1117.0	116.64	118.87	DC	33.73
168024844	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	PJM500_PS_P1-2_HOPE-SILVER	operation	678.0	129.66	135.87	DC	42.49
168024967	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	2	PJM500_PS_P1-2_HOPE-SILVER	operation	790.0	111.69	117.04	DC	42.55
167751481	270073	FUR RUN_230	230.0	PJM	220963	CONASTON	230.0	BGE	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	1315.0	99.95	100.42	DC	13.21
167751483	270073	FUR RUN_230	230.0	PJM	220963	CONASTON	230.0	BGE	2	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	1315.0	99.95	100.42	DC	13.21
169785906	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	127.07	128.22	DC	18.77
169785908	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	Base Case	operation	650.0	107.35	108.31	DC	14.06
168024735	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	CKT 23032B	operation	804.0	151.4	166.3	DC	119.77
168024736	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	Base Case	operation	650.0	140.74	148.19	DC	48.45
168024952	962380	AG1-087 TAP	230.0	DP&L	232003	CARTANZA	230.0	DP&L	1	CKT 23030B	operation	804.0	119.12	119.79	DC	10.24

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
165146204	8	HOPE CREEK 230.0 kV - HOPE CRK 500.0 kV Ckt 1	Facility owned by LS Power (208) : This facility is owned by LS Power. LS Power, will not evaluate this violation until the impact study phase. Project Type : FAC Cost : \$0 Time Estimate : Months PSEG: r_PS_I025a_HC230500 (1545) : Upgrade Hope Creek 500/230kVkv transformer terminal equipment to achieve a SER of 1748 MVA Project Type : FAC Cost : \$1,608,315 Time Estimate : 15.0 Months	\$1,608,315
168024675	3	MILF_230 230.0 kV - STEELE 230.0 kV Ckt 1	DPL: dt23076r0001 (1355) : Rebuild Milford to Steele 230kV line (~23.5mi) with new poles, insulators, foundations, conductor and OPGW Project Type : FAC Cost : \$54,000,000 Time Estimate : 48-60 Months	\$54,000,000
168024707,168 024706,165146 149,168024708	1	CARTANZA 230.0 kV - SILVER RUN 230.0 kV Ckt 1	DPL: dt23032r0001 (203) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$65,000,000 Time Estimate : 48-60 Months dt23032r0002 (204) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$67,000,000 Time Estimate : 48-60 Months ds23032r0001 (205) : Replace 3000A CBs at Cartanza with 4000A CBs Project Type : FAC Cost : \$1,000,000 Time Estimate : 12-18 Months ds23032r0002 (210) : Upgrade relaying at Cartanza Project Type : FAC Cost : \$300,000 Time Estimate : 12.0 Months	\$133,300,000
165434076	7	KEEN_230 230.0 kV - HARMONY 230.0 kV Ckt 2	DPL: dt23010r0001 (1347): Rebuild Harmony - Keeney 230kV line. Rebuild will include installation of new poles, foundations, insulators, and conductor (Bundled 1590 ACSR). Project Type : FAC Cost : \$14,000,000 Time Estimate : 36-48 Months	\$14,000,000

ID	Idx	Facility	Upgrade Description	Cost
166842294	11	TOWNSEND 138.0 kV - MIDLTNTP 138.0 kV Ckt 1	DPL: ds13808r0001 (1278) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months ds13808r0003 (1339) : Upgrade terminal equipment at Townsend Substation Project Type : FAC Cost : \$300,000 Time Estimate : 12.0 Months dt13808r0005 (1340) : Rebuild the 13808-1 line from Townsend - Middletown Tap with new poles, conductor, foundations, insulators, and OPGW. Terminal equipment at Townsend would also need to be upgraded Project Type : FAC Cost : \$8,250,000 Time Estimate : 36-48 Months	\$8,650,000
168024767,168 024766	5	EDGEMR 5 230.0 kV - LINWOOD85 230.0 kV Ckt 1	PECO: pe024 (154) : Rebuild 8.64 miles of 230 kV line from Linwood to Edgemoor with 2x1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$25,080,000 Time Estimate : 36.0 Months b2985 (1291) : PJM baseline upgrade b2985: Replace the 230 kV CB #225 at Linwood Substation (PECO) with a double circuit breaker (back to back circuit breakers in one device). The baseline project has a projected in-service date of 06/01/2022. Project Type : CON Cost : \$0 Time Estimate : 0.0 Months DPL: dt22085r0001 (1316) : To mitigate the (DPL) Edge Moor - (PECO) Linwood 230 kV line (from bus 231001 to 214236) overload it will require increasing the emergency rating of the Edge Moor - Linwood 230 kV line by rebuilding the line with new poles, foundations, insulators and OPGW Project Type : FAC Cost : \$20,000,000 Time Estimate : 36-48 Months ds22085r0001 (1350) : Terminal upgrades at the Edge Moor 230kV Substation (upgrade 2000A Line Trap to 3000A Line trap) Project Type : FAC Cost : \$200,000 Time Estimate : 12.0 Months	\$45,280,000

ID	Idx	Facility	Upgrade Description	Cost
166842299	9	CHURCH 138.0 kV - TOWNSEND 138.0 kV Ckt 1	DPL: ds13833r0001 (1298) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require substation reinforcements at Church Substation. Project Type : FAC Cost : \$500,000 Time Estimate : 24-36 Months ds13833r0002 (1299) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require substation reinforcements (on top of ds13833r001) at Church Substation. Project Type : FAC Cost : \$200,000 Time Estimate : 24.0 Months ds13833r0003 (1300) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require substation reinforcements (on top of ds13833r001, ds13833r002) at Church Substation. Project Type : FAC Cost : \$100,000 Time Estimate : 12-18 Months dt13833r0001 (1301) : To mitigate the (DP&L) CHURCH to TOWNSEND 138 kV line (from bus 232100 to bus 232107 ckt 1) overload will require a rebuild of the 13833 Church to Townsend 138 kV Line along with substation reinforcements (on top of ds13833r001, ds13833r002, ds13833r003) at Church and Townsend Substations Project Type : FAC Cost : \$26,000,000 Time Estimate : 48-60 Months	\$26,800,000

ID	Idx	Facility	Upgrade Description	Cost
166842309	10	MIDLTNTP 138.0 kV - MT PLSNT 138.0 kV Ckt 1	DPL: ds13808r0001 (1278) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 (\$0 – COST ACCOUNTED FOR in Idx #11 above) Time Estimate : 12.0 Months ds13808r0002 (1279) : Upgrade circuit breaker and associated Current Transformers and Switches from 2000A to 3000A at Mt. Pleasant Substation Project Type : FAC Cost : \$400,000 Time Estimate : 12.0 Months dt13808r0003 (1320) : To mitigate the (DPL) Mt. Pleasant - Middletown Tap 138 kV line (from bus 232104 to 232106) overload is will require increasing the emergency rating of the line by rebuilding the line with new poles, conductor, foundations, insulators and OPGW. In addition, terminal upgrades will be required at Mt. Pleasant Project Type : FAC Cost : \$7,500,000 Time Estimate : 36-48 Months ds13808r0004 (1345) : Upgrade line disconnect switch at Mt. Pleasant Substation Project Type : FAC Cost : \$110,000 Time Estimate : 12.0 Months	\$8,010,000
168024787,168 024786	6	EDGE MR 5 230.0 kV - CLAY_230 230.0 kV Ckt 1	DPL: dt23015r0001 (1304) : To mitigate the (DP&L) Edge Moor to Claymont 230 kV line (from bus 231000 to bus 231001 ckt 1) overload, it will require increasing the emergency rating of the Edge Moor to Claymont 230 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor. In addition, terminal equipment will need to be upgraded at Claymont and Edge Moor Substations Project Type : FAC Cost : \$23,000,000 Time Estimate : 36-48 Months	\$23,000,000
168024737	12	AG1-087 TAP 230.0 kV - MILF_230 230.0 kV Ckt 1	DPL: dt23033r0001 (1353) : Rebuild AG1-087 Tap to Milford 230kV Line (~3.5mi.) with new poles, insulators, foundations, conductor and OPGW Project Type : FAC Cost : \$9,500,000 Time Estimate : 36-48 Months	\$9,500,000
168025021	2	CARTANZA 230.0 kV - AG1- 087 TAP 230.0 kV Ckt 1	DPL: dt23033r0002 (1354) : Rebuild AG1-087 Tap to Cartanza 230kV Line (~22mi.) with new poles, insulators, foundations, conductor and OPGW Project Type : FAC Cost : \$51,000,000 Time Estimate : 48-60 Months	\$51,000,000

ID	Idx	Facility	Upgrade Description	Cost
168024755,168 024756	4	CLAY_230 230.0 kV - LINWOOD84 230.0 kV Ckt 1	PECO: pe025 (155) : Rebuild 1.55 miles of 230 kV line from Linwood to Claymont with 2x1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$4,500,000 Time Estimate : 36.0 Months DPL: dt22084r0001 (1314) : To mitigate the (DPL) Claymont - (PECO) Linwood line (from bus 213750 to 231000) overload, it will require increasing the emergency rating of the Claymont - Linwood 230 kV line by rebuilding the line with new poles, foundations, insulators and OPGW and replacing terminal equipment at Claymont Project Type : FAC Cost : \$7,100,000 Time Estimate : 36-48 Months	\$11,600,000
			TOTAL COST	\$386,748,315

11.6 Flow Gate Details

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165146149	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB_FSA	tower	790.0	180.69	190.64	DC	79.25

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	3.6565	Adder	4.3
232407	W1-004 E	3.6565	Adder	4.3
232409	W1-005 E	3.6565	Adder	4.3
232411	W1-006 E	3.6565	Adder	4.3
232412	X1-032 E	1.1745	Adder	1.38
232418	X3-008 E	3.3865	Adder	3.98
232423	X3-066 E	0.5827	Adder	0.69
232425	Y1-079 E	1.3965	Adder	1.64
232427	Y1-080 E	0.5881	Adder	0.69
232429	Y3-058 E	1.7612	Adder	2.07
232432	Z2-076 C	0.2217	50/50	0.2217
232433	Z2-076 E	0.7080	50/50	0.7080
232434	Z2-077 C	0.2217	50/50	0.2217
232435	Z2-077 E	0.7080	50/50	0.7080
232616	GEN FOOD	1.5837	50/50	1.5837
232851	DUP-SFR1	2.7717	Adder	3.26
232901	NORTHST	4.7928	50/50	4.7928
232904	IR4	23.2894	50/50	23.2894
232920	IR10	0.9005	50/50	0.9005
232922	MR3 (Deactivation : 01/06/2021)	67.3618	50/50	67.3618
233911	AB1-137 C	0.2346	50/50	0.2346
233912	AB1-137 E	0.6372	50/50	0.6372
233916	AB1-141 E	1.1818	Adder	1.39
233919	AB1-142 E	1.1818	Adder	1.39
233920	W3-032A-CTG1	20.1091	50/50	20.1091
233921	W3-032A-STG1	12.1072	50/50	12.1072
917082	CHERRYDALE E	3.6574	Adder	4.3
918835	AA1-102 E	27.2786	Adder	32.09
919831	AA2-069 (Suspended)	297.8449	50/50	297.8449
923921	AB2-032 C	2.5513	Adder	3.0
923922	AB2-032 E	1.2006	Adder	1.41
923951	AB2-036 C	8.0155	Adder	9.43
923952	AB2-036 E	13.1142	Adder	15.43
924681	AB2-120 C	13.1921	50/50	13.1921
924682	AB2-120 E	21.5239	50/50	21.5239
924781	AB2-130 C O1	9.1851	Adder	10.81
924782	AB2-130 E O1	14.9862	Adder	17.63
924801	AB2-133 C O1	4.3282	Adder	5.09
924802	AB2-133 E O1	5.4894	Adder	6.46
924821	AB2-135 C	5.3552	Adder	6.3
924822	AB2-135 E	6.1074	Adder	7.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	6.8664	Adder	8.08
924832	AB2-136 E	7.2817	Adder	8.57
924971	AB2-153 C	1.4257	Adder	1.68
924972	AB2-153 E	2.3262	Adder	2.74
925151	AB2-172 C	5.1890	Adder	6.1
925152	AB2-172 E	8.4663	Adder	9.96
925261	AB2-180 C	4.0422	Adder	4.76
925262	AB2-180 E	1.7324	Adder	2.04
925271	AB2-185 C	3.1535	Adder	3.71
925272	AB2-185 E	1.3515	Adder	1.59
927031	AC1-190 C	9.5822	Adder	11.27
927032	AC1-190 E	4.1066	Adder	4.83
927191	AC1-213 C	0.9301	Adder	1.09
927192	AC1-213 E	0.6104	Adder	0.72
930201	AB1-056 C	23.0797	50/50	23.0797
930202	AB1-056 E	65.7269	50/50	65.7269
931261	AB1-176 C	0.3013	Adder	0.35
931262	AB1-176 E	0.4969	Adder	0.58
932161	AC2-023 C	7.6175	Adder	8.96
932162	AC2-023 E	5.5478	Adder	6.53
933641	AC2-186 C	4.6095	Adder	5.42
933642	AC2-186 E	7.5208	Adder	8.85
936611	AD2-076 C O1	3.6668	Adder	4.31
936612	AD2-076 E O1	5.9827	Adder	7.04
938651	AE1-087 C	4.3697	Adder	5.14
938652	AE1-087 E	1.0924	Adder	1.29
938895	AE1-117 C	16.9934	50/50	16.9934
938896	AE1-117 E	45.3158	50/50	45.3158
939151	AE1-145	5.9009	Adder	6.94
941021	AE2-093 C	4.2623	Adder	5.01
941022	AE2-093 E	6.9543	Adder	8.18
941181	AE2-112 C	1.2722	Adder	1.5
941182	AE2-112 E	2.0756	Adder	2.44
942441	AE2-257 C	11.6988	50/50	11.6988
942442	AE2-257 E	30.8424	50/50	30.8424
943361	AF1-007 C	0.6809	50/50	0.6809
943362	AF1-007 E	1.9353	50/50	1.9353
943441	AF1-015 C	1.6060	Adder	1.89
943442	AF1-015 E	2.2178	Adder	2.61
943651	AF1-036 C	1.6542	Adder	1.95
943652	AF1-036 E	2.2844	Adder	2.69
945661	AF1-231 C	2.2416	Adder	2.64
945662	AF1-231 E	3.3623	Adder	3.96
945791	AF1-244	2.3465	Adder	2.76
945931	AF1-258	0.9239	Adder	1.09
945941	AF1-259	0.1596	Adder	0.19
957611	AF2-055 C	10.3233	Adder	12.15
957612	AF2-055 E	4.4243	Adder	5.21
957661	AF2-060	2.6554	Adder	3.12
957671	AF2-061 O1	11.8017	Adder	13.88
959021	AF2-193 C	42.6472	50/50	42.6472
959022	AF2-193 E	115.0400	50/50	115.0400

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959031	AF2-194 C	42.6472	50/50	42.6472
959032	AF2-194 E	115.0400	50/50	115.0400
959051	AF2-196 C	3.1906	50/50	3.1906
959052	AF2-196 E	7.4447	50/50	7.4447
959161	AF2-207 C O1	5.8168	Adder	6.84
959162	AF2-207 E O1	8.7252	Adder	10.26
959571	AF2-248 C	0.9837	Adder	1.16
959572	AF2-248 E	1.0994	Adder	1.29
959581	AF2-249 C	0.1736	Adder	0.2
959582	AF2-249 E	0.6944	Adder	0.82
959591	AF2-250 C	0.3182	Adder	0.37
959592	AF2-250 E	0.2459	Adder	0.29
960221	AF2-313 C	2.5342	Adder	2.98
960222	AF2-313 E	1.4367	Adder	1.69
960341	AF2-325 C	1.1572	Adder	1.36
960342	AF2-325 E	1.5980	Adder	1.88
960671	AF2-358 C O1	16.8371	Adder	19.81
960672	AF2-358 E O1	11.2248	Adder	13.21
960871	AF2-378 C	0.3066	Adder	0.36
960872	AF2-378 E	0.4254	Adder	0.5
960881	AF2-379 C	0.4787	Adder	0.56
960882	AF2-379 E	0.6597	Adder	0.78
960941	AF2-385 C	13.7919	Adder	16.23
960942	AF2-385 E	7.8481	Adder	9.23
960961	AF2-387 C O1	16.3042	Adder	19.18
960962	AF2-387 E O1	8.1766	Adder	9.62
961181	AF2-409 O1	28.5031	Adder	33.53
962161	AG1-061 C O1	9.8520	Adder	21.87
962162	AG1-061 E O1	6.5680	Adder	14.58
962261	AG1-072	6.4874	Adder	14.4
962302	AG1-079 E	0.1462	Adder	0.32
962381	AG1-087 C O1	49.5802	50/50	49.5802
962382	AG1-087 E O1	133.7414	50/50	133.7414
963001	AG1-149	0.4664	Adder	1.04
963011	AG1-150	13.8844	50/50	13.8844
964551	AG1-318 C	0.1061	50/50	0.1061
964552	AG1-318 E	0.2476	50/50	0.2476
964962	AG1-360 E	1.3617	Adder	3.02
965321	AG1-397 C	0.6508	Adder	1.44
965322	AG1-397 E	0.8978	Adder	1.99
965611	AG1-429 C O1	5.5120	Adder	12.24
965612	AG1-429 E O1	3.6736	Adder	8.15
965821	AG1-450	3.7104	Adder	8.24
965921	AG1-461 C O1	2.9786	Adder	6.61
965922	AG1-461 E O1	1.6038	Adder	3.56
965951	AG1-464 C O1	2.5716	Adder	5.71
965952	AG1-464 E O1	3.8575	Adder	8.56
966281	AG1-497 C O1	55.4744	50/50	55.4744
966282	AG1-497 E O1	23.7748	50/50	23.7748
966601	AG1-529 C	7.2988	Adder	16.2
966602	AG1-529 E	3.8957	Adder	8.65
CALDERWOOD	CALDERWOOD	0.1839	Confirmed LTF	0.1839

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

11.6.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168025021	232003	CARTANZA	DP&L	962380	AG1-087 TAP	DP&L	1	CKT 23032B	single	804.0	96.65	107.08	DC	83.84

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

11.6.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168024675	232004	MILF_230	DP&L	232000	STEELE	DP&L	1	CKT 23032B	single	550.0	95.09	101.45	DC	35.88

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.1557	80/20	0.1557
232404	W1-003 C	0.4717	80/20	0.4717
232406	W1-004 C	0.4717	80/20	0.4717
232408	W1-005 C	0.4717	80/20	0.4717
232410	W1-006 C	0.4717	80/20	0.4717
232432	Z2-076 C	0.1953	80/20	0.1953
232434	Z2-077 C	0.1953	80/20	0.1953
232616	GEN FOOD	1.0243	80/20	1.0243
232901	NORTHST	3.0998	80/20	3.0998
232904	IR4	22.8105	80/20	22.8105
232905	BAYVIEW1	0.4436	80/20	0.4436
232912	OH NUG1	1.2838	80/20	1.2838
232913	OH NUG2	1.2667	80/20	1.2667
232914	OH NUG3	1.2838	80/20	1.2838
232915	OH NUG4	1.2838	80/20	1.2838
232916	OH NUG5	1.2838	80/20	1.2838
232917	OH NUG6	1.2781	80/20	1.2781
232918	OH NUG7	1.2753	80/20	1.2753
232920	IR10	0.8460	80/20	0.8460
232921	TASLEY2G	0.8541	80/20	0.8541
232922	MR3 (Deactivation : 01/06/2021)	43.5673	80/20	43.5673
233911	AB1-137 C	0.2178	80/20	0.2178
233920	W3-032A-CTG1	13.0059	80/20	13.0059
233921	W3-032A-STG1	7.8305	80/20	7.8305
917081	CHERRYDALE C	0.2697	80/20	0.2697
919831	AA2-069 (Suspended)	192.6356	80/20	192.6356
923921	AB2-032 C	-1.1533	Adder	-1.36
924681	AB2-120 C	8.6146	80/20	8.6146
924781	AB2-130 C O1	7.5482	80/20	7.5482
924971	AB2-153 C	-0.6445	Adder	-0.76
925261	AB2-180 C	2.1396	Adder	2.52
926131	AC1-091 C	0.9654	Adder	1.14
926141	AC1-092 C	0.9654	Adder	1.14
926151	AC1-093 C	0.9139	Adder	1.08
926161	AC1-094 C	0.7723	Adder	0.91
927191	AC1-213 C	0.5509	Adder	0.65
930201	AB1-056 C	22.6050	80/20	22.6050
932161	AC2-023 C	3.7101	Adder	4.36
933631	AC2-185 C	1.9566	Adder	2.3
933641	AC2-186 C	4.9962	80/20	4.9962
938896	AE1-117 E	42.0621	80/20	42.0621

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939151	AE1-145	4.5308	80/20	4.5308
942441	AE2-257 C	10.9530	80/20	10.9530
943361	AF1-007 C	0.6669	80/20	0.6669
945661	AF1-231 C	1.7073	80/20	1.7073
945791	AF1-244	1.3657	Adder	1.61
945931	AF1-258	0.4891	Adder	0.58
945941	AF1-259	-0.0657	Adder	-0.08
957611	AF2-055 C	7.8722	80/20	7.8722
957661	AF2-060	2.0389	80/20	2.0389
957671	AF2-061 O1	9.0616	80/20	9.0616
959021	AF2-193 C	41.7702	80/20	41.7702
959031	AF2-194 C	41.7702	80/20	41.7702
959051	AF2-196 C	2.9872	80/20	2.9872
959161	AF2-207 C O1	3.5134	Adder	4.13
959571	AF2-248 C	0.5899	Adder	0.69
959581	AF2-249 C	0.1041	Adder	0.12
959591	AF2-250 C	0.1908	Adder	0.22
960671	AF2-358 C O1	4.6609	Adder	5.48
960881	AF2-379 C	0.2699	Adder	0.32
960941	AF2-385 C	9.8004	80/20	9.8004
962161	AG1-061 C O1	5.2783	Adder	11.72
962381	AG1-087 C O1	50.8285	80/20	50.8285
963001	AG1-149	0.2714	Adder	0.6
963011	AG1-150	9.0616	80/20	9.0616
964551	AG1-318 C	0.0978	80/20	0.0978
965321	AG1-397 C	0.9740	80/20	0.9740
965611	AG1-429 C O1	7.9307	80/20	7.9307
965921	AG1-461 C O1	5.0072	80/20	5.0072
965951	AG1-464 C O1	5.2592	80/20	5.2592
966281	AG1-497 C O1	35.8789	80/20	35.8789
966601	AG1-529 C	17.5267	80/20	17.5267
CALDERWOOD	CALDERWOOD	0.1337	Confirmed LTF	0.1337
NY	NY	0.0874	Confirmed LTF	0.0874
PRAIRIE	PRAIRIE	0.6922	Confirmed LTF	0.6922
CHEOAH	CHEOAH	0.1346	Confirmed LTF	0.1346
COTTONWOOD	COTTONWOOD	0.5649	Confirmed LTF	0.5649
HAMLET	HAMLET	0.1571	Confirmed LTF	0.1571
GIBSON	GIBSON	0.1463	Confirmed LTF	0.1463
BLUEG	BLUEG	0.4652	Confirmed LTF	0.4652
TRIMBLE	TRIMBLE	0.1491	Confirmed LTF	0.1491
CATAWBA	CATAWBA	0.0948	Confirmed LTF	0.0948

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
168024756	231000	CLAY_230	DP&L	214235	LINWOOD84	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	118.66	119.22	DC	11.39

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

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

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

11.6.5 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
168024767	231001	EDGE MR 5	DP&L	214236	LINWOOD85	PECO	1	PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L	single	804.0	116.79	117.32	DC	11.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231131	BLOOM ENRGY	0.6815	80/20	0.6815
231505	HR4	14.2773	80/20	14.2773
231900	EM5	34.6724	80/20	34.6724
231901	EM4	9.2680	80/20	9.2680
231902	DC CT7	1.5782	80/20	1.5782
231903	GEN4	1.9305	80/20	1.9305
231904	DC1 NUG	5.0018	80/20	5.0018
231905	DC2 NUG	5.0018	80/20	5.0018
231906	DC3 NUG	1.9742	80/20	1.9742
231907	DC10	0.4929	80/20	0.4929
231908	HR1	6.6581	80/20	6.6581
231909	HR2	6.5163	80/20	6.5163
231910	HR3	6.6581	80/20	6.6581
231915	DC CT6	1.5229	80/20	1.5229
231916	EM3	4.4832	80/20	4.4832
231917	EM10	0.7402	80/20	0.7402
231918	WEST 1	0.8000	80/20	0.8000
231919	CHRIST1	1.1151	80/20	1.1151
231920	CHRIST2	1.1102	80/20	1.1102
232416	X2-083	0.1020	80/20	0.1020
232417	X3-008 C	0.1837	80/20	0.1837
232422	X3-066 C	0.0582	80/20	0.0582
232424	Y1-079 C	0.0967	80/20	0.0967
232426	Y1-080 FULL	0.0306	80/20	0.0306
232902	EASTMUNI	1.7311	80/20	1.7311
232907	VN8	3.6640	80/20	3.6640
232922	MR3 (Deactivation : 01/06/2021)	11.3612	Adder	13.37
233915	AB1-141 C	0.3484	80/20	0.3484
233918	AB1-142 C	0.3484	80/20	0.3484
233931	AB2-179 C	6.5337	80/20	6.5337
919831	AA2-069 (Suspended)	50.2342	Adder	59.1
923921	AB2-032 C	2.2250	80/20	2.2250
923951	AB2-036 C	5.6374	80/20	5.6374
923961	AB2-037 C	12.4277	80/20	12.4277
924681	AB2-120 C	4.7597	Adder	5.6
924781	AB2-130 C O1	4.0172	Adder	4.73
924801	AB2-133 C O1	3.9977	80/20	3.9977
924821	AB2-135 C	4.7185	80/20	4.7185

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	3.7760	80/20	3.7760
924971	AB2-153 C	1.2434	80/20	1.2434
925151	AB2-172 C	2.9112	80/20	2.9112
925261	AB2-180 C	1.7680	Adder	2.08
925271	AB2-185 C	2.2576	80/20	2.2576
926131	AC1-091 C	0.8208	Adder	0.97
926141	AC1-092 C	0.8208	Adder	0.97
926151	AC1-093 C	0.7771	Adder	0.91
926161	AC1-094 C	0.6567	Adder	0.77
927031	AC1-190 C	5.3568	80/20	5.3568
927191	AC1-213 C	0.4023	Adder	0.47
930201	AB1-056 C	7.8804	Adder	9.27
931261	AB1-176 C	0.2445	80/20	0.2445
932161	AC2-023 C	3.3569	Adder	3.95
933631	AC2-185 C	1.6636	Adder	1.96
933641	AC2-186 C	2.2991	Adder	2.7
936451	AD2-059 C	0.0555	80/20	0.0555
936611	AD2-076 C O1	3.0362	80/20	3.0362
938651	AE1-087 C	2.4515	80/20	2.4515
938814	AE1-107 C	5.4768	80/20	5.4768
938896	AE1-117 E	15.7107	Adder	18.48
939151	AE1-145	2.5051	Adder	2.95
941021	AE2-093 C	2.6700	80/20	2.6700
941181	AE2-112 C	1.0534	80/20	1.0534
942441	AE2-257 C	4.0485	Adder	4.76
943361	AF1-007 C	0.2325	Adder	0.27
943441	AF1-015 C	1.0060	80/20	1.0060
943651	AF1-036 C	1.3697	80/20	1.3697
945661	AF1-231 C	0.9523	Adder	1.12
945791	AF1-244	1.0069	Adder	1.18
945931	AF1-258	0.4041	Adder	0.48
945941	AF1-259	0.1295	80/20	0.1295
957611	AF2-055 C	4.3852	Adder	5.16
957661	AF2-060	1.1273	Adder	1.33
957671	AF2-061 O1	5.0102	Adder	5.89
959021	AF2-193 C	14.5616	Adder	17.13
959031	AF2-194 C	14.5616	Adder	17.13
959051	AF2-196 C	1.1041	Adder	1.3
959161	AF2-207 C O1	2.5293	Adder	2.98
959571	AF2-248 C	0.4269	Adder	0.5
959581	AF2-249 C	0.0753	Adder	0.09
959591	AF2-250 C	0.1381	Adder	0.16
960221	AF2-313 C	2.0563	80/20	2.0563
960341	AF2-325 C	0.6409	80/20	0.6409
960671	AF2-358 C O1	7.7163	Adder	9.08
960871	AF2-378 C	0.1692	80/20	0.1692
960881	AF2-379 C	0.2066	Adder	0.24
960941	AF2-385 C	5.9970	Adder	7.06
960961	AF2-387 C O1	10.6973	80/20	10.6973
961181	AF2-409 O1	15.1790	80/20	15.1790
962161	AG1-061 C O1	4.3793	Adder	9.72
962261	AG1-072	8.0310	80/20	8.0310

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962381	AG1-087 C O1	7.5300	Adder	16.71
963001	AG1-149	0.2001	Adder	0.44
963011	AG1-150	2.6554	Adder	5.89
964551	AG1-318 C	0.0195	Adder	0.04
965321	AG1-397 C	0.2776	Adder	0.62
965611	AG1-429 C O1	2.3414	Adder	5.2
965821	AG1-450	1.7057	Adder	3.79
965921	AG1-461 C O1	1.2812	Adder	2.84
965951	AG1-464 C O1	1.2827	Adder	2.85
966281	AG1-497 C O1	4.9588	Adder	11.01
966601	AG1-529 C	3.1200	Adder	6.93
WEC	WEC	0.0290	Confirmed LTF	0.0290
LGEE	LGEE	0.0609	Confirmed LTF	0.0609
CPL	CPL	0.1290	Confirmed LTF	0.1290
CBM-W2	CBM-W2	0.9946	Confirmed LTF	0.9946
NY	NY	0.9373	Confirmed LTF	0.9373
TVA	TVA	0.1722	Confirmed LTF	0.1722
SIGE	SIGE	0.2491	Confirmed LTF	0.2491
CBM-S2	CBM-S2	1.7539	Confirmed LTF	1.7539
CBM-S1	CBM-S1	0.0448	Confirmed LTF	0.0448
MEC	MEC	0.1573	Confirmed LTF	0.1573
LAGN	LAGN	0.2118	Confirmed LTF	0.2118
CBM-W1	CBM-W1	1.2057	Confirmed LTF	1.2057

11.6.6 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
168024787	231001	EDGE MR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	117.35	117.85	DC	10.13

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

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

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

11.6.7 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
165434076	231003	KEEN_230	DP&L	231002	HARMONY	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	107.12	107.82	DC	12.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2490	50/50	0.2490
232405	W1-003 E	1.4646	50/50	1.4646
232406	W1-004 C	0.2490	50/50	0.2490
232407	W1-004 E	1.4646	50/50	1.4646
232408	W1-005 C	0.2490	50/50	0.2490
232409	W1-005 E	1.4646	50/50	1.4646
232410	W1-006 C	0.2490	50/50	0.2490
232411	W1-006 E	1.4646	50/50	1.4646
232412	X1-032 E	0.4744	50/50	0.4744
232417	X3-008 C	0.1423	50/50	0.1423
232418	X3-008 E	1.4713	50/50	1.4713
232423	X3-066 E	0.2275	Adder	0.27
232425	Y1-079 E	0.5518	Adder	0.65
232426	Y1-080 FULL	0.0241	50/50	0.0241
232427	Y1-080 E	0.2508	50/50	0.2508
232428	Y3-058 C	0.1065	50/50	0.1065
232429	Y3-058 E	0.7222	50/50	0.7222
232433	Z2-076 E	0.1976	Adder	0.23
232435	Z2-077 E	0.1976	Adder	0.23
232851	DUP-SFR1	0.9665	Adder	1.14
232907	VN8	2.9541	50/50	2.9541
232912	OH NUG1	0.6749	50/50	0.6749
232914	OH NUG3	0.6749	50/50	0.6749
232915	OH NUG4	0.6749	50/50	0.6749
232916	OH NUG5	0.6749	50/50	0.6749
232919	VN10	0.2174	50/50	0.2174
232922	MR3 (Deactivation : 01/06/2021)	9.0246	Adder	10.62
232926	CRISFLD1	0.1873	50/50	0.1873
233912	AB1-137 E	0.1763	Adder	0.21
233916	AB1-141 E	0.4540	Adder	0.53
233919	AB1-142 E	0.4540	Adder	0.53
233923	AA1-102 C	1.0675	50/50	1.0675
917082	CHERRYDALE E	1.2446	Adder	1.46
918835	AA1-102 E	11.0400	50/50	11.0400
919831	AA2-069 (Suspended)	39.9029	Adder	46.94
923921	AB2-032 C	0.9801	Adder	1.15
923922	AB2-032 E	0.4612	Adder	0.54
923951	AB2-036 C	3.1908	Adder	3.75
923952	AB2-036 E	5.2204	Adder	6.14
923961	AB2-037 C	10.5823	50/50	10.5823
923962	AB2-037 E	17.2876	50/50	17.2876
924681	AB2-120 C	3.8124	Adder	4.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924682	AB2-120 E	6.2202	Adder	7.32
924781	AB2-130 C O1	3.1812	Adder	3.74
924782	AB2-130 E O1	5.1904	Adder	6.11
924801	AB2-133 C O1	1.6665	Adder	1.96
924802	AB2-133 E O1	2.1136	Adder	2.49
924821	AB2-135 C	2.1427	Adder	2.52
924822	AB2-135 E	2.4437	Adder	2.87
924831	AB2-136 C	2.9532	50/50	2.9532
924832	AB2-136 E	3.1318	50/50	3.1318
924971	AB2-153 C	0.5477	Adder	0.64
924972	AB2-153 E	0.8936	Adder	1.05
925151	AB2-172 C	2.2543	50/50	2.2543
925152	AB2-172 E	3.6781	50/50	3.6781
925261	AB2-180 C	1.6576	50/50	1.6576
925262	AB2-180 E	0.7104	50/50	0.7104
925271	AB2-185 C	1.2459	Adder	1.47
925272	AB2-185 E	0.5340	Adder	0.63
926131	AC1-091 C	0.6335	Adder	0.75
926132	AC1-091 E	1.0389	Adder	1.22
926141	AC1-092 C	0.6335	Adder	0.75
926142	AC1-092 E	1.0389	Adder	1.22
926151	AC1-093 C	0.5997	Adder	0.71
926152	AC1-093 E	0.9882	Adder	1.16
926161	AC1-094 C	0.5068	Adder	0.6
926162	AC1-094 E	0.8362	Adder	0.98
927031	AC1-190 C	4.1556	50/50	4.1556
927032	AC1-190 E	1.7810	50/50	1.7810
927191	AC1-213 C	0.3210	Adder	0.38
927192	AC1-213 E	0.2107	Adder	0.25
930201	AB1-056 C	6.2956	Adder	7.41
930202	AB1-056 E	17.9289	Adder	21.09
931261	AB1-176 C	0.1176	Adder	0.14
931262	AB1-176 E	0.1940	Adder	0.23
932161	AC2-023 C	3.1445	50/50	3.1445
932162	AC2-023 E	2.2901	50/50	2.2901
933631	AC2-185 C	1.2839	Adder	1.51
933632	AC2-185 E	2.0947	Adder	2.46
933641	AC2-186 C	1.7295	Adder	2.03
933642	AC2-186 E	2.8218	Adder	3.32
936453	AD2-059 BAT	0.4396	50/50	0.4396
936611	AD2-076 C O1	1.4206	Adder	1.67
936612	AD2-076 E O1	2.3179	Adder	2.73
938651	AE1-087 C	1.8984	50/50	1.8984
938652	AE1-087 E	0.4746	50/50	0.4746
938895	AE1-117 C	4.7018	Adder	5.53
938896	AE1-117 E	12.5381	Adder	14.75
939151	AE1-145	2.0065	Adder	2.36
941021	AE2-093 C	2.0087	50/50	2.0087
941022	AE2-093 E	3.2774	50/50	3.2774
941181	AE2-112 C	0.4929	Adder	0.58
941182	AE2-112 E	0.8042	Adder	0.95
942441	AE2-257 C	3.2308	Adder	3.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942442	AE2-257 E	8.5176	Adder	10.02
943361	AF1-007 C	0.1857	Adder	0.22
943362	AF1-007 E	0.5279	Adder	0.62
943441	AF1-015 C	0.7569	50/50	0.7569
943442	AF1-015 E	1.0452	50/50	1.0452
943651	AF1-036 C	0.6409	Adder	0.75
943652	AF1-036 E	0.8850	Adder	1.04
945661	AF1-231 C	0.7629	Adder	0.9
945662	AF1-231 E	1.1443	Adder	1.35
945791	AF1-244	0.9497	50/50	0.9497
945931	AF1-258	0.3789	50/50	0.3789
945941	AF1-259	0.0623	Adder	0.07
957443	AF2-038 BAT	2.7182	50/50	2.7182
957611	AF2-055 C	3.5129	Adder	4.13
957612	AF2-055 E	1.5055	Adder	1.77
957661	AF2-060	0.9029	Adder	1.06
957671	AF2-061 O1	4.0130	Adder	4.72
959021	AF2-193 C	11.6333	Adder	13.69
959022	AF2-193 E	31.3805	Adder	36.92
959031	AF2-194 C	11.6333	Adder	13.69
959032	AF2-194 E	31.3805	Adder	36.92
959051	AF2-196 C	0.8811	Adder	1.04
959052	AF2-196 E	2.0560	Adder	2.42
959161	AF2-207 C O1	2.0162	Adder	2.37
959162	AF2-207 E O1	3.0243	Adder	3.56
959571	AF2-248 C	0.3404	Adder	0.4
959572	AF2-248 E	0.3805	Adder	0.45
959581	AF2-249 C	0.0601	Adder	0.07
959582	AF2-249 E	0.2403	Adder	0.28
959591	AF2-250 C	0.1101	Adder	0.13
959592	AF2-250 E	0.0851	Adder	0.1
960221	AF2-313 C	0.9895	Adder	1.16
960222	AF2-313 E	0.5610	Adder	0.66
960341	AF2-325 C	0.4995	50/50	0.4995
960342	AF2-325 E	0.6898	50/50	0.6898
960671	AF2-358 C O1	7.1712	50/50	7.1712
960672	AF2-358 E O1	4.7808	50/50	4.7808
960871	AF2-378 C	0.1321	50/50	0.1321
960872	AF2-378 E	0.1833	50/50	0.1833
960881	AF2-379 C	0.1947	50/50	0.1947
960882	AF2-379 E	0.2682	50/50	0.2682
960941	AF2-385 C	4.7805	Adder	5.62
960942	AF2-385 E	2.7203	Adder	3.2
960961	AF2-387 C O1	6.5441	Adder	7.7
960962	AF2-387 E O1	3.2819	Adder	3.86
961181	AF2-409 O1	12.2380	50/50	12.2380
962161	AG1-061 C O1	3.4705	Adder	7.7
962162	AG1-061 E O1	2.3137	Adder	5.14
962261	AG1-072	2.6039	Adder	5.78
962302	AG1-079 E	0.0616	Adder	0.14
962381	AG1-087 C O1	6.0187	Adder	13.36
962382	AG1-087 E O1	16.2354	Adder	36.04

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165146204	232012	HOPE CREEK	PJM	200029	HOPE CRK	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	140.01	146.43	DC	72.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	4.3871	Adder	5.16
232407	W1-004 E	4.3871	Adder	5.16
232409	W1-005 E	4.3871	Adder	5.16
232411	W1-006 E	4.3871	Adder	5.16
232412	X1-032 E	1.3954	Adder	1.64
232418	X3-008 E	3.6945	Adder	4.35
232423	X3-066 E	0.6264	Adder	0.74
232425	Y1-079 E	1.3675	Adder	1.61
232427	Y1-080 E	0.6616	Adder	0.78
232429	Y3-058 E	2.0912	Adder	2.46
232433	Z2-076 E	0.7602	Adder	0.89
232435	Z2-077 E	0.7602	Adder	0.89
232616	GEN FOOD	1.4453	50/50	1.4453
232813	VAUGHN	0.2195	50/50	0.2195
232851	DUP-SFR1	3.8081	Adder	4.48
232899	W1-062	4.4526	50/50	4.4526
232900	DEMECSMY	4.3617	50/50	4.3617
232901	NORTHST	4.3739	50/50	4.3739
232922	MR3 (Deactivation : 01/06/2021)	61.4734	50/50	61.4734
233912	AB1-137 E	0.6898	Adder	0.81
233916	AB1-141 E	1.2494	Adder	1.47
233919	AB1-142 E	1.2494	Adder	1.47
233920	W3-032A-CTG1	18.3513	50/50	18.3513
233921	W3-032A-STG1	11.0488	50/50	11.0488
917082	CHERRYDALE E	4.3911	Adder	5.17
918835	AA1-102 E	32.3322	Adder	38.04
919831	AA2-069 (Suspended)	271.8087	50/50	271.8087
923921	AB2-032 C	2.6972	Adder	3.17
923922	AB2-032 E	1.2693	Adder	1.49
923951	AB2-036 C	7.6067	Adder	8.95
923952	AB2-036 E	12.4453	Adder	14.64
923961	AB2-037 C	16.3092	Adder	19.19
923962	AB2-037 E	26.6433	Adder	31.35
924681	AB2-120 C	13.4743	Adder	15.85
924682	AB2-120 E	21.9843	Adder	25.86
924781	AB2-130 C O1	11.7774	Adder	13.86
924782	AB2-130 E O1	19.2157	Adder	22.61
924801	AB2-133 C O1	5.1399	Adder	6.05
924802	AB2-133 E O1	6.5189	Adder	7.67
924821	AB2-135 C	7.6016	Adder	8.94
924822	AB2-135 E	8.6694	Adder	10.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924831	AB2-136 C	7.6196	Adder	8.96
924832	AB2-136 E	8.0804	Adder	9.51
924971	AB2-153 C	1.5072	Adder	1.77
924972	AB2-153 E	2.4592	Adder	2.89
925151	AB2-172 C	5.6609	Adder	6.66
925152	AB2-172 E	9.2362	Adder	10.87
925261	AB2-180 C	4.7995	Adder	5.65
925262	AB2-180 E	2.0569	Adder	2.42
925271	AB2-185 C	3.0879	Adder	3.63
925272	AB2-185 E	1.3234	Adder	1.56
926131	AC1-091 C	4.7147	50/50	4.7147
926132	AC1-091 E	7.7320	50/50	7.7320
926141	AC1-092 C	4.7147	50/50	4.7147
926142	AC1-092 E	7.7320	50/50	7.7320
926151	AC1-093 C	4.4632	50/50	4.4632
926152	AC1-093 E	7.3549	50/50	7.3549
926161	AC1-094 C	3.7717	50/50	3.7717
926162	AC1-094 E	6.2233	50/50	6.2233
927031	AC1-190 C	10.4860	Adder	12.34
927032	AC1-190 E	4.4940	Adder	5.29
927191	AC1-213 C	1.1181	Adder	1.32
927192	AC1-213 E	0.7337	Adder	0.86
930201	AB1-056 C	24.9494	Adder	29.35
930202	AB1-056 E	71.0515	Adder	83.59
931261	AB1-176 C	0.3239	Adder	0.38
931262	AB1-176 E	0.5341	Adder	0.63
932161	AC2-023 C	8.9690	Adder	10.55
932162	AC2-023 E	6.5321	Adder	7.68
933631	AC2-185 C	9.5550	50/50	9.5550
933632	AC2-185 E	15.5898	50/50	15.5898
933641	AC2-186 C	9.0069	50/50	9.0069
933642	AC2-186 E	14.6955	50/50	14.6955
936611	AD2-076 C O1	3.7879	Adder	4.46
936612	AD2-076 E O1	6.1802	Adder	7.27
938651	AE1-087 C	4.7671	Adder	5.61
938652	AE1-087 E	1.1918	Adder	1.4
938895	AE1-117 C	18.3902	Adder	21.64
938896	AE1-117 E	49.0405	Adder	57.69
939151	AE1-145	7.0912	Adder	8.34
941021	AE2-093 C	3.9383	Adder	4.63
941022	AE2-093 E	6.4256	Adder	7.56
941181	AE2-112 C	1.3142	Adder	1.55
941182	AE2-112 E	2.1442	Adder	2.52
942441	AE2-257 C	12.6674	Adder	14.9
942442	AE2-257 E	33.3958	Adder	39.29
943361	AF1-007 C	0.7361	Adder	0.87
943362	AF1-007 E	2.0920	Adder	2.46
943441	AF1-015 C	1.4839	Adder	1.75
943442	AF1-015 E	2.0492	Adder	2.41
943651	AF1-036 C	1.7088	Adder	2.01
943652	AF1-036 E	2.3598	Adder	2.78
945661	AF1-231 C	2.6907	Adder	3.17

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945662	AF1-231 E	4.0360	Adder	4.75
945791	AF1-244	2.7813	Adder	3.27
945931	AF1-258	1.0970	Adder	1.29
945941	AF1-259	0.1716	Adder	0.2
957611	AF2-055 C	12.3941	Adder	14.58
957612	AF2-055 E	5.3118	Adder	6.25
957661	AF2-060	3.1910	Adder	3.75
957671	AF2-061 O1	14.1824	Adder	16.69
959021	AF2-193 C	46.1021	Adder	54.24
959022	AF2-193 E	124.3596	Adder	146.31
959031	AF2-194 C	46.1021	Adder	54.24
959032	AF2-194 E	124.3596	Adder	146.31
959051	AF2-196 C	3.4547	Adder	4.06
959052	AF2-196 E	8.0611	Adder	9.48
959161	AF2-207 C O1	7.1013	Adder	8.35
959162	AF2-207 E O1	10.6520	Adder	12.53
959571	AF2-248 C	1.1941	Adder	1.4
959572	AF2-248 E	1.3345	Adder	1.57
959581	AF2-249 C	0.2107	Adder	0.25
959582	AF2-249 E	0.8429	Adder	0.99
959591	AF2-250 C	0.3863	Adder	0.45
959592	AF2-250 E	0.2985	Adder	0.35
960221	AF2-313 C	2.7242	Adder	3.2
960222	AF2-313 E	1.5444	Adder	1.82
960341	AF2-325 C	1.2765	Adder	1.5
960342	AF2-325 E	1.7627	Adder	2.07
960671	AF2-358 C O1	18.9909	Adder	22.34
960672	AF2-358 E O1	12.6606	Adder	14.89
960871	AF2-378 C	0.3393	Adder	0.4
960872	AF2-378 E	0.4708	Adder	0.55
960881	AF2-379 C	0.5677	Adder	0.67
960882	AF2-379 E	0.7823	Adder	0.92
960941	AF2-385 C	16.8375	Adder	19.81
960942	AF2-385 E	9.5812	Adder	11.27
960961	AF2-387 C O1	15.0900	Adder	17.75
960962	AF2-387 E O1	7.5676	Adder	8.9
961181	AF2-409 O1	31.1721	Adder	36.67
962161	AG1-061 C O1	12.0296	Adder	26.7
962162	AG1-061 E O1	8.0198	Adder	17.8
962261	AG1-072	6.0043	Adder	13.33
962302	AG1-079 E	0.2561	Adder	0.57
962381	AG1-087 C O1	58.9669	50/50	58.9669
962382	AG1-087 E O1	159.0619	50/50	159.0619
963001	AG1-149	0.5528	Adder	1.23
963011	AG1-150	7.5167	Adder	16.69
964551	AG1-318 C	0.0608	Adder	0.13
964552	AG1-318 E	0.1419	Adder	0.31
964962	AG1-360 E	1.6178	Adder	3.59
965321	AG1-397 C	0.7937	Adder	1.76
965322	AG1-397 E	1.0949	Adder	2.43
965611	AG1-429 C O1	6.6177	Adder	14.69
965612	AG1-429 E O1	4.4105	Adder	9.79

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

11.6.9 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
166842299	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	197.37	198.93	DC	12.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	-9.2465	Adder	-10.88
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635
923952	AB2-036 E	20.7187	50/50	20.7187
924681	AB2-120 C	6.4703	Adder	7.61

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
926131	AC1-091 C	0.6418	Adder	0.76
926132	AC1-091 E	1.0526	Adder	1.24
926141	AC1-092 C	0.6418	Adder	0.76
926142	AC1-092 E	1.0526	Adder	1.24
926151	AC1-093 C	0.6076	Adder	0.71
926152	AC1-093 E	1.0013	Adder	1.18
926161	AC1-094 C	0.5135	Adder	0.6
926162	AC1-094 E	0.8472	Adder	1.0
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933631	AC2-185 C	1.3008	Adder	1.53
933632	AC2-185 E	2.1223	Adder	2.5
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O1	13.7777	50/50	13.7777
962162	AG1-061 E O1	9.1851	50/50	9.1851
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O1	8.5411	Adder	18.96
962382	AG1-087 E O1	23.0393	Adder	51.14
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
166842309	232106	MIDLTNTP	DP&L	232104	MT PLSNT	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	177.64	179.21	DC	12.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	27.1217	50/50	27.1217
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635
923952	AB2-036 E	20.7187	50/50	20.7187

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925254	AB2-179 E	8.8503	50/50	8.8503
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52
945662	AF1-231 E	1.9442	Adder	2.29

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O1	13.7777	50/50	13.7777
962162	AG1-061 E O1	9.1851	50/50	9.1851
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O1	8.5411	Adder	18.96
962382	AG1-087 E O1	23.0393	Adder	51.14
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O1	3.1865	Adder	7.07
965612	AG1-429 E O1	2.1237	Adder	4.71
965821	AG1-450	5.7923	50/50	5.7923

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

11.6.11 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
166842294	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A	tower	348.0	203.1	204.67	DC	12.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	27.1217	50/50	27.1217
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635
923952	AB2-036 E	20.7187	50/50	20.7187

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925254	AB2-179 E	8.8503	50/50	8.8503
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52
945662	AF1-231 E	1.9442	Adder	2.29

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O1	13.7777	50/50	13.7777
962162	AG1-061 E O1	9.1851	50/50	9.1851
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O1	8.5411	Adder	18.96
962382	AG1-087 E O1	23.0393	Adder	51.14
963001	AG1-149	0.6129	50/50	0.6129
963011	AG1-150	3.6105	Adder	8.01
964551	AG1-318 C	0.0249	Adder	0.06
964552	AG1-318 E	0.0581	Adder	0.13
964962	AG1-360 E	0.8026	Adder	1.78
965321	AG1-397 C	0.3777	Adder	0.84
965322	AG1-397 E	0.5210	Adder	1.16
965611	AG1-429 C O1	3.1865	Adder	7.07
965612	AG1-429 E O1	2.1237	Adder	4.71
965821	AG1-450	5.7923	50/50	5.7923

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

11.6.12 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
168024737	962380	AG1-087 TAP	DP&L	232004	MILF_230	DP&L	1	CKT 23032B	single	804.0	111.36	121.79	DC	83.84

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

11.7 Queue Dependencies

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

Queue Number	Project Name	Status
AA1-102	Kings Creek-Loretto 138kV	Partially in Service - Under Construction
AA2-069	Cartanza 230kV	Suspended
AB1-056	Indian River 230kV I	Engineering and Procurement
AB1-137	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
AB1-176	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
AB2-120	Piney Grove-New Church 138kV	Active
AB2-130	Laurel 69kV	Active
AB2-133	Chestertown-Church 69kV	Engineering and Procurement
AB2-135	Church-Kent 69kV	Active
AB2-136	West Cambridge-Vienna 69kV	Active
AB2-153	Church-Wye Mills 138 kV	Engineering and Procurement
AB2-172	Todd 69kV	Active
AB2-179	Townsend 138kV	Engineering and Procurement
AB2-180	Rockawalkin 69kV	Engineering and Procurement
AB2-185	Wye Mills 25kV	Active
AC1-091	Cedar Creek 138kV I	Active
AC1-092	Cedar Creek 138kV II	Active
AC1-093	Cedar Creek 138kV III	Active
AC1-094	Cedar Creek 138kV IV	Active
AC1-190	East New Market 69kV	Active
AC1-213	North Salisbury 25kV	Active
AC2-023	Hebron 69kV	Active
AC2-185	Cedar Creek 138kV II	Active
AC2-186	Harrington 25kV	Active
AD2-059	Chapel Street 138 kV	Active
AD2-076	Centreville 69 kV	Active
AE1-087	Todd 69 kV	Active
AE1-107	Mt. Pleasant-Lums Pond 138 kV	Active
AE1-117	Bethany 138 kV	Active
AE1-145	Wallops Island 69 kV	Active
AE2-093	Easton-Steele 138 kV	Active
AE2-112	Carville 138 kV	Active
AE2-257	Cedar Neck 69 kV	Active
AF1-007	Indian River 230 kV I	Active

Queue Number	Project Name	Status
AF1-015	Easton-Steele 138 kV	Active
AF1-036	Carville 138 kV	Active
AF1-231	New Church 138 kV	Active
AF1-244	Kingston 12 kV	Active
AF1-258	Rockawalkin 69 kV	Engineering and Procurement
AF1-259	Price 25 kV	Engineering and Procurement
AF2-038	Printz 230 kV	Active
AF2-055	Plaintation Creek 69 kV	Active
AF2-060	Wattsville 12 kV	Active
AF2-061	Wattsville 69kV	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
AF2-207	Nelson 69 kV	Active
AF2-248	Edgewood 12 kV I	Active
AF2-249	Edgewood 12 kV II	Active
AF2-250	Edgewood 12 kV III	Active
AF2-313	Price 69 kV	Active
AF2-325	Jacktown 12 kV	Active
AF2-358	Airey-Vienna 69 kV	Active
AF2-378	Cambridge 12 kV	Active
AF2-379	Princess Anne 25 kV	Engineering and Procurement
AF2-385	Nelson 69 kV	Active
AF2-387	Hillsboro-Steele 138 kV	Active
AF2-409	Vienna 138 kV	Active
AG1-061	Laurel-Sharptown 69 kV	Active
AG1-072	Hillsboro-Steele 138 kV II	Active
AG1-079	New Meredith 69 kV	Active
AG1-087	Milford-Cartanza 230 kV	Active
AG1-149	Kingston 12 kV II	Active
AG1-150	Wattsville 69 kV II	Active
AG1-318	Ocean Bay 12 kV	Active
AG1-360	Costen 25 kV	Active
AG1-397	Walston 12 kV	Active
AG1-429	Tasley 69 kV	Active
AG1-450	Airey-Vienna 69 kV II	Active
AG1-461	Mumford 69 kV	Active
AG1-464	Harrington 69 kV	Active
AG1-497	Cartanza 230 kV	Active
AG1-529	Farmview 138 kV	Active
W1-003	Oak Hall	In Service
W1-004	Oak Hall	In Service
W1-005	Oak Hall	In Service
W1-006	Oak Hall	In Service
W1-062	Clayton 138kV	In Service
W3-032A	Cartanza 230kV	In Service
X1-032	Costen 25kV	In Service
X2-083	Newark 12kV	In Service
X3-008	Todd 69kV	Under Construction
X3-066	Church Hill 69kV	In Service
Y1-079	Wye Mills 69kV	In Service
Y1-080	Dorchester 12kV	In Service

Queue Number	Project Name	Status
Y3-058	Rockawalkin 69kV	In Service
Z2-076	Worcester South 25kV	In Service
Z2-077	Worcester North 25kV	In Service

11.8 Contingency Descriptions

Contingency Name	Contingency Definition
PECO_P1-2_220-84	CONTINGENCY 'PECO_P1-2_220-84' /* \$ DELCO \$ 220-84 \$ LB TRIP BRANCH FROM BUS 214235 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 \$ DELCO \$ 220-84 \$ L END
TS_P1-2_#T6	CONTINGENCY 'TS_P1-2_#T6' OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 END
JC-P1-2-JCC-500-003	CONTINGENCY 'JC-P1-2-JCC-500-003' /* NEWFRDM - WINDSOR 500.00 LINE DISCONNECT BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 /* NEWFRDM - WINDSOR 500.00 LINE END
DPL_P7_1_DBL_3NC	CONTINGENCY 'DPL_P7_1_DBL_3NC' /* HARMNY-KEENY 230;KEENY- CHRYSLR 230 OPEN LINE FROM BUS 231002 TO BUS 231003 CKT 1 OPEN LINE FROM BUS 231123 TO BUS 231115 CKT 1 END
PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	CONTINGENCY 'PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L' DISCONNECT BUS 213627 /* CHICHST1 230.00 FOULK8 230.00 \$ DELCO \$ PECO_P1-2_220-04 \$ L END
PJM500_PS_P1-2_5015	CONTINGENCY 'PJM500_PS_P1-2_5015' /* HOPE CREEK TO RED LION TRIP LINE FROM BUS 200027 TO BUS 200029 CKT 1 /* HOPE CREEK TO RED LION END
PJM500_PS_P1-2_HOPE-SILVER	CONTINGENCY 'PJM500_PS_P1-2_HOPE-SILVER' /* HOPE CREEK TO SILVER RUN DISCONNECT BUS 232012 DISCONNECT BUS 232014 END
PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L' DISCONNECT BUS 214236 /* LINWOOD85 230.00 \$ DELCO \$ PECO_P1-2_220-85 \$ L END

Contingency Name	Contingency Definition
DPL_P7_1_DBL_4NC	CONTINGENCY 'DPL_P7_1_DBL_4NC' /* RED LION-SILVER RUN 230;RED LION-SILVER RUN 230 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 1 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 2 END
DPL_P1_2_AB2-037 KEENEY	CONTINGENCY 'DPL_P1_2_AB2-037 KEENEY' OPEN LINE FROM BUS 923960 TO BUS 231003 CIRCUIT 2 END
DPL_P1_2_CKT 23001	CONTINGENCY 'DPL_P1_2_CKT 23001' OPEN LINE FROM BUS 231003 TO BUS 232000 CIRCUIT 1 /* #1 KEENEY EHV - STEELE 230 END
DPL_P7_1_DBL_1NCB_FSA	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA' /* #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 OPEN LINE FROM BUS 232000 TO BUS 923960 CKT 2 DISCONNECT BUS 923961 DISCONNECT BUS 923962 END
PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L' TRIP BRANCH FROM BUS 200064 TO BUS 200004 CKT 1 /* PCHBTM1S 500.00 CNASTONE 500.00 \$ CHESCO \$ PECO_P1-2_5012 \$ L END
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_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L	CONTINGENCY 'PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L' DISCONNECT BUS 214235 /* LINWOOD84 230.00 \$ DELCO \$ PECO_P1-2_220-84 \$ L END
DPL_P1_2_CKT 23033-A	CONTINGENCY 'DPL_P1_2_CKT 23033-A' OPEN LINE FROM BUS 232003 TO BUS 962380 CIRCUIT 1 /CARTANZA - AG1-087 TAP 230 END

Contingency Name	Contingency Definition
DPL_P1_2_CKT 23033-B	CONTINGENCY 'DPL_P1_2_CKT 23033-B' OPEN LINE FROM BUS 962380 TO BUS 232004 CIRCUIT 1 /AG1-087 TAP - MILFORD 230 END
PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PECO_P1-2_5014 \$ L END
Base Case	
DPL_P1_2_CKT 23031	CONTINGENCY 'DPL_P1_2_CKT 23031' OPEN LINE FROM BUS 232002 TO BUS 232004 CIRCUIT 1 /CEDAR CREEK - MILFORD 230 END
PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC' TRIP BRANCH FROM BUS 214236 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 \$ DELCO \$ 220-85 \$ L END

12 Short Circuit Analysis

The following Breakers are overdutied

Bus Number	Bus Name	BREAKER	Type	Capacity (Amps)	Duty Percentage Post Queue	Duty Percentage Pre Queue

12.1 System Reinforcements - Short Circuit

13 Affected Systems

None

14 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AG1-497 was evaluated as a 120 MW (Capacity 84 MW) injection tapping the W3-032A-230 to Cartanza 230 kV line in the DPL area. Project AG1-497 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-497 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)

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
175146157	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1_2_CKT 23033	single	790.0	98.3	108.92	DC	83.84
175146345	232003	CARTANZA	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	CKT 23032B	single	804.0	96.59	107.02	DC	83.84
175580172	962380	AG1-087 TAP	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	single	550.0	95.43	101.8	DC	35.88

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
174496109	200012	NEWFRDM	500.0	PSE&G	200028	WINDSOR	500.0	JCP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	2983.0	116.32	116.88	DC	35.57
174496006	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PECO	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	141.51	142.48	DC	61.49
174326981	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	TS_P4_#T7_FUR RUN 500_CB3	breaker	3620.0	124.95	125.6	DC	49.54
174326939	200066	PCHBTM1N	500.0	PECO	270072	FUR RUN_500	500.0	PJM	1	PJM_500_BG_P4_5_CN STN_B	breaker	3609.0	133.38	133.98	DC	44.9
174496150	219702	HILLTOP_2	230.0	PSE&G	219101	BEAVERBK_1	230.0	PSE&G	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	740.0	107.24	107.73	DC	7.99
168024755	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	118.79	119.35	DC	11.41
168024786	231001	EDGEEMRS	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	117.48	117.98	DC	10.15
175325800	231001	EDGEEMRS	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	DPL_P1_2_CKT 23015	single	804.0	116.71	117.2	DC	10.13
174327018	231002	HARMONY	230.0	DP&L	231001	EDGEEMRS	230.0	DP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	924.0	118.53	119.75	DC	25.3
165434076	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	108.1	108.8	DC	12.49
174327103	231003	KEEN_230	230.0	DP&L	231002	HARMONY	230.0	DP&L	2	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	804.0	105.22	106.14	DC	16.59
174327039	232000	STEELE	230.0	DP&L	923960	AB2-037 TAP	230.0	DP&L	2	DPL_P4-2_DP8	breaker	727.0	114.45	115.61	DC	18.87
174326796	232002	CEDARCK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP11	breaker	678.0	193.8	195.51	DC	29.06

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/D C	MW IMPACT
165145871	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	790.0	135.56	144.54	DC	71.45
165145872	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P2-2_DP1	bus	790.0	134.58	143.55	DC	71.32
165146149	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P7_1_DBL_1NCB_FSA	tower	790.0	177.99	187.94	DC	79.25
165146150	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P7_1_DBL_6NC	tower	790.0	136.66	145.66	DC	71.61
174115846	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P4-2_DP11	breaker	790.0	181.01	191.28	DC	81.82
165146204	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	138.62	145.04	DC	72.32
174327005	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_DPL_P4_2_REDLION-HOPE AT51	breaker	1117.0	118.77	121.11	DC	35.8
174496082	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_DPL_P4_2_REDLION-HOPE AT50	breaker	1117.0	117.92	120.22	DC	35.08
174326920	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	DPL_P4-2_DP11	breaker	678.0	131.0	136.47	DC	37.03
174327021	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	2	DPL_P4-2_DP11	breaker	790.0	112.86	117.56	DC	37.08
166842299	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	198.4	199.97	DC	12.52
166842309	232106	MIDLTNT P	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	178.68	180.24	DC	12.52
166842294	232107	TOWNSE ND	138.0	DP&L	232106	MIDLTNT P	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	204.14	205.7	DC	12.52
166842295	232107	TOWNSE ND	138.0	DP&L	232106	MIDLTNT P	138.0	DP&L	1	DPL_P7_1_DBL_4NC	tower	348.0	141.98	143.09	DC	9.39
174326959	232112	FELTON	138.0	DP&L	232110	CHESWOL D	138.0	DP&L	1	DPL_P4-2_DP11	breaker	242.0	121.54	122.79	DC	6.79
174326930	232114	SHARNGT N	138.0	DP&L	232112	FELTON	138.0	DP&L	1	DPL_P4-2_DP11	breaker	242.0	130.26	131.51	DC	6.79
166842454	923950	AB2-036 TAP	138.0	DP&L	232100	CHURCH	138.0	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	100.12	100.96	DC	6.53
174326953	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P4-2_DP8	breaker	727.0	128.19	129.35	DC	18.87
174116035	962380	AG1-087 TAP	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	DPL_P4-2_DP12	breaker	550.0	116.09	117.28	DC	6.55
174740630	966280	AG1-497 TAP	230.0	DP&L	232003	CARTANZA	230.0	DP&L	1	Base Case	single	350.0	217.2	241.16	DC	83.86

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 PROJECTIONS T LOADING %	POST PROJECTIONS T LOADING %	AC/D C	MW IMPACT
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ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPAC T
1677513 31	20001 2	NEWFRD M	500.0	PSE&G	20002 8	WINDSOR	500.0	JCP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	2983.0	116.17	116.73	DC	35.57
1677511 99	20005 1	ROCKSPG S	500.0	PJM	20006 5	PCHBTM2S	500.0	PECO	1	JC-P1-2-JCC-500-003	operation	2905.0	139.79	140.76	DC	61.01
1677512 88	20006 4	PCHBTM1 S	500.0	PECO	20000 4	CNASTONE	500.0	BGE	1	TS_P1-2_#T6	operation	3620.0	122.04	122.68	DC	49.45
1677512 90	20006 4	PCHBTM1 S	500.0	PECO	20000 4	CNASTONE	500.0	BGE	1	Base Case	operation	2920.0	107.96	108.58	DC	38.24
1677512 25	20006 6	PCHBTM1 N	500.0	PECO	27007 2	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	3609.0	131.71	132.31	DC	45.33
1677513 98	21348 9	CHICHST1	230.0	PECO	21358 8	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	operation	1079.0	108.88	109.38	DC	11.77
1677514 23	21970 2	HILLTOP_2	230.0	PSE&G	21910 1	BEAVERBK _1	230.0	PSE&G	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	740.0	106.2	106.69	DC	7.99
1680247 53	23100 0	CLAY_230	230.0	DP&L	21423 5	LINWOOD 84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	155.84	156.77	DC	16.3
1680247 57	23100 0	CLAY_230	230.0	DP&L	21423 5	LINWOOD 84	230.0	PECO	1	Base Case	operation	650.0	109.53	110.22	DC	9.72
1680247 68	23100 1	EDGEMR 5	230.0	DP&L	21423 6	LINWOOD 85	230.0	PECO	1	Base Case	operation	650.0	106.55	107.14	DC	8.43
1680247 84	23100 1	EDGEMR 5	230.0	DP&L	23100 0	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	150.47	151.3	DC	14.5
1680247 88	23100 1	EDGEMR 5	230.0	DP&L	23100 0	CLAY_230	230.0	DP&L	1	Base Case	operation	650.0	106.32	106.89	DC	8.19
1753257 99	23100 1	EDGEMR 5	230.0	DP&L	21423 6	LINWOOD 85	230.0	PECO	1	DPL_P1_2_CK T 23015	operation	804.0	149.64	150.47	DC	14.47
1680249 74	23100 2	HARMON Y	230.0	DP&L	23100 1	EDGEMR 5	230.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	924.0	117.34	118.56	DC	25.3
1680250 67	23100 3	KEEN_23 0	230.0	DP&L	23100 2	HARMONY	230.0	DP&L	2	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	804.0	104.28	105.2	DC	16.59
1680249 41	23112 4	GLASGO W	138.0	DP&L	23113 0	CECIL138	138.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	378.0	123.23	124.42	DC	10.2
1680248 35	23200 0	STEELE	230.0	DP&L	23100 3	KEEN_230	230.0	DP&L	1	DPL_P1_2_AB 2-037 KEENEY	operation	552.0	139.53	140.8	DC	15.75
1680249 97	23200 0	STEELE	230.0	DP&L	92396 0	AB2-037 TAP	230.0	DP&L	2	DPL_P1_2_CK T 23001	operation	727.0	114.43	115.59	DC	18.77
1680246 89	23200 2	CEDAR CK	230.0	DP&L	23201 3	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	678.0	179.91	183.0	DC	53.49
1680246 91	23200 2	CEDAR CK	230.0	DP&L	23201 3	SILVER RUN	230.0	PJM	1	Base Case	operation	550.0	140.8	141.32	DC	17.07
1680247 05	23200 3	CARTANZ A	230.0	DP&L	23201 3	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	162.73	173.62	DC	71.32

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS LOADIN G %	POST PROJECTIONS LOADIN G %	AC/D C	MW IMPACT
1751463 44	23200 3	CARTANZ A	230.0	DP&L	23200 4	MILF_230	230.0	DP&L	1	CKT 23032B	operation	804.0	96.78	111.68	DC	119.77
1751463 46	23200 3	CARTANZ A	230.0	DP&L	23200 4	MILF_230	230.0	DP&L	1	Base Case	operation	650.0	94.46	101.92	DC	48.45
1680247 69	23200 4	MILF_230	230.0	DP&L	23200 2	CEDAR CK	230.0	DP&L	1	CKT 23032B	operation	738.0	146.58	152.34	DC	42.95
1680247 71	23200 4	MILF_230	230.0	DP&L	23200 2	CEDAR CK	230.0	DP&L	1	Base Case	operation	650.0	100.48	101.45	DC	14.09
1751463 11	23200 4	MILF_230	230.0	DP&L	23200 3	CARTANZA	230.0	DP&L	1	CKT 23030B	operation	804.0	116.23	116.89	DC	10.24
1753257 36	23200 4	MILF_230	230.0	DP&L	96238 0	AG1-087 TAP	230.0	DP&L	1	CKT 23032B	operation	550.0	161.8	171.13	DC	51.26
1753257 37	23200 4	MILF_230	230.0	DP&L	96238 0	AG1-087 TAP	230.0	DP&L	1	Base Case	operation	550.0	105.87	110.17	DC	23.63
1677513 17	23201 2	HOPE CREEK	230.0	PJM	20002 9	HOPE CRK	500.0	PSE&G	1	PJM500_PS_P1-2_5015	operation	1117.0	116.33	118.55	DC	33.73
1680248 44	23201 3	SILVER RUN	230.0	PJM	23100 4	RL_230	230.0	DP&L	1	PJM500_PS_P1-2_HOPE-SILVER	operation	678.0	128.23	134.45	DC	42.49
1680249 67	23201 3	SILVER RUN	230.0	PJM	23100 4	RL_230	230.0	DP&L	2	PJM500_PS_P1-2_HOPE-SILVER	operation	790.0	110.47	115.81	DC	42.55
1677514 81	27007 3	FUR RUN_230	230.0	PJM	22096 3	CONASTO N	230.0	BGE	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	1315.0	99.95	100.42	DC	13.21
1677514 83	27007 3	FUR RUN_230	230.0	PJM	22096 3	CONASTO N	230.0	BGE	2	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	1315.0	99.95	100.42	DC	13.21
1697859 06	92396 0	AB2-037 TAP	230.0	DP&L	23100 3	KEEN_230	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	128.1	129.25	DC	18.77
1697859 08	92396 0	AB2-037 TAP	230.0	DP&L	23100 3	KEEN_230	230.0	DP&L	2	Base Case	operation	650.0	108.19	109.16	DC	14.06
1753259 04	96238 0	AG1-087 TAP	230.0	DP&L	23200 4	MILF_230	230.0	DP&L	1	DPL_P1_1_IR 4 GEN	operation	550.0	110.49	111.56	DC	5.92
1755801 70	96238 0	AG1-087 TAP	230.0	DP&L	23200 0	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	197.96	207.28	DC	51.26
1755801 71	96238 0	AG1-087 TAP	230.0	DP&L	23200 0	STEELE	230.0	DP&L	1	Base Case	operation	550.0	134.75	139.05	DC	23.63
1747406 29	96628 0	AG1-497 TAP	230.0	DP&L	23200 3	CARTANZA	230.0	DP&L	1	Base Case	operation	350.0	217.56	251.79	DC	119.8

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
174115846	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP11	breaker	790.0	181.01	191.28	DC	81.82

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

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

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

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
175146345	232003	CARTANZA	DP&L	232004	MILF_230	DP&L	1	CKT 23032B	single	804.0	96.59	107.02	DC	83.84

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232616	GEN FOOD	2.3934	80/20	2.3934
232901	NORTHST	7.2432	80/20	7.2432
232922	MR3 (Deactivation : 01/06/2021)	101.8011	80/20	101.8011
233920	W3-032A-CTG1	30.3901	80/20	30.3901
233921	W3-032A-STG1	18.2970	80/20	18.2970
919831	AA2-069 (Suspended)	450.1206	80/20	450.1206
966281	AG1-497 C O2	83.8362	80/20	83.8362
CALDERWOOD	CALDERWOOD	0.0969	Confirmed LTF	0.0969
NY	NY	0.1078	Confirmed LTF	0.1078
PRAIRIE	PRAIRIE	0.5037	Confirmed LTF	0.5037
CHEOAH	CHEOAH	0.0976	Confirmed LTF	0.0976
COTTONWOOD	COTTONWOOD	0.4095	Confirmed LTF	0.4095
HAMLET	HAMLET	0.1126	Confirmed LTF	0.1126
GIBSON	GIBSON	0.1065	Confirmed LTF	0.1065
BLUEG	BLUEG	0.3385	Confirmed LTF	0.3385
TRIMBLE	TRIMBLE	0.1085	Confirmed LTF	0.1085
CATAWBA	CATAWBA	0.0682	Confirmed LTF	0.0682

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
175580172	962380	AG1-087 TAP	DP&L	232000	STEELE	DP&L	1	CKT 23032B	single	550.0	95.43	101.8	DC	35.88

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
231940	T-011	0.1557	80/20	0.1557
232404	W1-003 C	0.4717	80/20	0.4717
232406	W1-004 C	0.4717	80/20	0.4717
232408	W1-005 C	0.4717	80/20	0.4717
232410	W1-006 C	0.4717	80/20	0.4717
232432	Z2-076 C	0.1953	80/20	0.1953
232434	Z2-077 C	0.1953	80/20	0.1953
232616	GEN FOOD	1.0243	80/20	1.0243
232901	NORTHST	3.0998	80/20	3.0998
232904	IR4	22.8105	80/20	22.8105
232905	BAYVIEW1	0.4436	80/20	0.4436
232912	OH NUG1	1.2838	80/20	1.2838
232913	OH NUG2	1.2667	80/20	1.2667
232914	OH NUG3	1.2838	80/20	1.2838
232915	OH NUG4	1.2838	80/20	1.2838
232916	OH NUG5	1.2838	80/20	1.2838
232917	OH NUG6	1.2781	80/20	1.2781
232918	OH NUG7	1.2753	80/20	1.2753
232920	IR10	0.8460	80/20	0.8460
232921	TASLEY2G	0.8541	80/20	0.8541
232922	MR3 (Deactivation : 01/06/2021)	43.5673	80/20	43.5673
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.2178	80/20	0.2178
233920	W3-032A-CTG1	13.0059	80/20	13.0059
233921	W3-032A-STG1	7.8305	80/20	7.8305
917081	CHERRYDALE C	0.2697	80/20	0.2697
919831	AA2-069 (Suspended)	192.6356	80/20	192.6356
923921	AB2-032 C	-1.1533	Adder	-1.36
924681	AB2-120 C	8.6146	80/20	8.6146
924781	AB2-130 C O1	7.5482	80/20	7.5482
924971	AB2-153 C	-0.6445	Adder	-0.76
925261	AB2-180 C	2.1396	Adder	2.52
926131	AC1-091 C	0.9654	Adder	1.14
926141	AC1-092 C	0.9654	Adder	1.14
926151	AC1-093 C	0.9139	Adder	1.08
926161	AC1-094 C	0.7723	Adder	0.91
927191	AC1-213 C	0.5509	Adder	0.65
930201	AB1-056 C	22.6050	80/20	22.6050
932161	AC2-023 C	3.7101	Adder	4.36
933631	AC2-185 C	1.9566	Adder	2.3
933641	AC2-186 C	4.9962	80/20	4.9962

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938896	AE1-117 E	42.0621	80/20	42.0621
939151	AE1-145	4.5308	80/20	4.5308
942441	AE2-257 C	10.9530	80/20	10.9530
943361	AF1-007 C	0.6669	80/20	0.6669
945661	AF1-231 C	1.7073	80/20	1.7073
945791	AF1-244	1.3657	Adder	1.61
945931	AF1-258	0.4891	Adder	0.58
945941	AF1-259	-0.0657	Adder	-0.08
957611	AF2-055 C	7.8722	80/20	7.8722
957661	AF2-060	2.0389	80/20	2.0389
957671	AF2-061 O1	9.0616	80/20	9.0616
959021	AF2-193 C	41.7702	80/20	41.7702
959031	AF2-194 C	41.7702	80/20	41.7702
959051	AF2-196 C	2.9872	80/20	2.9872
959161	AF2-207 C O1	3.5134	Adder	4.13
959571	AF2-248 C	0.5899	Adder	0.69
959581	AF2-249 C	0.1041	Adder	0.12
959591	AF2-250 C	0.1908	Adder	0.22
960671	AF2-358 C O1	4.6609	Adder	5.48
960881	AF2-379 C	0.2699	Adder	0.32
960941	AF2-385 C	9.8004	80/20	9.8004
962161	AG1-061 C O2	4.1737	Adder	9.26
962381	AG1-087 C O2	53.7975	80/20	53.7975
963001	AG1-149	0.2714	Adder	0.6
963011	AG1-150	9.0616	80/20	9.0616
964551	AG1-318 C	0.0978	80/20	0.0978
965321	AG1-397 C	0.9740	80/20	0.9740
965611	AG1-429 C O2	7.9307	80/20	7.9307
965921	AG1-461 C O2	5.0634	80/20	5.0634
965951	AG1-464 C O2	5.2592	80/20	5.2592
966281	AG1-497 C O2	35.8789	80/20	35.8789
966601	AG1-529 C	17.5267	80/20	17.5267
CALDERWOOD	CALDERWOOD	0.1337	Confirmed LTF	0.1337
NY	NY	0.0874	Confirmed LTF	0.0874
PRAIRIE	PRAIRIE	0.6922	Confirmed LTF	0.6922
CHEOAH	CHEOAH	0.1346	Confirmed LTF	0.1346
COTTONWOOD	COTTONWOOD	0.5649	Confirmed LTF	0.5649
HAMLET	HAMLET	0.1571	Confirmed LTF	0.1571
GIBSON	GIBSON	0.1463	Confirmed LTF	0.1463
BLUEG	BLUEG	0.4652	Confirmed LTF	0.4652
TRIMBLE	TRIMBLE	0.1491	Confirmed LTF	0.1491
CATAWBA	CATAWBA	0.0948	Confirmed LTF	0.0948

14.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174496109	200012	NEWFRDM	PSE&G	200028	WINDSOR	JCP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	2983.0	116.32	116.88	DC	35.57

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

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

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

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174496006	200051	ROCKSPGS	PJM	200065	PCHBTM2S	PECO	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	141.51	142.48	DC	61.49

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

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

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174326981	200064	PCHBTM1S	PECO	200004	CNASTONE	BGE	1	TS_P4_#T7_FUR RUN 500_CB 3	breaker	3620.0	124.95	125.6	DC	49.54

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

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

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

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

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

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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
174326939	200066	PCHBTM1N	PECO	270072	FUR RUN_500	PJM	1	PJM_500_BG_P4_5_CNSTN_B	breaker	3609.0	133.38	133.98	DC	44.9

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

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

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

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958811	AF2-172 C (Withdrawn : 01/14/2021)	0.9159	Adder	1.08
958812	AF2-172 E (Withdrawn : 01/14/2021)	1.4944	Adder	1.76
959021	AF2-193 C	37.9464	Adder	44.64
959022	AF2-193 E	102.3597	Adder	120.42
959031	AF2-194 C	37.9464	Adder	44.64
959032	AF2-194 E	102.3597	Adder	120.42
959051	AF2-196 C	2.8699	Adder	3.38
959052	AF2-196 E	6.6964	Adder	7.88
959161	AF2-207 C O1	6.4320	Adder	7.57
959162	AF2-207 E O1	9.6480	Adder	11.35
959571	AF2-248 C	1.0848	Adder	1.28
959572	AF2-248 E	1.2124	Adder	1.43
959581	AF2-249 C	0.1914	Adder	0.23
959582	AF2-249 E	0.7657	Adder	0.9
959591	AF2-250 C	0.3510	Adder	0.41
959592	AF2-250 E	0.2712	Adder	0.32
960221	AF2-313 C	3.9903	Adder	4.69
960222	AF2-313 E	2.2622	Adder	2.66
960341	AF2-325 C	1.3395	Adder	1.58
960342	AF2-325 E	1.8497	Adder	2.18
960671	AF2-358 C O1	19.1454	Adder	22.52
960672	AF2-358 E O1	12.7636	Adder	15.02
960871	AF2-378 C	0.3540	Adder	0.42
960872	AF2-378 E	0.4912	Adder	0.58
960881	AF2-379 C	0.5234	Adder	0.62
960882	AF2-379 E	0.7213	Adder	0.85
960941	AF2-385 C	15.2505	Adder	17.94
960942	AF2-385 E	8.6781	Adder	10.21
960961	AF2-387 C O1	21.1721	Adder	24.91
960962	AF2-387 E O1	10.6179	Adder	12.49
961181	AF2-409 O1	31.9489	Adder	37.59
961621	AG1-001 C	1.5053	Adder	3.34
961622	AG1-001 E	2.4560	Adder	5.45
962161	AG1-061 C O2	11.0981	Adder	24.64
962162	AG1-061 E O2	7.3987	Adder	16.42
962261	AG1-072	8.4243	Adder	18.7
962302	AG1-079 E	0.2503	Adder	0.56
962381	AG1-087 C O2	20.1137	Adder	44.65
962382	AG1-087 E O2	54.2564	Adder	120.44
962611	AG1-110	2.4956	Adder	5.54
962621	AG1-111	1.2726	Adder	2.82
962801	AG1-129 C O2	4.6002	Adder	10.21
962802	AG1-129 E O2	3.0668	Adder	6.81
963001	AG1-149	0.5075	Adder	1.13
963011	AG1-150	6.7652	Adder	15.02
963092	AG1-158 E	2.0440	Adder	4.54
964001	AG1-254 C	3.2122	Adder	7.13
964002	AG1-254 E	1.6124	Adder	3.58
964011	AG1-255 C	5.0930	Adder	11.31
964012	AG1-255 E	2.5465	Adder	5.65
964371	AG1-299 C	0.2313	Adder	0.51

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964372	AG1-299 E	0.1542	Adder	0.34
964381	AG1-300 C	0.3855	Adder	0.86
964382	AG1-300 E	0.2570	Adder	0.57
964551	AG1-318 C	0.0507	Adder	0.11
964552	AG1-318 E	0.1183	Adder	0.26
964962	AG1-360 E	1.4801	Adder	3.29
965321	AG1-397 C	0.7085	Adder	1.57
965322	AG1-397 E	0.9773	Adder	2.17
965611	AG1-429 C O2	5.9637	Adder	13.24
965612	AG1-429 E O2	3.9747	Adder	8.82
965821	AG1-450	4.2277	Adder	9.38
965921	AG1-461 C O2	3.2954	Adder	7.31
965922	AG1-461 E O2	1.7745	Adder	3.94
965951	AG1-464 C O2	3.3685	Adder	7.48
965952	AG1-464 E O2	5.0527	Adder	11.22
966281	AG1-497 C O2	14.1597	Adder	31.43
966282	AG1-497 E O2	6.0685	Adder	13.47
966301	AG1-499 C	0.9525	Adder	2.11
966302	AG1-499 E	0.6350	Adder	1.41
966601	AG1-529 C	8.2540	Adder	18.32
966602	AG1-529 E	4.4055	Adder	9.78
G-007A	G-007A	45.7419	Confirmed LTF	45.7419
VFT	VFT	113.2685	Confirmed LTF	113.2685
CALDERWOOD	CALDERWOOD	4.1818	Confirmed LTF	4.1818
PRAIRIE	PRAIRIE	21.2271	Confirmed LTF	21.2271
CHEOAH	CHEOAH	4.2147	Confirmed LTF	4.2147
CBM-N	CBM-N	18.5148	Confirmed LTF	18.5148
COTTONWOOD	COTTONWOOD	17.4909	Confirmed LTF	17.4909
HAMLET	HAMLET	5.0375	Confirmed LTF	5.0375
GIBSON	GIBSON	4.4581	Confirmed LTF	4.4581
BLUEG	BLUEG	14.1779	Confirmed LTF	14.1779
TRIMBLE	TRIMBLE	4.5433	Confirmed LTF	4.5433
CATAWBA	CATAWBA	3.0173	Confirmed LTF	3.0173

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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
174496150	219702	HILLTOP_2	PSE&G	219101	BEAVERBK_1	PSE&G	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	740.0	107.24	107.73	DC	7.99

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

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

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
932362	AC2-050 E O1	0.3619	Adder	0.43
933631	AC2-185 C	0.8663	Adder	1.02
933632	AC2-185 E	1.4134	Adder	1.66
933641	AC2-186 C	1.0197	Adder	1.2
933642	AC2-186 E	1.6637	Adder	1.96
933962	AD1-019 E	0.5291	Adder	0.62
936501	AD2-065 C	0.1147	50/50	0.1147
936502	AD2-065 E	0.1582	50/50	0.1582
936611	AD2-076 C O1	0.8760	Adder	1.03
936612	AD2-076 E O1	1.4293	Adder	1.68
937011	AD2-135 C	0.0769	50/50	0.0769
937012	AD2-135 E	0.1307	50/50	0.1307
938421	AE1-061 C	0.1645	Adder	0.19
938422	AE1-061 E	0.1645	Adder	0.19
938431	AE1-062 C	1.1100	50/50	1.1100
938651	AE1-087 C	0.8208	Adder	0.97
938652	AE1-087 E	0.2052	Adder	0.24
938781	AE1-104 C O1	9.2410	Adder	10.87
938782	AE1-104 E O1	23.6396	Adder	27.81
938895	AE1-117 C	2.5700	Adder	3.02
938896	AE1-117 E	6.8533	Adder	8.06
939151	AE1-145	1.0576	Adder	1.24
939301	AE1-161 C	1.1426	Adder	1.34
939302	AE1-161 E	1.7139	Adder	2.02
939501	AE1-179 C O1	1.8677	Adder	2.2
939502	AE1-179 E O1	1.3181	Adder	1.55
939821	AE1-218 C O1	0.0531	Adder	0.06
939822	AE1-218 E O1	0.0796	Adder	0.09
940001	AE1-240 C O1	1.5281	Adder	1.8
940002	AE1-240 E O1	1.0907	Adder	1.28
940361	AE2-020 C	7.9889	Adder	9.4
940362	AE2-020 E	37.4044	Adder	44.01
940371	AE2-021 C	7.9889	Adder	9.4
940372	AE2-021 E	37.4044	Adder	44.01
940381	AE2-022 C	4.6602	Adder	5.48
940382	AE2-022 E	21.8192	Adder	25.67
941021	AE2-093 C	0.8293	Adder	0.98
941022	AE2-093 E	1.3530	Adder	1.59
941181	AE2-112 C	0.3039	Adder	0.36
941182	AE2-112 E	0.4959	Adder	0.58
942101	AE2-222 C	5.8685	Adder	6.9
942102	AE2-222 E	15.0160	Adder	17.67
942381	AE2-251 C	25.3085	Adder	29.77
942382	AE2-251 E	64.7575	Adder	76.19
942441	AE2-257 C	1.7674	Adder	2.08
942442	AE2-257 E	4.6596	Adder	5.48
943071	AE2-334 C	1.7384	Adder	2.05
943072	AE2-334 E	1.1590	Adder	1.36
943361	AF1-007 C	0.1019	Adder	0.12
943362	AF1-007 E	0.2897	Adder	0.34
943441	AF1-015 C	0.3125	Adder	0.37
943442	AF1-015 E	0.4315	Adder	0.51

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943651	AF1-036 C	0.3952	Adder	0.46
943652	AF1-036 E	0.5458	Adder	0.64
943732	AF1-041 E	0.1679	Adder	0.2
944951	AF1-160 C	1.1100	50/50	1.1100
945661	AF1-231 C	0.4017	Adder	0.47
945662	AF1-231 E	0.6026	Adder	0.71
945731	AF1-238 C O1	2.9378	Adder	3.46
945732	AF1-238 E O1	4.4067	Adder	5.18
945741	AF1-239 C	0.6913	Adder	0.81
945742	AF1-239 E	1.0369	Adder	1.22
945791	AF1-244	0.4217	Adder	0.5
945931	AF1-258	0.1682	Adder	0.2
945941	AF1-259	0.0380	Adder	0.04
945971	AF1-262	0.0418	Adder	0.05
945991	AF1-264	0.1419	50/50	0.1419
957221	AF2-016 C	8.3752	Adder	9.85
957222	AF2-016 E	12.5628	Adder	14.78
957251	AF2-019 C	0.5087	Adder	0.6
957252	AF2-019 E	0.7631	Adder	0.9
957261	AF2-020 C	0.3543	Adder	0.42
957262	AF2-020 E	0.5315	Adder	0.63
957271	AF2-021 C	0.3974	Adder	0.47
957272	AF2-021 E	0.5961	Adder	0.7
957311	AF2-025 C	0.5569	Adder	0.66
957312	AF2-025 E	0.8354	Adder	0.98
957611	AF2-055 C	1.8504	Adder	2.18
957612	AF2-055 E	0.7931	Adder	0.93
957661	AF2-060	0.4759	Adder	0.56
957671	AF2-061 O1	2.1151	Adder	2.49
958811	AF2-172 C (Withdrawn : 01/14/2021)	0.1877	Adder	0.22
958812	AF2-172 E (Withdrawn : 01/14/2021)	0.3062	Adder	0.36
958831	AF2-174 C	0.0736	Adder	0.09
958832	AF2-174 E	0.1016	Adder	0.12
959021	AF2-193 C	6.3846	Adder	7.51
959022	AF2-193 E	17.2223	Adder	20.26
959031	AF2-194 C	6.3846	Adder	7.51
959032	AF2-194 E	17.2223	Adder	20.26
959051	AF2-196 C	0.4820	Adder	0.57
959052	AF2-196 E	1.1247	Adder	1.32
959161	AF2-207 C O1	1.0643	Adder	1.25
959162	AF2-207 E O1	1.5965	Adder	1.88
959571	AF2-248 C	0.1794	Adder	0.21
959572	AF2-248 E	0.2005	Adder	0.24
959581	AF2-249 C	0.0317	Adder	0.04
959582	AF2-249 E	0.1266	Adder	0.15
959591	AF2-250 C	0.0580	Adder	0.07
959592	AF2-250 E	0.0449	Adder	0.05
960221	AF2-313 C	0.6028	Adder	0.71
960222	AF2-313 E	0.3417	Adder	0.4
960341	AF2-325 C	0.2162	Adder	0.25
960342	AF2-325 E	0.2986	Adder	0.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960671	AF2-358 C O1	3.1125	Adder	3.66
960672	AF2-358 E O1	2.0750	Adder	2.44
960871	AF2-378 C	0.0572	Adder	0.07
960872	AF2-378 E	0.0794	Adder	0.09
960881	AF2-379 C	0.0864	Adder	0.1
960882	AF2-379 E	0.1190	Adder	0.14
960941	AF2-385 C	2.5235	Adder	2.97
960942	AF2-385 E	1.4360	Adder	1.69
960961	AF2-387 C O1	3.2698	Adder	3.85
960962	AF2-387 E O1	1.6398	Adder	1.93
961181	AF2-409 O1	5.1893	Adder	6.11
961621	AG1-001 C	0.3164	Adder	0.7
961622	AG1-001 E	0.5163	Adder	1.15
962161	AG1-061 C O2	1.8199	Adder	4.04
962162	AG1-061 E O2	1.2133	Adder	2.69
962261	AG1-072	1.3010	Adder	2.89
962302	AG1-079 E	0.0402	Adder	0.09
962381	AG1-087 C O2	3.3929	Adder	7.53
962382	AG1-087 E O2	9.1524	Adder	20.32
962611	AG1-110	2.2200	50/50	2.2200
962801	AG1-129 C O2	0.9671	Adder	2.15
962802	AG1-129 E O2	0.6447	Adder	1.43
963001	AG1-149	0.0838	Adder	0.19
963011	AG1-150	1.1210	Adder	2.49
964083	AG1-263 BAT	2.4812	50/50	2.4812
964371	AG1-299 C	0.0568	Adder	0.13
964372	AG1-299 E	0.0379	Adder	0.08
964381	AG1-300 C	0.0947	Adder	0.21
964382	AG1-300 E	0.0632	Adder	0.14
964551	AG1-318 C	0.0085	Adder	0.02
964552	AG1-318 E	0.0199	Adder	0.04
964962	AG1-360 E	0.2446	Adder	0.54
965321	AG1-397 C	0.1175	Adder	0.26
965322	AG1-397 E	0.1621	Adder	0.36
965611	AG1-429 C O2	0.9880	Adder	2.19
965612	AG1-429 E O2	0.6585	Adder	1.46
965821	AG1-450	0.6867	Adder	1.52
965921	AG1-461 C O2	0.5497	Adder	1.22
965922	AG1-461 E O2	0.2960	Adder	0.66
965951	AG1-464 C O2	0.5689	Adder	1.26
965952	AG1-464 E O2	0.8533	Adder	1.89
966281	AG1-497 C O2	2.5207	Adder	5.6
966282	AG1-497 E O2	1.0803	Adder	2.4
966601	AG1-529 C	1.4020	Adder	3.11
966602	AG1-529 E	0.7483	Adder	1.66
G-007A	G-007A	3.9918	Confirmed LTF	3.9918
VFT	VFT	6.1469	Confirmed LTF	6.1469
CALDERWOOD	CALDERWOOD	0.1834	Confirmed LTF	0.1834
PRAIRIE	PRAIRIE	0.9350	Confirmed LTF	0.9350
CHEOAH	CHEOAH	0.1847	Confirmed LTF	0.1847
CBM-N	CBM-N	0.8976	Confirmed LTF	0.8976
COTTONWOOD	COTTONWOOD	0.7686	Confirmed LTF	0.7686

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
HAMLET	HAMLET	0.2189	Confirmed LTF	0.2189
GIBSON	GIBSON	0.1966	Confirmed LTF	0.1966
BLUEG	BLUEG	0.6250	Confirmed LTF	0.6250
TRIMBLE	TRIMBLE	0.2003	Confirmed LTF	0.2003
CATAWBA	CATAWBA	0.1316	Confirmed LTF	0.1316

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168024755	231000	CLAY_230	DP&L	214235	LINWOOD84	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	118.79	119.35	DC	11.41

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

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

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

14.5.10 Index 10

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168024786	231001	EDGE MR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	117.48	117.98	DC	10.15

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

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

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

14.5.11 Index 11

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
175325800	231001	EDGE MR 5	DP&L	214236	LINWOOD85	PECO	1	DPL_P1_2_CKT 23015	single	804.0	116.71	117.2	DC	10.13

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

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

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

14.5.12 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
174327018	231002	HARMONY	DP&L	231001	EDGEMR 5	DP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	924.0	118.53	119.75	DC	25.3

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165434076	231003	KEEN_230	DP&L	231002	HARMONY	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	108.1	108.8	DC	12.49

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

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

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

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

14.5.14 Index 14

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174327039	232000	STEELE	DP&L	923960	AB2-037 TAP	DP&L	2	DPL_P4-2_DP8	breaker	727.0	114.45	115.61	DC	18.87

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

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

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

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

14.5.15 Index 15

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174326796	232002	CEDAR CK	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP11	breaker	678.0	193.8	195.51	DC	29.06

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

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

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

14.5.16 Index 16

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
165146204	232012	HOPE CREEK	PJM	200029	HOPE CRK	PSE&G	1	DPL_P7_1_DBL_4NC	tower	1117.0	138.62	145.04	DC	72.32

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174326920	232013	SILVER RUN	PJM	231004	RL_230	DP&L	1	DPL_P4-2_DP11	breaker	678.0	131.0	136.47	DC	37.03

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174327021	232013	SILVER RUN	PJM	231004	RL_230	DP&L	2	DPL_P4-2_DP11	breaker	790.0	112.86	117.56	DC	37.08

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
166842299	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	198.4	199.97	DC	12.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	2.1162	Adder	2.49
232407	W1-004 E	2.1162	Adder	2.49
232409	W1-005 E	2.1162	Adder	2.49
232411	W1-006 E	2.1162	Adder	2.49
232412	X1-032 E	0.6923	Adder	0.81
232417	X3-008 C	0.3001	50/50	0.3001
232418	X3-008 E	3.1031	50/50	3.1031
232422	X3-066 C	0.1518	50/50	0.1518
232423	X3-066 E	1.2321	50/50	1.2321
232424	Y1-079 C	0.2221	50/50	0.2221
232425	Y1-079 E	2.2972	50/50	2.2972
232426	Y1-080 FULL	0.0468	50/50	0.0468
232427	Y1-080 E	0.4865	50/50	0.4865
232428	Y3-058 C	0.1887	50/50	0.1887
232429	Y3-058 E	1.2800	50/50	1.2800
232433	Z2-076 E	0.3195	Adder	0.38
232435	Z2-077 E	0.3195	Adder	0.38
232813	VAUGHN	0.1051	50/50	0.1051
232851	DUP-SFR1	1.6269	Adder	1.91
232902	EASTMUNI	3.3846	50/50	3.3846
232907	VN8	5.4177	50/50	5.4177
232910	NRG_G1	1.6595	50/50	1.6595
232911	NRG_G2	1.6595	50/50	1.6595
232919	VN10	0.4103	50/50	0.4103
232922	MR3 (Deactivation : 01/06/2021)	9.0454	Adder	10.64
232926	CRISFLD1	0.3223	50/50	0.3223
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2813	Adder	0.33
233915	AB1-141 C	0.9820	50/50	0.9820
233916	AB1-141 E	2.9046	50/50	2.9046
233918	AB1-142 C	0.9820	50/50	0.9820
233919	AB1-142 E	2.9046	50/50	2.9046
233923	AA1-102 C	1.8373	50/50	1.8373
233931	AB2-179 C	-9.2465	Adder	-10.88
293670	O-025 C	0.1942	50/50	0.1942
917082	CHERRYDALE E	2.1143	Adder	2.49
918835	AA1-102 E	19.0008	50/50	19.0008
919831	AA2-069 (Suspended)	39.9949	Adder	47.05
923921	AB2-032 C	6.2703	50/50	6.2703
923922	AB2-032 E	2.9507	50/50	2.9507
923951	AB2-036 C	12.6635	50/50	12.6635
923952	AB2-036 E	20.7187	50/50	20.7187

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924681	AB2-120 C	6.4703	Adder	7.61
924682	AB2-120 E	10.5569	Adder	12.42
924781	AB2-130 C O1	5.4550	Adder	6.42
924782	AB2-130 E O1	8.9003	Adder	10.47
924801	AB2-133 C O1	11.5421	50/50	11.5421
924802	AB2-133 E O1	14.6387	50/50	14.6387
924821	AB2-135 C	12.2976	50/50	12.2976
924822	AB2-135 E	14.0250	50/50	14.0250
924831	AB2-136 C	5.9562	50/50	5.9562
924832	AB2-136 E	6.3165	50/50	6.3165
924971	AB2-153 C	3.5040	50/50	3.5040
924972	AB2-153 E	5.7170	50/50	5.7170
925151	AB2-172 C	4.7548	50/50	4.7548
925152	AB2-172 E	7.7578	50/50	7.7578
925261	AB2-180 C	2.9378	50/50	2.9378
925262	AB2-180 E	1.2590	50/50	1.2590
925271	AB2-185 C	5.1871	50/50	5.1871
925272	AB2-185 E	2.2231	50/50	2.2231
926131	AC1-091 C	0.6418	Adder	0.76
926132	AC1-091 E	1.0526	Adder	1.24
926141	AC1-092 C	0.6418	Adder	0.76
926142	AC1-092 E	1.0526	Adder	1.24
926151	AC1-093 C	0.6076	Adder	0.71
926152	AC1-093 E	1.0013	Adder	1.18
926161	AC1-094 C	0.5135	Adder	0.6
926162	AC1-094 E	0.8472	Adder	1.0
927031	AC1-190 C	8.6961	50/50	8.6961
927032	AC1-190 E	3.7269	50/50	3.7269
927191	AC1-213 C	0.6564	50/50	0.6564
927192	AC1-213 E	0.4308	50/50	0.4308
930201	AB1-056 C	9.8959	Adder	11.64
930202	AB1-056 E	28.1818	Adder	33.16
931261	AB1-176 C	0.6372	50/50	0.6372
931262	AB1-176 E	1.0507	50/50	1.0507
932161	AC2-023 C	5.6437	50/50	5.6437
932162	AC2-023 E	4.1103	50/50	4.1103
933631	AC2-185 C	1.3008	Adder	1.53
933632	AC2-185 E	2.1223	Adder	2.5
933641	AC2-186 C	3.1389	Adder	3.69
933642	AC2-186 E	5.1214	Adder	6.03
936611	AD2-076 C O1	8.1710	50/50	8.1710
936612	AD2-076 E O1	13.3317	50/50	13.3317
938651	AE1-087 C	4.0040	50/50	4.0040
938652	AE1-087 E	1.0010	50/50	1.0010
938895	AE1-117 C	7.5027	Adder	8.83
938896	AE1-117 E	20.0072	Adder	23.54
939151	AE1-145	3.4061	Adder	4.01
941021	AE2-093 C	5.0565	50/50	5.0565
941022	AE2-093 E	8.2500	50/50	8.2500
941181	AE2-112 C	2.8348	50/50	2.8348
941182	AE2-112 E	4.6253	50/50	4.6253
942441	AE2-257 C	5.1449	Adder	6.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942442	AE2-257 E	13.5639	Adder	15.96
943361	AF1-007 C	0.2920	Adder	0.34
943362	AF1-007 E	0.8298	Adder	0.98
943441	AF1-015 C	1.9052	50/50	1.9052
943442	AF1-015 E	2.6311	50/50	2.6311
943651	AF1-036 C	3.6862	50/50	3.6862
943652	AF1-036 E	5.0904	50/50	5.0904
945661	AF1-231 C	1.2961	Adder	1.52
945662	AF1-231 E	1.9442	Adder	2.29
945791	AF1-244	1.6345	50/50	1.6345
945931	AF1-258	0.6715	50/50	0.6715
945941	AF1-259	0.3376	50/50	0.3376
957611	AF2-055 C	5.9678	Adder	7.02
957612	AF2-055 E	2.5577	Adder	3.01
957661	AF2-060	1.5328	Adder	1.8
957671	AF2-061 O1	6.8122	Adder	8.01
959021	AF2-193 C	18.2859	Adder	21.51
959022	AF2-193 E	49.3258	Adder	58.03
959031	AF2-194 C	18.2859	Adder	21.51
959032	AF2-194 E	49.3258	Adder	58.03
959051	AF2-196 C	1.4032	Adder	1.65
959052	AF2-196 E	3.2740	Adder	3.85
959161	AF2-207 C O1	3.4920	Adder	4.11
959162	AF2-207 E O1	6.1623	50/50	6.1623
959571	AF2-248 C	0.6946	50/50	0.6946
959572	AF2-248 E	0.7763	50/50	0.7763
959581	AF2-249 C	0.1226	50/50	0.1226
959582	AF2-249 E	0.4903	50/50	0.4903
959591	AF2-250 C	0.2247	50/50	0.2247
959592	AF2-250 E	0.1736	50/50	0.1736
960221	AF2-313 C	5.3589	50/50	5.3589
960222	AF2-313 E	3.0381	50/50	3.0381
960341	AF2-325 C	1.0239	50/50	1.0239
960342	AF2-325 E	1.4139	50/50	1.4139
960671	AF2-358 C O1	13.8072	50/50	13.8072
960672	AF2-358 E O1	9.2048	50/50	9.2048
960871	AF2-378 C	0.2684	50/50	0.2684
960872	AF2-378 E	0.3724	50/50	0.3724
960881	AF2-379 C	0.3375	50/50	0.3375
960882	AF2-379 E	0.4650	50/50	0.4650
960941	AF2-385 C	9.7407	50/50	9.7407
960942	AF2-385 E	5.5428	50/50	5.5428
960961	AF2-387 C O1	21.7542	50/50	21.7542
960962	AF2-387 E O1	10.9098	50/50	10.9098
961181	AF2-409 O1	22.4440	50/50	22.4440
962161	AG1-061 C O2	13.9771	50/50	13.9771
962162	AG1-061 E O2	9.3180	50/50	9.3180
962261	AG1-072	16.3320	50/50	16.3320
962302	AG1-079 E	0.4867	50/50	0.4867
962381	AG1-087 C O2	9.4299	Adder	20.93
962382	AG1-087 E O2	25.4370	Adder	56.46
963001	AG1-149	0.6129	50/50	0.6129

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
166842309	232106	MIDLTNTP	DP&L	232104	MT PLSNT	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	178.68	180.24	DC	12.52

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

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

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

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

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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
166842294	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A	tower	348.0	204.14	205.7	DC	12.52

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174326959	232112	FELTON	DP&L	232110	CHESWOLD	DP&L	1	DPL_P4-2_DP11	breaker	242.0	121.54	122.79	DC	6.79

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
174326930	232114	SHARNGTN	DP&L	232112	FELTON	DP&L	1	DPL_P4-2_DP11	breaker	242.0	130.26	131.51	DC	6.79

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
166842454	923950	AB2-036 TAP	DP&L	232100	CHURCH	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	100.12	100.96	DC	6.53

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	0.2275	50/50	0.2275
232405	W1-003 E	1.3386	50/50	1.3386
232406	W1-004 C	0.2275	50/50	0.2275
232407	W1-004 E	1.3386	50/50	1.3386
232408	W1-005 C	0.2275	50/50	0.2275
232409	W1-005 E	1.3386	50/50	1.3386
232410	W1-006 C	0.2275	50/50	0.2275
232411	W1-006 E	1.3386	50/50	1.3386
232412	X1-032 E	0.4400	50/50	0.4400
232417	X3-008 C	0.1430	50/50	0.1430
232418	X3-008 E	1.4789	50/50	1.4789
232426	Y1-080 FULL	0.0238	50/50	0.0238
232427	Y1-080 E	0.2472	50/50	0.2472
232428	Y3-058 C	0.0989	50/50	0.0989
232429	Y3-058 E	0.6707	50/50	0.6707
232433	Z2-076 E	0.1662	Adder	0.2
232435	Z2-077 E	0.1662	Adder	0.2
232851	DUP-SFR1	0.7289	Adder	0.86
232902	EASTMUNI	1.3537	50/50	1.3537
232907	VN8	3.0383	50/50	3.0383
232915	OH NUG4	0.6164	50/50	0.6164
232916	OH NUG5	0.6164	50/50	0.6164
232919	VN10	0.2129	50/50	0.2129
232922	MR3 (Deactivation : 01/06/2021)	4.7199	Adder	5.55
232926	CRISFLD1	0.1743	50/50	0.1743
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.1460	Adder	0.17
233923	AA1-102 C	0.9936	50/50	0.9936
233931	AB2-179 C	-4.1874	Adder	-4.93
917082	CHERRYDALE E	1.1363	Adder	1.34
918835	AA1-102 E	10.2756	50/50	10.2756
919831	AA2-069 (Suspended)	20.8696	Adder	24.55
923921	AB2-032 C	-1.7295	Adder	-2.03
923951	AB2-036 C	13.2868	50/50	13.2868
923952	AB2-036 E	21.7385	50/50	21.7385
924681	AB2-120 C	3.4768	Adder	4.09
924682	AB2-120 E	5.6726	Adder	6.67
924781	AB2-130 C O1	2.6653	Adder	3.14
924782	AB2-130 E O1	4.3487	Adder	5.12
924831	AB2-136 C	2.9368	50/50	2.9368
924832	AB2-136 E	3.1144	50/50	3.1144

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924971	AB2-153 C	-0.9665	Adder	-1.14
925151	AB2-172 C	2.2661	50/50	2.2661
925152	AB2-172 E	3.6974	50/50	3.6974
925261	AB2-180 C	1.5393	50/50	1.5393
925262	AB2-180 E	0.6597	50/50	0.6597
927031	AC1-190 C	4.1692	50/50	4.1692
927032	AC1-190 E	1.7868	50/50	1.7868
927191	AC1-213 C	0.2933	Adder	0.35
927192	AC1-213 E	0.1925	Adder	0.23
930201	AB1-056 C	5.1899	Adder	6.11
930202	AB1-056 E	14.7799	Adder	17.39
932161	AC2-023 C	2.9513	50/50	2.9513
932162	AC2-023 E	2.1494	50/50	2.1494
938651	AE1-087 C	1.9083	50/50	1.9083
938652	AE1-087 E	0.4771	50/50	0.4771
938895	AE1-117 C	3.8960	Adder	4.58
938896	AE1-117 E	10.3893	Adder	12.22
939151	AE1-145	1.8295	Adder	2.15
941021	AE2-093 C	2.7835	50/50	2.7835
941022	AE2-093 E	4.5416	50/50	4.5416
942441	AE2-257 C	2.6726	Adder	3.14
942442	AE2-257 E	7.0460	Adder	8.29
943361	AF1-007 C	0.1531	Adder	0.18
943362	AF1-007 E	0.4352	Adder	0.51
943441	AF1-015 C	1.0488	50/50	1.0488
943442	AF1-015 E	1.4484	50/50	1.4484
945661	AF1-231 C	0.6968	Adder	0.82
945662	AF1-231 E	1.0452	Adder	1.23
945791	AF1-244	0.8839	50/50	0.8839
945931	AF1-258	0.3518	50/50	0.3518
945941	AF1-259	-0.0596	Adder	-0.07
957611	AF2-055 C	3.2073	Adder	3.77
957612	AF2-055 E	1.3746	Adder	1.62
957661	AF2-060	0.8233	Adder	0.97
957671	AF2-061 O1	3.6591	Adder	4.3
959021	AF2-193 C	9.5900	Adder	11.28
959022	AF2-193 E	25.8689	Adder	30.43
959031	AF2-194 C	9.5900	Adder	11.28
959032	AF2-194 E	25.8689	Adder	30.43
959051	AF2-196 C	0.7289	Adder	0.86
959052	AF2-196 E	1.7007	Adder	2.0
959161	AF2-207 C O1	1.8094	Adder	2.13
959162	AF2-207 E O1	2.7141	Adder	3.19
959571	AF2-248 C	0.3076	Adder	0.36
959572	AF2-248 E	0.3437	Adder	0.4
959581	AF2-249 C	0.0543	Adder	0.06
959582	AF2-249 E	0.2171	Adder	0.26
959591	AF2-250 C	0.0995	Adder	0.12
959592	AF2-250 E	0.0769	Adder	0.09
960341	AF2-325 C	0.4986	50/50	0.4986
960342	AF2-325 E	0.6886	50/50	0.6886
960671	AF2-358 C O1	7.0548	50/50	7.0548

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960672	AF2-358 E O1	4.7032	50/50	4.7032
960871	AF2-378 C	0.1316	50/50	0.1316
960872	AF2-378 E	0.1826	50/50	0.1826
960881	AF2-379 C	0.1812	50/50	0.1812
960882	AF2-379 E	0.2497	50/50	0.2497
960941	AF2-385 C	4.2901	Adder	5.05
960942	AF2-385 E	2.4412	Adder	2.87
960961	AF2-387 C O1	8.5408	50/50	8.5408
960962	AF2-387 E O1	4.2832	50/50	4.2832
961181	AF2-409 O1	12.5870	50/50	12.5870
962161	AG1-061 C O2	7.6565	50/50	7.6565
962162	AG1-061 E O2	5.1043	50/50	5.1043
962261	AG1-072	6.4120	50/50	6.4120
962381	AG1-087 C O2	5.1117	Adder	11.35
962382	AG1-087 E O2	13.7886	Adder	30.61
963001	AG1-149	0.3315	50/50	0.3315
963011	AG1-150	1.9393	Adder	4.3
964551	AG1-318 C	0.0129	Adder	0.03
964552	AG1-318 E	0.0302	Adder	0.07
964962	AG1-360 E	0.9624	50/50	0.9624
965321	AG1-397 C	0.1980	Adder	0.44
965322	AG1-397 E	0.2731	Adder	0.61
965611	AG1-429 C O2	1.7125	Adder	3.8
965612	AG1-429 E O2	1.1414	Adder	2.53
965821	AG1-450	2.9428	50/50	2.9428
965921	AG1-461 C O2	0.8471	Adder	1.88
965922	AG1-461 E O2	0.4561	Adder	1.01
966281	AG1-497 C O2	2.0601	Adder	4.57
966282	AG1-497 E O2	0.8829	Adder	1.96
966601	AG1-529 C	1.6685	Adder	3.7
966602	AG1-529 E	0.8906	Adder	1.98
CALDERWOOD	CALDERWOOD	0.0403	Confirmed LTF	0.0403
NY	NY	0.0249	Confirmed LTF	0.0249
PRAIRIE	PRAIRIE	0.2092	Confirmed LTF	0.2092
O-066	O-066	0.1817	Confirmed LTF	0.1817
CHEOAH	CHEOAH	0.0405	Confirmed LTF	0.0405
COTTONWOOD	COTTONWOOD	0.1701	Confirmed LTF	0.1701
G-007	G-007	0.0137	Confirmed LTF	0.0137
HAMLET	HAMLET	0.0474	Confirmed LTF	0.0474
GIBSON	GIBSON	0.0437	Confirmed LTF	0.0437
BLUEG	BLUEG	0.1389	Confirmed LTF	0.1389
TRIMBLE	TRIMBLE	0.0445	Confirmed LTF	0.0445
CATAWBA	CATAWBA	0.0287	Confirmed LTF	0.0287

14.5.25 Index 25

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174326953	923960	AB2-037 TAP	DP&L	231003	KEEN_230	DP&L	2	DPL_P4-2_DP8	breaker	727.0	128.19	129.35	DC	18.87

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

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

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

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

14.5.26 Index 26

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174116035	962380	AG1-087 TAP	DP&L	232004	MILF_230	DP&L	1	DPL_P4-2_DP12	breaker	550.0	116.09	117.28	DC	6.55

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232422	X3-066 C	0.0517	50/50	0.0517
232423	X3-066 E	0.4194	50/50	0.4194
232424	Y1-079 C	0.1093	50/50	0.1093
232425	Y1-079 E	1.1306	50/50	1.1306
232851	DUP-SFR1	-2.4547	Adder	-2.89
232902	EASTMUNI	1.6271	50/50	1.6271
233915	AB1-141 C	0.3121	50/50	0.3121
233916	AB1-141 E	0.9231	50/50	0.9231
233918	AB1-142 C	0.3121	50/50	0.3121
233919	AB1-142 E	0.9231	50/50	0.9231
923921	AB2-032 C	1.9928	50/50	1.9928
923922	AB2-032 E	0.9378	50/50	0.9378
923951	AB2-036 C	7.3684	50/50	7.3684
923952	AB2-036 E	12.0555	50/50	12.0555
923961	AB2-037 C	20.0041	50/50	20.0041
923962	AB2-037 E	32.6795	50/50	32.6795
924801	AB2-133 C O1	2.6588	50/50	2.6588
924802	AB2-133 E O1	3.3721	50/50	3.3721
924971	AB2-153 C	1.1136	50/50	1.1136
924972	AB2-153 E	1.8170	50/50	1.8170
925271	AB2-185 C	2.5529	50/50	2.5529
925272	AB2-185 E	1.0941	50/50	1.0941
930201	AB1-056 C	-18.5547	Adder	-21.83
931261	AB1-176 C	0.2169	50/50	0.2169
931262	AB1-176 E	0.3576	50/50	0.3576
936611	AD2-076 C O1	2.9297	50/50	2.9297
936612	AD2-076 E O1	4.7800	50/50	4.7800
938653	AE1-087 BAT	2.5612	50/50	2.5612
939152	AE1-145 BAT	6.2238	50/50	6.2238
941021	AE2-093 C	3.5558	50/50	3.5558
941022	AE2-093 E	5.8016	50/50	5.8016
941181	AE2-112 C	1.0164	50/50	1.0164
941182	AE2-112 E	1.6584	50/50	1.6584
943441	AF1-015 C	1.3398	50/50	1.3398
943442	AF1-015 E	1.8502	50/50	1.8502
943651	AF1-036 C	1.3217	50/50	1.3217
943652	AF1-036 E	1.8251	50/50	1.8251
945663	AF1-231 BAT	5.9090	50/50	5.9090
945792	AF1-244 BAT	2.4532	50/50	2.4532
945941	AF1-259	0.1149	50/50	0.1149
957613	AF2-055 BAT	9.3294	50/50	9.3294
957662	AF2-060 BAT	2.8007	50/50	2.8007

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957672	AF2-061 BAT	12.4476	50/50	12.4476
959163	AF2-207 BAT	14.8463	50/50	14.8463
959583	AF2-249 BAT	0.8828	50/50	0.8828
960221	AF2-313 C	1.8241	50/50	1.8241
960222	AF2-313 E	1.0341	50/50	1.0341
960881	AF2-379 C	-0.4196	Adder	-0.49
960961	AF2-387 C O1	15.1195	50/50	15.1195
960962	AF2-387 E O1	7.5825	50/50	7.5825
961182	AF2-409 BAT	28.6170	50/50	28.6170
962261	AG1-072	11.3510	50/50	11.3510
962381	AG1-087 C O2	73.2338	50/50	73.2338
962382	AG1-087 E O2	197.5466	50/50	197.5466
963002	AG1-149 BAT	0.9200	50/50	0.9200
963012	AG1-150 BAT	12.4476	50/50	12.4476
964553	AG1-318 BAT	0.3306	50/50	0.3306
965822	AG1-450 BAT	5.3238	50/50	5.3238
965953	AG1-464 BAT	12.1215	50/50	12.1215
966283	AG1-497 BAT	6.5484	50/50	6.5484
WEC	WEC	0.0866	Confirmed LTF	0.0866
LGEE	LGEE	0.1728	Confirmed LTF	0.1728
CPL	CPL	0.1925	Confirmed LTF	0.1925
VFT	VFT	0.1677	Confirmed LTF	0.1677
CBM-W2	CBM-W2	2.4730	Confirmed LTF	2.4730
TVA	TVA	0.3878	Confirmed LTF	0.3878
SIGE	SIGE	0.0248	Confirmed LTF	0.0248
CBM-S2	CBM-S2	2.9232	Confirmed LTF	2.9232
CBM-S1	CBM-S1	0.1049	Confirmed LTF	0.1049
CBM-N	CBM-N	0.0792	Confirmed LTF	0.0792
G-007	G-007	0.0137	Confirmed LTF	0.0137
MEC	MEC	0.4370	Confirmed LTF	0.4370
LAGN	LAGN	0.4847	Confirmed LTF	0.4847
CBM-W1	CBM-W1	3.8415	Confirmed LTF	3.8415

14.5.27 Index 27

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174740630	966280	AG1-497 TAP	DP&L	232003	CARTANZA	DP&L	1	Base Case	single	350.0	217.2	241.16	DC	83.86

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
233920	W3-032A-CTG1	30.3999	80/20	30.3999
233921	W3-032A-STG1	18.3029	80/20	18.3029
919831	AA2-069 (Suspended)	450.2649	80/20	450.2649
966281	AG1-497 C O2	83.8631	80/20	83.8631
CALDERWOOD	CALDERWOOD	0.0810	Confirmed LTF	0.0810
NY	NY	0.0901	Confirmed LTF	0.0901
PRAIRIE	PRAIRIE	0.4210	Confirmed LTF	0.4210
CHEOAH	CHEOAH	0.0816	Confirmed LTF	0.0816
COTTONWOOD	COTTONWOOD	0.3423	Confirmed LTF	0.3423
HAMLET	HAMLET	0.0941	Confirmed LTF	0.0941
GIBSON	GIBSON	0.0890	Confirmed LTF	0.0890
BLUEG	BLUEG	0.2830	Confirmed LTF	0.2830
TRIMBLE	TRIMBLE	0.0907	Confirmed LTF	0.0907
CATAWBA	CATAWBA	0.0570	Confirmed LTF	0.0570

14.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
TS_P1-2_#T6	CONTINGENCY 'TS_P1-2_#T6' / 1771 OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 END
DPL_P4-2_DP8	CONTINGENCY 'DPL_P4-2_DP8' / 1736 OPEN BRANCH FROM BUS 231003 TO BUS 232000 CKT 1 / 231003 KEEN_230 230 232000 STEELE 230 1 OPEN BRANCH FROM BUS 232103 TO BUS 232000 CKT 1 / 232103 STEEL138 138 232000 STEELE 230 1 END
PJM500_PS_P1-2_5015	CONTINGENCY 'PJM500_PS_P1-2_5015' / 1465 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 END
DPL_P7_1_DBL_3NC	CONTINGENCY 'DPL_P7_1_DBL_3NC' /* HARMNY-KEENY 230;KEENY-CHRYSLR 230 OPEN LINE FROM BUS 231002 TO BUS 231003 CKT 1 OPEN LINE FROM BUS 231123 TO BUS 231115 CKT 1 END
PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	CONTINGENCY 'PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L' / 1413 OPEN BRANCH FROM BUS 213489 TO BUS 213627 CKT 1 / 213489 CHICHST1 230 213627 FOULK8 230 1 OPEN BRANCH FROM BUS 213624 TO BUS 213627 CKT Z / 213624 FOULK 230 213627 FOULK8 230 Z OPEN BRANCH FROM BUS 213626 TO BUS 213627 CKT 2 / 213626 FOULK 2 13.8 213627 FOULK8 230 2 END
JC-P1-2-JCC-500-003	CONTINGENCY 'JC-P1-2-JCC-500-003' / 1231 OPEN BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 / 200012 NEWFRDM 500 200028 WINDSOR 500 1 END
DPL_P1_1_IR4 GEN	CONTINGENCY 'DPL_P1_1_IR4 GEN' / 741 OPEN BRANCH FROM BUS 232904 TO BUS 232006 CKT 1 / 232904 IR4 26.0 232006 INDRIV 4 230 1 END

Contingency Name	Contingency Definition
PJM500_PS_P1-2_HOPE-SILVER	CONTINGENCY 'PJM500_PS_P1-2_HOPE-SILVER' / 1565 OPEN BRANCH FROM BUS 232012 TO BUS 232014 CKT 1 / 232012 HOPE CREEK 230 232014 LSPWR CABLE 230 1 OPEN BRANCH FROM BUS 232012 TO BUS 232014 CKT 2 / 232012 HOPE CREEK 230 232014 LSPWR CABLE 230 2 OPEN BRANCH FROM BUS 200029 TO BUS 232012 CKT 1 / 200029 HOPE CRK 500 232012 HOPE CREEK 230 1 OPEN BRANCH FROM BUS 232013 TO BUS 232014 CKT 1 / 232013 SILVER RUN 230 232014 LSPWR CABLE 230 1 END
TS_P4_#T7_FUR RUN 500_CB 3	CONTINGENCY 'TS_P4_#T7_FUR RUN 500_CB 3' / 1843 OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 OPEN BRANCH FROM BUS 200016 TO BUS 270072 CKT 1 / 200016 3 MILE I 500 270072 FUR RUN_500 500 1 END
DPL_P4-2_DP12	CONTINGENCY 'DPL_P4-2_DP12' / 545 OPEN BRANCH FROM BUS 232103 TO BUS 232000 CKT 2 / 232103 STEEL138 138 232000 STEELE 230 2 OPEN BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 / 232000 STEELE 230 232005 VIENNA 230 1 END
DPL_P4-2_DP11	CONTINGENCY 'DPL_P4-2_DP11' / 913 OPEN BRANCH FROM BUS 232000 TO BUS 962380 CKT 1 / 232000 STEELE 230 962380 AG1-087 TAP 230 1 OPEN BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 / 232000 STEELE 230 232005 VIENNA 230 1 END
PJM_500_BG_P4_5_CNSTN_B	CONTINGENCY 'PJM_500_BG_P4_5_CNSTN_B' / 1860 OPEN BRANCH FROM BUS 200004 TO BUS 220963 CKT 2 / 200004 CNASTONE 500 220963 CONASTON 230 2 OPEN BRANCH FROM BUS 200004 TO BUS 200064 CKT 1 / 200004 CNASTONE 500 200064 PCHBTM1S 500 1 END
DPL_P7_1_DBL_4NC	CONTINGENCY 'DPL_P7_1_DBL_4NC' /* RED LION-SILVER RUN 230;RED LION-SILVER RUN 230 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 1 OPEN LINE FROM BUS 231004 TO BUS 232013 CKT 2 END
DPL_P1_2_AB2-037 KEENEY	CONTINGENCY 'DPL_P1_2_AB2-037 KEENEY' / 1341 OPEN BRANCH FROM BUS 231003 TO BUS 923960 CKT 2 / 231003 KEEN_230 230 923960 AB2-037 TAP 230 2 END

Contingency Name	Contingency Definition
DPL_P1_2_CKT 23001	CONTINGENCY 'DPL_P1_2_CKT 23001' / 1597 OPEN BRANCH FROM BUS 231003 TO BUS 232000 CKT 1 / 231003 KEEN_230 230 232000 STEELE 230 1 END
DPL_P2-2_DP1	CONTINGENCY 'DPL_P2-2_DP1' /*138TH STREET BUS DISCONNECT BRANCH FROM BUS 232124 TO BUS 232126 CKT 1 /*138TH STREET OCEAN BAY 138 138 DISCONNECT BRANCH FROM BUS 232124 TO BUS 232626 CKT 1 /*138TH STREET T2 138 12 DISCONNECT BRANCH FROM BUS 232124 TO BUS 232170 CKT 1 /*138TH STREET SVC END
PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	CONTINGENCY 'PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B END
DPL_P7_1_DBL_1NCB_FSA	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA' /* #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 OPEN LINE FROM BUS 232000 TO BUS 923960 CKT 2 DISCONNECT BUS 923961 DISCONNECT BUS 923962 END
PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L' / 1691 OPEN BRANCH FROM BUS 200051 TO BUS 200065 CKT 1 / 200051 ROCKSPGS 500 200065 PCHBTM2S 500 1 END
CKT 23030B	CONTINGENCY 'CKT 23030B' / 1647 OPEN BRANCH FROM BUS 232002 TO BUS 232013 CKT 1 / 232002 CEDAR CK 230 232013 SILVER RUN 230 1 END
CKT 23032B	CONTINGENCY 'CKT 23032B' / 605 OPEN BRANCH FROM BUS 232003 TO BUS 232013 CKT 1 / 232003 CARTANZA 230 232013 SILVER RUN 230 1 END
DPL_P1_2_CKT 23015	CONTINGENCY 'DPL_P1_2_CKT 23015' / 723 OPEN BRANCH FROM BUS 231000 TO BUS 231001 CKT 1 / 231000 CLAY_230 230 231001 EDGEMR 5 230 1 END

Contingency Name	Contingency Definition
PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L' / 1740 OPEN BRANCH FROM BUS 200004 TO BUS 200064 CKT 1 / 200004 CNASTONE 500 200064 PCHBTM1S 500 1 END
PJM500_PS_P2-3_NFRD5_910	CONTINGENCY 'PJM500_PS_P2-3_NFRD5_910' / 1307 OPEN BRANCH FROM BUS 200012 TO BUS 219100 CKT 4 / 200012 NEWFRDM 500 219100 NEWFRDM 230 4 OPEN BRANCH FROM BUS 200012 TO BUS 200028 CKT 1 / 200012 NEWFRDM 500 200028 WINDSOR 500 1 END
Base Case	
DPL_P1_2_CKT 23033	CONTINGENCY 'DPL_P1_2_CKT 23033' / 598 OPEN BRANCH FROM BUS 232003 TO BUS 232004 CKT 1 / 232003 CARTANZA 230 232004 MILF_230 230 1 END
PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	CONTINGENCY 'PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK' / 1828 OPEN BRANCH FROM BUS 200051 TO BUS 200065 CKT 1 / 200051 ROCKSPGS 500 200065 PCHBTM2S 500 1 REMOVE MACHINE 1 FROM BUS 200034 /* 200034 PCHBTM 2 22.0 DEFAULT DISPATCH END
PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	CONTINGENCY 'PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC' / 700 OPEN BRANCH FROM BUS 214236 TO BUS 231001 CKT 1 / 214236 LINWOOD85 230 231001 EDGEMR 5 230 1 END
DPL_P7_1_DBL_6NC	CONTINGENCY 'DPL_P7_1_DBL_6NC' /* EDGE MOOR-LINWOOD(PECO) 230;CLAYMONT-LINWOOD(PECO) 230 OPEN LINE FROM BUS 231001 TO BUS 214236 CKT 1 OPEN LINE FROM BUS 231000 TO BUS 214235 CKT 1 END
PJM500_DPL_P4_2_REDLION-HOPE AT51	CONTINGENCY 'PJM500_DPL_P4_2_REDLION-HOPE AT51' / 2848 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 OPEN BRANCH FROM BUS 231004 TO BUS 200027 CKT 2 / 231004 RL_230 230 200027 REDLION 500 2 END

Contingency Name	Contingency Definition
PJM500_DPL_P4_2_REDION-HOPE AT50	CONTINGENCY 'PJM500_DPL_P4_2_REDION-HOPE AT50' / 1582 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 OPEN BRANCH FROM BUS 231004 TO BUS 200027 CKT 1 / 231004 RL_230 230 200027 REDLION 500 1 END

15 Affected Systems

None

16 Attachment 1: One Line Diagram