



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-061
LAUREL-SHARPTOWN 69 KV
65.58 MW Capacity / 109.3 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 generating facility located in Sussex County, Delaware. The installed facilities will have a total capability of 109.3 MW with 65.58 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is December 31, 2021. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-061
Project Name	LAUREL-SHARPTOWN 69 KV
State	Delaware
County	Sussex
Transmission Owner	DPL
MFO	109.3
MWE	109.3
MWC	65.58
Fuel	Solar
Basecase Study Year	2024

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

4 Point of Interconnection

4.1 Primary Point of Interconnection

AG1-461 will have a primary point of interconnection with the DPL transmission system via a terminal position at a new 3-breaker ring bus to be constructed on the Laurel – Sharptown 69 kV line.

4.2 Secondary Point of Interconnection

AG1-461 will have a secondary point of interconnection with the DPL transmission system via a terminal position at a new 3-breaker ring bus to be constructed on the Nelson – Vienna 138 kV line.

5 Cost Summary

The AG1-061 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$ 7,197,000
Total System Network Upgrade Costs	\$306,910,000 ¹
Total Costs	\$314,107,000

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

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

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

6 Transmission Owner Scope of Work

Scope of work for this project includes cutting a new 3-breaker ring bus into the Laurel – Sharptown 69kV line. Two terminals will be designated for the lines running in and out of the substation, with the 3rd terminal being designated for the generator.

Estimate: \$7,197,000

Major Equipment Included in Estimate:

• 2000A Power Circuit Breaker, 69 kV, 3 cycle	Qty. 3
• Disconnect Switch, 69 kV	Qty. 6
• Line Switch 69 kV	Qty. 3
• Relay Panel, Transmission Bus, FL/BU (20")	Qty. 3
• Control Panel, 69 kV Circuit Breaker (10")	Qty. 3
• Control Enclosure, 47'x 16'	Qty. 1
• CVT, 69 kV	Qty. 6

Estimate Assumptions:

- The required land (≥4 acres) is available for use.
- Developer responsible for land purchase for the substation, price is not included.
- Site clearing, permitting and grading performed by Developer.

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

Description	Total Cost
New 69 kV 3-breaker ring bus	\$7,197,000
Total Physical Interconnection Costs	\$7,197,000

7 Schedule

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

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

8 Transmission Owner Analysis

None

9 Interconnection Customer Requirements

9.1 Required Relaying and Communications

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

A breaker control relay on a breaker control panel will be required for the control and operation of each new 69 kV circuit breaker

9.2 Interconnection Customer Scope of Direct Connection Work

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

9.3 DPL Interconnection Customer Scope of Direct Connection Work Requirements

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

9.4 Special Operating Requirements

1. DPL will require the capability to remotely disconnect the generator from the grid by communication from its System Operations facility. Such disconnection may be facilitated by a generator breaker, or other method depending upon the specific circumstances and the evaluation by DPL.
2. DPL reserves the right to charge the Interconnection Customer operation and maintenance expenses to maintain the Interconnection Customer attachment facilities, including metering and telecommunications facilities, owned by DPL.
3. Interconnection Customer shall design its non-synchronous generation facility with the ability to maintain a power factor between 0.95 leading and 0.95 lagging measured at the point of interconnection.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Back Panel temperature (Fahrenheit) - (Required for plants with Maximum Facility Output of 3 MW or higher)
- Irradiance (Watts/meter²) - (Required for plants with Maximum Facility Output of 3 MW or higher)
- Ambient air temperature (Fahrenheit) - (Accepted, not required)
- Wind speed (meters/second) - (Accepted, not required)
- Wind direction (decimal degrees from true north) - (Accepted, not required)

10.3 Interconnected Transmission Owner Requirements

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

Each meter will be equipped with load profile, telemetry, and DNP outputs. The Interconnection Customer will be provided with one-meter DNP output for each meter. DPL will supply a wireless modem for MV90

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

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

11 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AG1-061 was evaluated as a 109.3 MW (Capacity 65.58 MW) injection taping the Laurel to Sharptown 69 kV Line in the DPL area. Project AG1-061 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-061 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPAC T
167808253	232241	VIENN_69	69.0	DP&L	232838	MARDEL A	69.0	DP&L	1	DPL_P1_3_LORE TO AT1&2	single	64.0	97.62	104.36	DC	4.31

11.2 Multiple Facility Contingency

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

None

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPAC T
165219617	213490	CHICHST2	230.0	PECO	213496	CHIREACT_53	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	116.49	116.98	DC	8.77
165219618	213496	CHIREACT_53	230.0	PECO	213972	TRAINER	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	116.49	116.98	DC	8.77
165219591	213559	DELCOTAP	230.0	PECO	228401	MCKLTON	230.0	AE	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	725.0	130.75	131.31	DC	8.73
165219643	213973	TRAINER2	230.0	PECO	213559	DELCOTAP	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	109.57	110.06	DC	8.77
167808215	231000	CLAY_230	230.0	DP&L	214235	LINWOOD 84	230.0	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ L	single	804.0	115.42	115.92	DC	10.08
167808216	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	115.33	115.82	DC	10.06
167808226	231001	EDGEMR 5	230.0	DP&L	214236	LINWOOD 85	230.0	PECO	1	PECO_P1-2_220-84	single	804.0	113.96	114.44	DC	9.75
167808227	231001	EDGEMR 5	230.0	DP&L	214236	LINWOOD 85	230.0	PECO	1	PECO_P1-2_220-84/* \$ DELCO \$ PECO_P1-2_220-84 \$ L	single	804.0	113.56	114.04	DC	9.72

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADI NG %	POST PROJE T LOADI NG %	AC/D C	MW IMPA CT
1678082 46	2310 01	EDGE MR 5	230.0	DP& L	2310 00	CLAY_230	230.0	DP& L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	114.49	114.93	DC	8.97
1678082 47	2310 01	EDGE MR 5	230.0	DP& L	2310 00	CLAY_230	230.0	DP& L	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	114.39	114.83	DC	8.95
1652199 42	2310 03	KEEN_230	230.0	DP& L	2310 02	HARMONY	230.0	DP& L	2	DPL_P7_1_DBL_3NC	tower	804.0	101.52	102.24	DC	12.84
1648522 16	2320 03	CARTANZA	230.0	DP& L	2320 13	SILVER RUN	230.0	PJM	1	DPL_P7_1_DBL_1NC B_FSA	tower	790.0	149.55	151.62	DC	36.45
1666598 44	2321 00	CHURCH	138.0	DP& L	2321 07	TOWNSEN D	138.0	DP& L	1	DPL_P7_1_DBL_1NC B_FSA	tower	348.0	170.9	177.26	DC	22.96
1666598 54	2321 06	MIDLTNTP	138.0	DP& L	2321 04	MT PLSNT	138.0	DP& L	1	DPL_P7_1_DBL_1NC B_FSA	tower	348.0	151.17	157.54	DC	22.96
1666598 39	2321 07	TOWNSEN D	138.0	DP& L	2321 06	MIDLTNTP	138.0	DP& L	1	DPL_P7_1_DBL_1NC B_FSA	tower	348.0	176.63	183.0	DC	22.96
1678082 52	2322 41	VIENN_69	69.0	DP& L	2328 38	MARDELA	69.0	DP& L	1	DPL_P1_2_CKT 6728	single	64.0	100.36	106.65	DC	4.03

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 T LOADI NG %	POST PROJE T LOADI NG %	AC/D C	MW IMPA CT
1675676 73	2000 12	NEWFRDM	500.0	PSE& G	2000 28	WINDSOR	500.0	JCP& L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	2983.0	111.58	112.07	DC	31.25
1675675 41	2000 51	ROCKSPGS	500.0	PJM	2000 65	PCHBTM2S	500.0	PECO	1	JC-P1-2-JCC-500-003	operation	2905.0	132.21	133.08	DC	55.27
1675676 30	2000 64	PCHBTM1S	500.0	PECO	2000 04	CNASTONE	500.0	BGE	1	TS_P1-2_#T6	operation	3620.0	117.57	118.16	DC	45.09
1675676 32	2000 64	PCHBTM1S	500.0	PECO	2000 04	CNASTONE	500.0	BGE	1	Base Case	operation	2920.0	103.71	104.27	DC	34.81
1675675 67	2000 66	PCHBTM1N	500.0	PECO	2700 72	FUR RUN_500	500.0	PJM	1	PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	operation	3609.0	128.89	129.44	DC	41.41
1675677 40	2134 89	CHICHST1	230.0	PECO	2135 88	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	operation	1079.0	105.09	105.6	DC	11.78

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 LOAD %	POST PROJECTIONS LOAD %	ACDC	MW IMPACT
167808213	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	148.68	149.64	DC	16.79
167808217	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	Base Case	operation	650.0	104.25	104.96	DC	10.01
167808224	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	PECO_P1-2_220-84	operation	804.0	146.14	147.07	DC	16.25
167808228	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	Base Case	operation	650.0	101.97	102.58	DC	8.68
167808244	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	144.11	144.96	DC	14.95
167808248	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	Base Case	operation	650.0	101.87	102.46	DC	8.44
167808434	231002	HARMONY	230.0	DP&L	231001	EDGE MR 5	230.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	924.0	105.75	108.4	DC	24.69
167808401	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	113.53	114.72	DC	10.26
167808295	232000	STEELE	230.0	DP&L	231003	KEEN_230	230.0	DP&L	1	DPL_P1_2_AB 2-037 KEENEY	operation	552.0	117.87	122.92	DC	28.15
167808192	232001	COOLSPRS	230.0	DP&L	232927	BENNETT_230	230.0	DP&L	2	DPL_P1_2_CKT 23034	operation	678.0	155.3	157.84	DC	39.54
167808194	232001	COOLSPRS	230.0	DP&L	232927	BENNETT_230	230.0	DP&L	2	Base Case	operation	550.0	106.01	107.96	DC	24.56
167808149	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	678.0	158.77	161.22	DC	42.3
167808151	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	550.0	132.76	133.68	DC	30.92
167808164	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	DPL_P1_2_CKT 23031	operation	790.0	139.15	140.85	DC	30.05
167808165	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	139.17	140.7	DC	22.27
167808132	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	155.74	157.34	DC	19.53
167808134	232004	MILF_230	230.0	DP&L	232000	STEELE	230.0	DP&L	1	Base Case	operation	550.0	100.34	101.23	DC	10.9
167808229	232004	MILF_230	230.0	DP&L	232002	CEDAR CK	230.0	DP&L	1	CKT 23032B	operation	738.0	119.13	120.92	DC	29.5
167808494	232005	VIENNA	230.0	DP&L	232000	STEELE	230.0	DP&L	1	DPL_P1_2_CKT 6716B	operation	550.0	98.02	104.52	DC	36.72
167808271	232006	INDRIV 4	230.0	DP&L	232001	COOLSPRS	230.0	DP&L	1	DPL_P1_2_CKT 23034	operation	800.0	139.22	140.68	DC	26.85
167808272	232006	INDRIV 4	230.0	DP&L	232001	COOLSPRS	230.0	DP&L	1	Base Case	operation	650.0	102.6	103.45	DC	12.74
167808287	232006	INDRIV 4	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	DPL_P1_2_CKT 23069A	operation	804.0	133.07	135.15	DC	38.32
167808289	232006	INDRIV 4	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	Base Case	operation	650.0	101.32	102.72	DC	20.98
167567659	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_PS_P 1-2_5015	operation	1117.0	105.59	106.35	DC	25.61
167808304	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	PJM500_PS_P 1-2_HOPE-SILVER	operation	678.0	104.23	105.91	DC	25.39
167808285	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P1_2_AB 2-037 KEENEY	operation	348.0	124.65	128.63	DC	15.49
167808286	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	Base Case	operation	280.0	120.12	124.19	DC	11.36
167808393	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P1_2_AB 2-037 KEENEY	operation	348.0	107.6	111.58	DC	15.49

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS T LOADING %	POST PROJECTIONS T LOADING %	AC/DC	MW IMPACT
167808395	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	Base Case	operation	273.0	101.35	105.52	DC	11.36
167808235	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	Base Case	operation	273.0	133.8	137.97	DC	11.36
167808236	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	DPL_P1_2_AB2-037 KEENEY	operation	348.0	133.06	137.04	DC	15.49
167808462	232116	VIENN138	138.0	DP&L	232005	VIENNA	230.0	DP&L	1	DPL_P1_2_CKT 6716B	operation	530.0	101.76	108.51	DC	36.72
167808464	232116	VIENN138	138.0	DP&L	232005	VIENNA	230.0	DP&L	1	Base Case	operation	460.0	102.94	106.06	DC	31.75
167808336	232117	VIENNA 8	138.0	DP&L	232116	VIENN138	138.0	DP&L	1	Base Case	operation	390.0	121.42	125.09	DC	31.75
167808337	232117	VIENNA 8	138.0	DP&L	232116	VIENN138	138.0	DP&L	1	DPL_P1_2_CKT 6716B	operation	482.0	111.91	119.33	DC	36.72
167808518	232117	VIENNA 8	138.0	DP&L	232119	NELSON	138.0	DP&L	1	DPL_P1_2_23085 & 13710	operation	247.0	98.54	100.67	DC	11.63
167808290	232119	NELSON	138.0	DP&L	232121	INDRV2&3	138.0	DP&L	1	DPL_P1_2_23085 & 13710	operation	193.0	122.42	133.27	DC	21.41
167808185	232234	TODD	69.0	DP&L	232233	PRESTON	69.0	DP&L	1	DPL_P1_2_23085 & 13710	operation	93.0	141.61	157.04	DC	14.35
167808186	232234	TODD	69.0	DP&L	232233	PRESTON	69.0	DP&L	1	Base Case	operation	82.0	96.18	101.81	DC	10.24
167808327	232239	SHARPTWN	69.0	DP&L	232241	VIENN_69	69.0	DP&L	1	Base Case	operation	50.0	17.68	117.74	DC	50.03
167808328	232239	SHARPTWN	69.0	DP&L	232241	VIENN_69	69.0	DP&L	1	DPL_P1_2_CKT 6752	operation	71.0	23.53	103.44	DC	56.74
167808249	232241	VIENN_69	69.0	DP&L	232838	MARDELA	69.0	DP&L	1	DPL_P1_2_CKT 6728	operation	64.0	140.06	144.78	DC	6.71
167808251	232241	VIENN_69	69.0	DP&L	232838	MARDELA	69.0	DP&L	1	Base Case	operation	64.0	115.68	121.36	DC	8.07
167808375	232247	DUP-SFRD	69.0	DP&L	232824	PINE ST	69.0	DP&L	1	DPL_P1_2_CKT 6722	operation	136.0	89.83	112.89	DC	31.36
167808161	232249	LAUREL	69.0	DP&L	232247	DUP-SFRD	69.0	DP&L	1	DPL_P1_2_CKT 6722	operation	93.0	125.52	159.24	DC	31.36
167808162	232249	LAUREL	69.0	DP&L	232247	DUP-SFRD	69.0	DP&L	1	Base Case	operation	82.0	81.64	112.96	DC	25.68
167808513	232291	ROCKAWLKN	69.0	DP&L	232271	NSALSBR	69.0	DP&L	1	Base Case	operation	105.0	99.8	103.26	DC	8.07
167808218	232838	MARDELA	69.0	DP&L	232270	HEBRON	69.0	DP&L	1	Base Case	operation	50.0	140.15	147.42	DC	8.07
167808202	232927	BENNETT_230	230.0	DP&L	232004	MILF_230	230.0	DP&L	2	DPL_P1_2_CKT 23034	operation	678.0	150.27	152.81	DC	39.54
167808204	232927	BENNETT_230	230.0	DP&L	232004	MILF_230	230.0	DP&L	2	Base Case	operation	550.0	99.79	101.74	DC	24.56
169544504	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	108.5	113.07	DC	33.56

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
165219643	5	TRAINER2 230.0 kV - DELCOTAP 230.0 kV Ckt 1	PECO: pe022 (2210) : Rebuild 0.82 miles of 230 kV line from Trainer to Delco Tap with bundled 1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$4,000,000 Time Estimate : 16.0 Months pe031 (2218) : Replace 1 disconnect switch at Delco Tap Project Type : FAC Cost : \$250,000 Time Estimate : 6.0 Months	\$4,250,000
164852216	10	CARTANZA 230.0 kV - SILVER RUN 230.0 kV Ckt 1	DPL: dt23032r0002 (1262) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$67,000,000 Time Estimate : 48-60 Months ds23032r0001 (1263) : Upgrade terminal equipment at Cartanza Substation (upgrade 3000A Breakers and CTs to 4000A) Project Type : FAC Cost : \$1,000,000 Time Estimate : 12-18 Months dt23032r0001 (2404) : Rebuild Cartanza - Silver Run 230 kV line Project Type : FAC Cost : \$65,000,000 Time Estimate : 48-60 Months	\$133,000,000
165219591	4	DELCOTAP 230.0 kV - MCKLTON 230.0 kV Ckt 1	ACE: ACEMickDelcorebuildr01 (21) : To mitigate the (ACE)Mickleton to Delco Tap 230 kV line (from bus 228401 to bus 213559 ckt 1) overload, it will require rebuilding 7.6 miles of 230 kV to a higher capacity Project Type : FAC Cost : \$19,000,000 Time Estimate : 36-42 Months ACEMickDelcostrandctdisclr01 (22) : To mitigate the (ACE)Mickleton to Delco Tap 230 kV line (from bus 228401 to bus 213559 ckt 1) overload, it will require a 230 kV strand bus and CT at Mickleton. Project Type : FAC Cost : \$400,000 Time Estimate : 12-32 Months	\$19,400,000
167808252,167808253	1	VIENN_69 69.0 kV - MARDELA 69.0 kV Ckt 1	DPL: s0835 (1273) : Rebuild the 6708 line from Vienna - Hebron (N. Salisbury to Hebron Section already completed) with new poles, conductor, foundations, insulators and OPGW Project Type : CON Cost : \$0 Time Estimate : 36-48 Months	\$0

ID	Idx	Facility	Upgrade Description	Cost
165219942	9	KEEN_230 230.0 kV - HARMONY 230.0 kV Ckt 2	DPL: dt23010r0001 (1324) : 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
166659839	13	TOWNSEND 138.0 kV - MIDLTNTP 138.0 kV Ckt 1	DPL: ds13808r0001 (1255) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months dt13808r0004 (1313) : Rebuild the 13808-1 line from Townsend - Middletown Tap with new poles, conductor, foundations, insulators, and OPGW. Terminal equipment at Townsend would also need to be upgraded Project Type : FAC Cost : \$7,500,000 Time Estimate : 36-48 Months ds13808r0003 (1316) : Upgrade terminal equipment at Townsend Substation Project Type : FAC Cost : \$300,000 Time Estimate : 12.0 Months	\$7,900,000
167808227,167808226	7	EDGE MR 5 230.0 kV - LINWOOD85 230.0 kV Ckt 1	PECO: b2985 (1268): 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 dt22085r0001 (1293) : 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 pe024 (2212) : 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	\$45,080,000

ID	Idx	Facility	Upgrade Description	Cost
166659844	11	CHURCH 138.0 kV - TOWNSEND 138.0 kV Ckt 1	DPL: ds13833r0001 (1275) : 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 (1276) : 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 (1277) : 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 (1278) : 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
166659854	12	MIDLTNTP 138.0 kV - MT PLSNT 138.0 kV Ckt 1	DPL: ds13808r0001 (1255) : Upgrade disconnect switch at Middletown Tap Project Type : FAC Cost : \$100,000 Time Estimate : 12.0 Months ds13808r0002 (1256) : 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 (1297) : To mitigate the (DPL) Mt. Pleasant - Middletown Tap 138 kV line (from bus 232104 to 232106) overload is will require increasing the emergency rating of the line by rebuilding the line with new poles, conductor, foundations, insulators and OPGW. In addition, terminal upgrades will be required at Mt. Pleasant Project Type : FAC Cost : \$7,500,000 Time Estimate : 36-48 Months	\$8,000,000

ID	Idx	Facility	Upgrade Description	Cost
167808247,167808246	8	EDGEMR 5 230.0 kV - CLAY_230 230.0 kV Ckt 1	DPL: dt23015r0001 (1281) : 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
165219618	2	CHIREACT_53 230.0 kV - TRAINER 230.0 kV Ckt 1	PECO: pe023 (2211) : Rebuild 2 miles of 230 kV line from Chichester to Trainer with 2x1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$9,900,000 Time Estimate : 36.0 Months pe034 (2221) : Replace 1 line trap at Trainer Project Type : FAC Cost : \$90,000 Time Estimate : 6.0 Months pe035 (2222) : Replace 7 relays at Chichester & Trainer Project Type : FAC Cost : \$900,000 Time Estimate : 24.0 Months	\$13,880,000
165219617	3	CHICHST2 230.0 kV - CHIREACT_53 230.0 kV Ckt 1	pe036 (2223) : Replace 1 line trap at Chichester Project Type : FAC Cost : \$90,000 Time Estimate : 6.0 Months pe037 (2224) : Replace 2 Circuit breakers at Trainer Project Type : FAC Cost : \$1,600,000 Time Estimate : 12.0 Months pe038 (2225) : Replace 12 CTs at Chichester & Trainer Project Type : FAC Cost : \$1,300,000 Time Estimate : 24.0 Months	
	&	&		

ID	Idx	Facility	Upgrade Description	Cost
167808215,167 808216	6	CLAY_230 230.0 kV - LINWOOD84 230.0 kV Ckt 1	DPL: dt22084r0001 (1291) : 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 PECO: pe025 (2213) : 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	\$11,600,000
			TOTAL COST	\$306,910,000

11.6 Flow Gate Details - Primary POI

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
167808252	232241	VIENN_69	DP&L	232838	MARDELA	DP&L	1	DPL_P1_2_CKT 6728	single	64.0	100.36	106.65	DC	4.03

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232417	X3-008 C	0.1573	80/20	0.1573
232426	Y1-080 FULL	0.0324	80/20	0.0324
232919	VN10	0.3080	80/20	0.3080
924831	AB2-136 C	3.6483	80/20	3.6483
925151	AB2-172 C	2.4930	80/20	2.4930
927031	AC1-190 C	4.6910	80/20	4.6910
938651	AE1-087 C	2.0994	80/20	2.0994
960341	AF2-325 C	0.5940	80/20	0.5940
960671	AF2-358 C O1	9.7788	80/20	9.7788
960871	AF2-378 C	0.1604	80/20	0.1604
960881	AF2-379 C	-0.1323	Adder	-0.16
962161	AG1-061 C O1	4.0260	80/20	4.0260
965821	AG1-450	4.0123	80/20	4.0123
WEC	WEC	0.0028	Confirmed LTF	0.0028
LGEE	LGEE	0.0057	Confirmed LTF	0.0057
CPL	CPL	0.0061	Confirmed LTF	0.0061
G-007A	G-007A	0.0072	Confirmed LTF	0.0072
VFT	VFT	0.0258	Confirmed LTF	0.0258
CBM-W2	CBM-W2	0.0806	Confirmed LTF	0.0806
TVA	TVA	0.0126	Confirmed LTF	0.0126
SIGE	SIGE	0.0005	Confirmed LTF	0.0005
CBM-S2	CBM-S2	0.0940	Confirmed LTF	0.0940
CBM-S1	CBM-S1	0.0034	Confirmed LTF	0.0034
CBM-N	CBM-N	0.0060	Confirmed LTF	0.0060
MEC	MEC	0.0143	Confirmed LTF	0.0143
LAGN	LAGN	0.0158	Confirmed LTF	0.0158
CBM-W1	CBM-W1	0.1262	Confirmed LTF	0.1262

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
165219617	213490	CHICHST2	PECO	213496	CHIREACT_53	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	116.49	116.98	DC	8.77

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

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

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

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

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

11.6.3 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
165219618	213496	CHIREACT_53	PECO	213972	TRAINER	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	116.49	116.98	DC	8.77

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

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

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

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

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

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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
165219591	213559	DELCOTAP	PECO	228401	MCKLTON	AE	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	725.0	130.75	131.31	DC	8.73

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

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

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

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

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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
165219643	213973	TRAINER2	PECO	213559	DELCOTAP	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	109.57	110.06	DC	8.77

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

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

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

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

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

11.6.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
167808216	231000	CLAY_230	DP&L	214235	LINWOOD84	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ PECO_P1-2_220-85 \$ L	single	804.0	115.33	115.82	DC	10.06

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

11.6.7 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
167808227	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	113.56	114.04	DC	9.72

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

11.6.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
167808247	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	114.39	114.83	DC	8.95

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

11.6.9 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
165219942	231003	KEEN_230	DP&L	231002	HARMONY	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	101.52	102.24	DC	12.84

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

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

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

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

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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
164852216	232003	CARTANZ A	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB_FS A	tower	790.0	149.55	151.62	DC	36.45

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

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

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

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

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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 %	ACID C	MW IMPACT
166659844	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FS_A	tower	348.0	170.9	177.26	DC	22.96

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

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

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

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

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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
166659854	232106	MIDLTNTP	DP&L	232104	MT PLSNT	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	151.17	157.54	DC	22.96

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

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

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

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

11.6.13 Index 13

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
166659839	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A	tower	348.0	176.63	183.0	DC	22.96

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

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

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

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

11.7 Queue Dependencies

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

Queue Number	Project Name	Status
AA1-102	Kings Creek-Loretto 138kV	Partially in Service - Under Construction
AA2-069	Cartanza 230kV	Suspended
AB1-056	Indian River 230kV I	Engineering and Procurement
AB1-116	Egg Harbor Road 12kV	In Service
AB1-137	Frankford 25kV	Withdrawn
AB1-141	Church-Wye Mills 138 kV I	Engineering and Procurement
AB1-142	Church-Wye Mills 138 kV II	Engineering and Procurement
AB1-176	Price 25kV II	Active
AB2-032	Church-Wye Mills 138 kV	Engineering and Procurement
AB2-036	Church-Steele 138kV	Active
AB2-037	Keeney-Steele 230kV	Active
AB2-120	Piney Grove-New Church 138kV	Active
AB2-130	Laurel 69kV	Active
AB2-133	Chestertown-Church 69kV	Engineering and Procurement
AB2-135	Church-Kent 69kV	Active
AB2-136	West Cambridge-Vienna 69kV	Active
AB2-153	Church-Wye Mills 138 kV	Engineering and Procurement
AB2-172	Todd 69kV	Engineering and Procurement
AB2-179	Townsend 138kV	Engineering and Procurement
AB2-180	Rockawalkin 69kV	Engineering and Procurement
AB2-185	Wye Mills 25kV	Active
AC1-091	Cedar Creek 138kV I	Active
AC1-092	Cedar Creek 138kV II	Active
AC1-093	Cedar Creek 138kV III	Active
AC1-094	Cedar Creek 138kV IV	Active
AC1-190	East New Market 69kV	Active
AC1-213	North Salisbury 25kV	Active
AC2-023	Hebron 69kV	Active
AC2-185	Cedar Creek 138kV II	Active
AC2-186	Harrington 25kV	Engineering and Procurement
AD1-097	Linwood 230 kV II	Engineering and Procurement
AD2-059	Chapel Street 138 kV	Active
AD2-076	Centreville 69 kV	Active
AE1-061	Minotola 12 kV	Active
AE1-087	Todd 69 kV	Engineering and Procurement
AE1-107	Mt. Pleasant-Lums Pond 138 kV	Active
AE1-115	Churchtown 69 kV	Active
AE1-117	Bethany 138 kV	Active
AE1-145	Wallops Island 69 kV	Active

Queue Number	Project Name	Status
AE1-161	Landis 138 kV	Active
AE1-218	Glassboro 12 kV	Engineering and Procurement
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
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
AF1-264	Runnemedede 13 kV	Engineering and Procurement
AF2-020	Carll's Corner 69 kV	Active
AF2-023	Churchtown 69 kV	Active
AF2-024	Mickleton 69 kV	Active
AF2-038	Printz 230 kV	Active
AF2-055	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
AG1-111	Churchtown 69 kV	Active
AG1-149	Kingston 12 kV II	Active
AG1-150	Wattsville 69 kV II	Active
AG1-254	Salem-Woodstown 69 kV	Active
AG1-255	Churchtown-Orchard 230 kV	Active
AG1-263	Gloucester 230 kV	Active
AG1-318	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

Queue Number	Project Name	Status
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
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
Y3-058	Rockawalkin 69kV	In Service
Z1-082	Lawnside 13kV	In Service
Z2-076	Worcester South 25kV	In Service
Z2-077	Worcester North 25kV	In Service

11.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
PECO_P1-2_220-84	CONTINGENCY 'PECO_P1-2_220-84' /* \$ DELCO \$ 220-84 \$ LB TRIP BRANCH FROM BUS 214235 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 \$ DELCO \$ 220-84 \$ L END
DPL_P1_2_23085 &13710	CONTINGENCY 'DPL_P1_2_23085 &13710' DISCONNECT BUS 232005 /STEELE - VIENNA 230 & VIENNA AT20 DISCONNECT BUS 232116 /VIENNA XFMR - VIENNA 138 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
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

Contingency Name	Contingency Definition
DPL_P1_2_CKT 6722	CONTINGENCY 'DPL_P1_2_CKT 6722' DISCONNECT BUS 232827 / SUSSEX - PEPPER - MUMFORD 69 DISCONNECT BUS 232826 / MUMFORD - LAUREL 69 DISCONNECT BUS 231940 / T11 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
DPL_P1_2_CKT 6728	CONTINGENCY 'DPL_P1_2_CKT 6728' OPEN LINE FROM BUS 232272 TO BUS 232274 CIRCUIT 1 /MOUNT HERMON - PINEY GROVE 69 DISCONNECT BUS 230912 / PINEY GROVE 69 CAP END
DPL_P1_2_CKT 23001	CONTINGENCY 'DPL_P1_2_CKT 23001' OPEN LINE FROM BUS 231003 TO BUS 232000 CIRCUIT 1 /#1 KEENEY EHV - STEELE 230 END
PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	CONTINGENCY 'PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B END
DPL_P7_1_DBL_1NCB_FSA	CONTINGENCY 'DPL_P7_1_DBL_1NCB_FSA' /* #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 OPEN LINE FROM BUS 232000 TO BUS 923960 CKT 2 DISCONNECT BUS 923961 DISCONNECT BUS 923962 END
PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L' TRIP BRANCH FROM BUS 200064 TO BUS 200004 CKT 1 /* PCHBTM1S 500.00 CNASTONE 500.00 \$ CHESCO \$ PECO_P1-2_5012 \$ L END
DPL_P1_3_LORETO AT1&2	CONTINGENCY 'DPL_P1_3_LORETO AT1&2' OPEN LINE FROM BUS 232127 TO BUS 232275 CIRCUIT 1 /LORETTO AT1 138/69 OPEN LINE FROM BUS 232127 TO BUS 232275 CIRCUIT 2 /LORETTO AT2 138/69 END

Contingency Name	Contingency Definition
PJM500_PS_P1-2_HOPE-SILVER	CONTINGENCY 'PJM500_PS_P1-2_HOPE-SILVER' /* HOPE CREEK TO SILVER RUN DISCONNECT BUS 232012 DISCONNECT BUS 232014 END
CKT 23032B	CONTINGENCY 'CKT 23032B' OPEN LINE FROM BUS 232013 TO BUS 232003 CIRCUIT 1 /SILVER RUN - CARTANZA 230 END
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
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
DPL_P1_2_CKT 23034	CONTINGENCY 'DPL_P1_2_CKT 23034' OPEN LINE FROM BUS 232006 TO BUS 232004 CIRCUIT 1 /INDIAN RIVER - MILFORD 230 END
DPL_P1_2_CKT 6752	CONTINGENCY 'DPL_P1_2_CKT 6752' DISCONNECT BUS 232824 / DUPONT SEAFORD - PINE ST - NORTH SEAFORD 69 END
DPL_P1_2_CKT 23069A	CONTINGENCY 'DPL_P1_2_CKT 23069A' OPEN LINE FROM BUS 232001 TO BUS 232927 CIRCUIT 2 /COOL SPRING - BENNETT 230 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

Contingency Name	Contingency Definition
DPL_P1_2_CKT 6716B	CONTINGENCY 'DPL_P1_2_CKT 6716B' OPEN LINE FROM BUS 232234 TO BUS 232233 CIRCUIT 1 / TODD - PRESTON - 69 END

12 Short Circuit Analysis - Primary POI

The following Breakers are overdutied:

None

12.1 System Reinforcements - Short Circuit

None

13 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AG1-061 was evaluated as a 109.3 MW (Capacity 65.58 MW) injection taping the Nelson - Vienna 138 kV Line in the DPL area. Project AG1-061 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-061 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

13.1 Generation Deliverability

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

None

13.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADIN G %	POST PROJE CT LOADIN G %	AC D C	MW IMPAC T
174160945	232112	FELTON	138.0	DP&L	232110	CHESWOLD	138.0	DP&L	1	DPL_P4-2_DP11	breaker	242.0	95.96	101.52	DC	13.59
166659741	232117	VIENNA8	138.0	DP&L	232116	VIENNA138	138.0	DP&L	1	DPL_P2-2_DP1	bus	482.0	98.87	108.04	DC	44.14
166659931	232117	VIENNA8	138.0	DP&L	232116	VIENNA138	138.0	DP&L	1	DPL_P7_1_B47_D PL1	tower	482.0	98.84	108.01	DC	44.12

13.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADIN G %	POST PROJE CT LOADIN G %	AC D C	MW IMPAC T
174369393	200012	NEWFRDM	500.0	PSE&G	200028	WINDSOR	500.0	JCP&L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	2983.0	111.72	112.21	DC	31.18
174369290	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PECO	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	133.88	134.77	DC	55.7
174160967	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	TS_P4_#T7_FUR RUN 500_CB 3	breaker	3620.0	120.49	121.08	DC	45.17
174160925	200066	PCHBTM1N	500.0	PECO	270072	FUR RUN_500	500.0	PJM	1	PJM_500_BG_P4_5_C NSTN_B	breaker	3609.0	128.5	129.04	DC	41.06
165219617	213490	CHICHST2	230.0	PECO	213496	CHIREACT_53	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	116.49	116.98	DC	8.88
173967241	213490	CHICHST2	230.0	PECO	213496	CHIREACT_53	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	116.49	116.98	DC	8.88
165219618	213496	CHIREACT_53	230.0	PECO	213972	TRAINER	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ PECO_P2-2_CHI230B1 \$ B	bus	841.0	116.49	116.98	DC	8.88

ID	FRO M BUS#	FROM BUS	kV	FRO M ARE A	TO BUS#	TO BUS	kV	TO BUS ARE A	CK T ID	CONT NAME	Type	Rati ng MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC/ DC	MW IMPA CT
173967 240	2134 96	CHIREACT _53	230 .0	PEC O	2139 72	TRAINER	230 .0	PEC O	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	841. 0	116.49	116.98	DC	8.88
165219 591	2135 59	DELCOTAP	230 .0	PEC O	2284 01	MCKLTON	230 .0	AE	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	725. 0	130.75	131.31	DC	8.83
173784 066	2135 59	DELCOTAP	230 .0	PEC O	2284 01	MCKLTON	230 .0	AE	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	725. 0	130.75	131.31	DC	8.83
165219 643	2139 73	TRAINER2	230 .0	PEC O	2135 59	DELCOTAP	230 .0	PEC O	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	841. 0	109.57	110.06	DC	8.88
174161 036	2139 73	TRAINER2	230 .0	PEC O	2135 59	DELCOTAP	230 .0	PEC O	1	PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	break er	841. 0	109.57	110.06	DC	8.88
167808 215	2310 00	CLAY_230	230 .0	DP& L	2142 35	LINWOOD 84	230 .0	PEC O	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804. 0	115.42	115.92	DC	10.17
167808 246	2310 01	EDGEMR 5	230 .0	DP& L	2310 00	CLAY_230	230 .0	DP& L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804. 0	114.49	114.93	DC	9.06
175189 059	2310 01	EDGEMR 5	230 .0	DP& L	2142 36	LINWOOD 85	230 .0	PEC O	1	DPL_P1_2_CKT 23015	single	804. 0	113.72	114.16	DC	9.05
174161 004	2310 02	HARMON Y	230 .0	DP& L	2310 01	EDGEMR 5	230 .0	DP& L	1	PECO_P4_PEACH215/* \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	break er	924. 0	106.94	109.61	DC	24.91
165219 942	2310 03	KEEN_230	230 .0	DP& L	2310 02	HARMON Y	230 .0	DP& L	2	DPL_P7_1_DBL_3NC	tower	804. 0	101.52	103.16	DC	13.14
174160 782	2320 02	CEDAR CK	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P4-2_DP11	break er	678. 0	155.24	158.16	DC	49.33
164851 938	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	PECO_P2- 2_CHI230B1/* \$ DELCO \$ PECO_P2- 2_CHI230B1 \$ B	bus	790. 0	116.08	117.34	DC	22.24
164851 939	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P2-2_DP1	bus	790. 0	115.2	116.45	DC	22.1
164852 216	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P7_1_DBL_1NCB_ FSA	tower	790. 0	149.57	151.67	DC	37.14
164852 217	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P7_1_DBL_6NC	tower	790. 0	117.05	118.32	DC	22.41
173967 075	2320 03	CARTANZ A	230 .0	DP& L	2320 13	SILVER RUN	230 .0	PJM	1	DPL_P4-2_DP11	break er	790. 0	150.93	153.15	DC	39.21
174161 009	2320 05	VIENNA	230 .0	DP& L	2320 00	STEELE	230 .0	DP& L	1	DPL_P4-2_DPIR235	break er	550. 0	108.85	113.05	DC	51.2
174160 888	2320 06	INDRIV 4	230 .0	DP& L	2320 04	MILF_230	230 .0	DP& L	1	DPL_P4-2_DP36	break er	804. 0	135.33	137.53	DC	40.75
174160 991	2320 12	HOPE CREEK	230 .0	PJM	2000 29	HOPE CRK	500 .0	PSE& G	1	PJM500_DPL_P4_2_RE DLION-HOPE AT51	break er	1117 .0	107.42	108.21	DC	26.77
174369 366	2320 12	HOPE CREEK	230 .0	PJM	2000 29	HOPE CRK	500 .0	PSE& G	1	PJM500_DPL_P4_2_RE DLION-HOPE AT50	break er	1117 .0	106.78	107.56	DC	26.22
174160 906	2320 13	SILVER RUN	230 .0	PJM	2310 04	RL_230	230 .0	DP& L	1	DPL_P4-2_DP11	break er	678. 0	106.05	107.97	DC	28.94
166659 844	2321 00	CHURCH	138 .0	DP& L	2321 07	TOWNSEN D	138 .0	DP& L	1	DPL_P7_1_DBL_1NCB_ FSA	tower	348. 0	170.9	177.36	DC	23.3
174160 889	2321 00	CHURCH	138 .0	DP& L	2321 07	TOWNSEN D	138 .0	DP& L	1	DPL_P4-2_DP18_FSA	break er	348. 0	125.4	129.37	DC	15.41
166659 854	2321 06	MIDLTNTP	138 .0	DP& L	2321 04	MT PLSNT	138 .0	DP& L	1	DPL_P7_1_DBL_1NCB_ FSA	tower	348. 0	151.17	157.64	DC	23.3
174160 958	2321 06	MIDLTNTP	138 .0	DP& L	2321 04	MT PLSNT	138 .0	DP& L	1	DPL_P4-2_DP18_FSA	break er	348. 0	108.34	112.31	DC	15.41

ID	FRO M BUS#	FROM BUS	kV	FRO M BUS ARE A	TO BUS#	TO BUS	kV	TO BUS ARE A	CK T ID	CONT NAME	Type	Rati ng MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPA CT
166659 708	2321 07	TOWNSEN D	138 .0	DP& L	2321 06	MIDLTNTP	138 .0	DP& L	1	PECO_P2- 2_CON230BD/* \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B	bus	348. 0	106.54	109.69	DC	10.97
166659 709	2321 07	TOWNSEN D	138 .0	DP& L	2321 06	MIDLTNTP	138 .0	DP& L	1	PECO_P2- 2_NEWL230B/* \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B	bus	348. 0	105.95	109.11	DC	10.97
166659 839	2321 07	TOWNSEN D	138 .0	DP& L	2321 06	MIDLTNTP	138 .0	DP& L	1	DPL_P7_1_DBL_1NCB_ FSA	tower	348. 0	176.63	183.1	DC	23.3
166659 840	2321 07	TOWNSEN D	138 .0	DP& L	2321 06	MIDLTNTP	138 .0	DP& L	1	DPL_P7_1_DBL_4NC	tower	348. 0	127.75	129.24	DC	12.7
174160 862	2321 07	TOWNSEN D	138 .0	DP& L	2321 06	MIDLTNTP	138 .0	DP& L	1	DPL_P4-2_DP18_FSA	break er	348. 0	133.8	137.77	DC	15.41
174160 916	2321 14	SHARNGT N	138 .0	DP& L	2321 12	FELTON	138 .0	DP& L	1	DPL_P4-2_DP11	break er	242. 0	104.68	110.24	DC	13.59
174160 980	2321 16	VIENN138	138 .0	DP& L	2320 05	VIENNA	230 .0	DP& L	1	DPL_P4-2_DPIR235	break er	530. 0	112.99	117.36	DC	51.2
166659 930	2321 17	VIENNA 8	138 .0	DP& L	2321 16	VIENN138	138 .0	DP& L	1	DPL_P7_1_DBL_4NC	tower	482. 0	101.79	111.22	DC	45.39
174160 918	2321 17	VIENNA 8	138 .0	DP& L	2321 16	VIENN138	138 .0	DP& L	1	DPL_P4-2_DPIR235	break er	482. 0	124.27	129.06	DC	51.2
174160 809	2322 15	KENT	69. 0	DP& L	2328 12	NMEREDT H	69. 0	DP& L	1	DPL_P4-2_DP11	break er	93.0	147.76	150.64	DC	5.93
174160 860	2322 30	TRAP ALT	69. 0	DP& L	2322 32	TRAPPETP	69. 0	DP& L	1	DPL_P4-2_DP11	break er	173. 0	129.59	137.23	DC	13.38
174160 858	2322 32	TRAPPETP	69. 0	DP& L	2322 27	EASTN_69	69. 0	DP& L	1	DPL_P4-2_DP11	break er	173. 0	129.88	137.78	DC	13.85
174160 822	2322 33	PRESTON	69. 0	DP& L	2328 21	TANYARD	69. 0	DP& L	1	DPL_P4-2_DP11	break er	173. 0	144.16	152.06	DC	13.85
173967 123	2322 34	TODD	69. 0	DP& L	2322 33	PRESTON	69. 0	DP& L	1	DPL_P4-2_DP12	break er	93.0	142.29	147.54	DC	10.83
174160 864	2322 41	VIENN_69	69. 0	DP& L	2322 34	TODD	69. 0	DP& L	1	DPL_P4-2_DP11	break er	143. 0	139.84	147.81	DC	11.4
173784 159	2322 50	NELSN_69	69. 0	DP& L	2328 28	SHORT 1	69. 0	DP& L	1	DPL_P4-2_DPIR8060	break er	112. 0	101.79	113.34	DC	12.94
173967 126	2328 12	NMEREDT H	69. 0	DP& L	9248 20	AB2-135 TAP	69. 0	DP& L	1	DPL_P4-2_DP11	break er	93.0	126.37	129.25	DC	5.93
174160 839	2328 20	TALBOT	69. 0	DP& L	2322 30	TRAP ALT	69. 0	DP& L	1	DPL_P4-2_DP11	break er	173. 0	138.61	146.51	DC	13.85
174160 832	2328 21	TANYARD	69. 0	DP& L	2328 20	TALBOT	69. 0	DP& L	1	DPL_P4-2_DP11	break er	173. 0	141.09	149.0	DC	13.85
173784 094	2328 28	SHORT 1	69. 0	DP& L	2322 49	LAUREL	69. 0	DP& L	1	DPL_P4-2_DPIR8060	break er	93.0	111.08	124.99	DC	12.94
174160 939	9239 60	AB2-037 TAP	230 .0	DP& L	2310 03	KEEN_230	230 .0	DP& L	2	DPL_P4-2_DP8	break er	727. 0	108.61	113.47	DC	35.74

13.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/D C	MW IMPACT
167567673	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	111.58	112.07	DC	31.18
167567541	200051	ROCKSPGS	500.0	PJM	200065	PCHBTM2S	500.0	PECO	1	JC-P1-2-JCC-500-003	operation	2905.0	132.21	133.08	DC	55.32
167567630	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	TS_P1-2_#T6	operation	3620.0	117.57	118.16	DC	45.13
167567632	200064	PCHBTM1S	500.0	PECO	200004	CNASTONE	500.0	BGE	1	Base Case	operation	2920.0	103.71	104.27	DC	34.83
167567567	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	126.78	127.32	DC	41.45
167567740	213489	CHICHST1	230.0	PECO	213588	EDDYSTN4	230.0	PECO	1	PECO_P1-2_220-04/* \$ DELCO \$ PECO_P1-2_220-04 \$ L	operation	1079.0	105.09	105.6	DC	11.87
167808213	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	148.68	149.65	DC	16.95
167808217	231000	CLAY_230	230.0	DP&L	214235	LINWOOD84	230.0	PECO	1	Base Case	operation	650.0	104.25	104.96	DC	10.1
167808228	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	Base Case	operation	650.0	101.97	102.59	DC	8.77
167808244	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	operation	804.0	144.11	144.97	DC	15.1
167808248	231001	EDGE MR 5	230.0	DP&L	231000	CLAY_230	230.0	DP&L	1	Base Case	operation	650.0	101.87	102.47	DC	8.53
175189058	231001	EDGE MR 5	230.0	DP&L	214236	LINWOOD85	230.0	PECO	1	DPL_P1_2_CKT 23015	operation	804.0	143.28	144.14	DC	15.08
167808434	231002	HARMONY	230.0	DP&L	231001	EDGE MR 5	230.0	DP&L	1	PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	operation	924.0	105.75	108.42	DC	24.91
167808401	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	113.53	114.72	DC	10.25
167808295	232000	STEELE	230.0	DP&L	231003	KEEN_230	230.0	DP&L	1	DPL_P1_2_AB 2-037 KEENEY	operation	552.0	117.87	123.23	DC	29.86
167808192	232001	COOLSPRS	230.0	DP&L	232927	BENNETT_230	230.0	DP&L	2	DPL_P1_2_CKT 23034	operation	678.0	155.3	157.96	DC	41.36
167808194	232001	COOLSPRS	230.0	DP&L	232927	BENNETT_230	230.0	DP&L	2	Base Case	operation	550.0	106.01	107.94	DC	24.33
167808149	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	CKT 23032B	operation	678.0	158.77	161.09	DC	40.1
167808151	232002	CEDAR CK	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	550.0	132.76	133.64	DC	28.8
167808165	232003	CARTANZA	230.0	DP&L	232013	SILVER RUN	230.0	PJM	1	Base Case	operation	650.0	139.17	140.69	DC	22.1
167808229	232004	MILF_230	230.0	DP&L	232002	CEDAR CK	230.0	DP&L	1	CKT 23032B	operation	738.0	119.13	120.93	DC	29.73
175188995	232004	MILF_230	230.0	DP&L	962380	AG1-087 TAP	230.0	DP&L	1	CKT 23032B	operation	550.0	155.76	157.02	DC	15.44
175374427	232005	VIENNA	230.0	DP&L	232000	STEELE	230.0	DP&L	1	DPL_P1_2_CKT 23034	operation	550.0	98.55	106.97	DC	47.48
167808271	232006	INDRIV 4	230.0	DP&L	232001	COOLSPRS	230.0	DP&L	1	DPL_P1_2_CKT 23034	operation	800.0	139.22	141.14	DC	35.26

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 LOADING %	POST PROJECTIONS LOADING %	AC/D C	MW IMPACT
167808272	232006	INDRIV 4	230.0	DP&L	232001	COOLSPRS	230.0	DP&L	1	Base Case	operation	650.0	102.6	103.88	DC	19.22
167808289	232006	INDRIV 4	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	Base Case	operation	650.0	101.32	102.91	DC	23.85
175374297	232006	INDRIV 4	230.0	DP&L	232004	MILF_230	230.0	DP&L	1	DPL_P1_2_CKT 23070	operation	804.0	131.23	133.13	DC	35.21
167567659	232012	HOPE CREEK	230.0	PJM	200029	HOPE CRK	500.0	PSE&G	1	PJM500_PS_P1-2_5015	operation	1117.0	105.59	106.33	DC	25.2
167808304	232013	SILVER RUN	230.0	PJM	231004	RL_230	230.0	DP&L	1	PJM500_PS_P1-2_HOPE-SILVER	operation	678.0	104.23	105.83	DC	24.28
167808285	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	DPL_P1_2_AB2-037 KEENEY	operation	348.0	124.65	128.61	DC	15.37
167808286	232100	CHURCH	138.0	DP&L	232107	TOWNSEND	138.0	DP&L	1	Base Case	operation	280.0	120.12	124.05	DC	10.99
167808393	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	DPL_P1_2_AB2-037 KEENEY	operation	348.0	107.6	111.56	DC	15.37
167808395	232106	MIDLTNTP	138.0	DP&L	232104	MT PLSNT	138.0	DP&L	1	Base Case	operation	273.0	101.35	105.38	DC	10.99
167808235	232107	TOWNSEND	138.0	DP&L	232106	MIDLTNTP	138.0	DP&L	1	Base Case	operation	273.0	133.8	137.84	DC	10.99
167808464	232116	VIENN138	138.0	DP&L	232005	VIENNA	230.0	DP&L	1	Base Case	operation	460.0	102.94	112.54	DC	44.13
167808336	232117	VIENNA 8	138.0	DP&L	232116	VIENN138	138.0	DP&L	1	Base Case	operation	390.0	121.42	132.74	DC	44.13
167808290	232119	NELSON	138.0	DP&L	232121	INDRV2&3	138.0	DP&L	1	DPL_P1_2_23085 & 13710	operation	193.0	122.42	148.11	DC	50.21
167808185	232234	TODD	69.0	DP&L	232233	PRESTON	69.0	DP&L	1	DPL_P1_2_23085 & 13710	operation	93.0	141.61	146.87	DC	10.85
174985818	232249	LAUREL	69.0	DP&L	232247	DUP-SFRD	69.0	DP&L	1	DPL_P1_2_CKT 23002	operation	93.0	120.74	124.51	DC	7.8
167808358	232250	NELSN_69	69.0	DP&L	232828	SHORT 1	69.0	DP&L	1	Base Case	operation	87.0	98.64	102.6	DC	7.65
167808202	232927	BENNETT_230	230.0	DP&L	232004	MILF_230	230.0	DP&L	2	DPL_P1_2_CKT 23034	operation	678.0	150.27	152.93	DC	41.36
167808204	232927	BENNETT_230	230.0	DP&L	232004	MILF_230	230.0	DP&L	2	Base Case	operation	550.0	99.79	101.73	DC	24.33
169544504	923960	AB2-037 TAP	230.0	DP&L	231003	KEEN_230	230.0	DP&L	2	DPL_P1_2_CKT 23001	operation	727.0	108.5	113.35	DC	35.6
174785009	962160	AG1-061 TAP	138.0	DP&L	232119	NELSON	138.0	DP&L	1	DPL_P1_2_23085 & 13710	operation	247.0	98.54	125.19	DC	65.8
174785010	962160	AG1-061 TAP	138.0	DP&L	232119	NELSON	138.0	DP&L	1	Base Case	operation	183.0	74.81	100.79	DC	47.54
175374056	962380	AG1-087 TAP	230.0	DP&L	232000	STEELE	230.0	DP&L	1	CKT 23032B	operation	550.0	155.74	157.0	DC	15.44
175374057	962380	AG1-087 TAP	230.0	DP&L	232000	STEELE	230.0	DP&L	1	Base Case	operation	550.0	100.34	100.9	DC	6.88

13.5 Flow Gate Details - Secondary POI

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

13.5.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174160945	232112	FELTON	DP&L	232110	CHESWOLD	DP&L	1	DPL_P4-2_DP11	breaker	242.0	95.96	101.52	DC	13.59

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

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

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

13.5.2 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
174160918	232117	VIENNA 8	DP&L	232116	VIENN138	DP&L	1	DPL_P4-2_DPIR235	breaker	482.0	124.27	129.06	DC	51.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	1.0628	50/50	1.0628
232405	W1-003 E	6.2523	50/50	6.2523
232406	W1-004 C	1.0628	50/50	1.0628
232407	W1-004 E	6.2523	50/50	6.2523
232408	W1-005 C	1.0628	50/50	1.0628
232409	W1-005 E	6.2523	50/50	6.2523
232410	W1-006 C	1.0628	50/50	1.0628
232411	W1-006 E	6.2523	50/50	6.2523
232412	X1-032 E	2.0394	50/50	2.0394
232418	X3-008 E	3.4342	Adder	4.04
232427	Y1-080 E	0.7332	Adder	0.86
232429	Y3-058 E	2.1745	Adder	2.56
232433	Z2-076 E	0.3745	Adder	0.44
232435	Z2-077 E	0.3745	Adder	0.44
232851	DUP-SFR1	1.8333	Adder	2.16
232907	VN8	13.9753	50/50	13.9753
232912	OH NUG1	2.8805	50/50	2.8805
232914	OH NUG3	2.8805	50/50	2.8805
232915	OH NUG4	2.8805	50/50	2.8805
232916	OH NUG5	2.8805	50/50	2.8805
232917	OH NUG6	2.8677	50/50	2.8677
232926	CRISFLD1	0.8065	50/50	0.8065
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2839	Adder	0.33
233923	AA1-102 C	4.5971	50/50	4.5971
917082	CHERRYDALE E	5.3058	Adder	6.24
918835	AA1-102 E	47.5416	50/50	47.5416
924681	AB2-120 C	16.2650	Adder	19.14
924682	AB2-120 E	26.5376	Adder	31.22
924781	AB2-130 C O1	7.8851	Adder	9.28
924782	AB2-130 E O1	12.8651	Adder	15.14
924831	AB2-136 C	7.8407	Adder	9.22
924832	AB2-136 E	8.3149	Adder	9.78
925151	AB2-172 C	5.2622	Adder	6.19
925152	AB2-172 E	8.5856	Adder	10.1
925261	AB2-180 C	4.9907	Adder	5.87
925262	AB2-180 E	2.1389	Adder	2.52
927031	AC1-190 C	9.9371	Adder	11.69
927032	AC1-190 E	4.2588	Adder	5.01
927191	AC1-213 C	1.1266	Adder	1.33
927192	AC1-213 E	0.7393	Adder	0.87
930201	AB1-056 C	8.6221	Adder	10.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930202	AB1-056 E	24.5542	Adder	28.89
932161	AC2-023 C	9.5242	Adder	11.2
932162	AC2-023 E	6.9365	Adder	8.16
938651	AE1-087 C	4.4313	Adder	5.21
938652	AE1-087 E	1.1078	Adder	1.3
938895	AE1-117 C	7.5876	Adder	8.93
938896	AE1-117 E	20.2335	Adder	23.8
939151	AE1-145	8.5383	Adder	10.05
942441	AE2-257 C	5.0706	Adder	5.97
942442	AE2-257 E	13.3679	Adder	15.73
943361	AF1-007 C	0.2544	Adder	0.3
943362	AF1-007 E	0.7230	Adder	0.85
945661	AF1-231 C	3.2560	Adder	3.83
945662	AF1-231 E	4.8840	Adder	5.75
945791	AF1-244	4.0896	50/50	4.0896
945931	AF1-258	1.1407	Adder	1.34
957611	AF2-055 C	14.9762	Adder	17.62
957612	AF2-055 E	6.4184	Adder	7.55
957661	AF2-060	3.8422	Adder	4.52
957671	AF2-061 O1	17.0765	Adder	20.09
959021	AF2-193 C	15.9321	Adder	18.74
959022	AF2-193 E	42.9766	Adder	50.56
959031	AF2-194 C	15.9321	Adder	18.74
959032	AF2-194 E	42.9766	Adder	50.56
959051	AF2-196 C	1.3829	Adder	1.63
959052	AF2-196 E	3.2267	Adder	3.8
959161	AF2-207 C O1	6.3909	Adder	7.52
959162	AF2-207 E O1	9.5863	Adder	11.28
959571	AF2-248 C	1.1220	Adder	1.32
959572	AF2-248 E	1.2540	Adder	1.48
959581	AF2-249 C	0.1980	Adder	0.23
959582	AF2-249 E	0.7920	Adder	0.93
959591	AF2-250 C	0.3630	Adder	0.43
959592	AF2-250 E	0.2805	Adder	0.33
960341	AF2-325 C	1.2689	Adder	1.49
960342	AF2-325 E	1.7523	Adder	2.06
960671	AF2-358 C O1	21.3170	Adder	25.08
960672	AF2-358 E O1	14.2113	Adder	16.72
960871	AF2-378 C	0.3438	Adder	0.4
960872	AF2-378 E	0.4769	Adder	0.56
960881	AF2-379 C	0.6719	Adder	0.79
960882	AF2-379 E	0.9259	Adder	1.09
960941	AF2-385 C	15.1530	Adder	17.83
960942	AF2-385 E	8.6226	Adder	10.14
961181	AF2-409 O1	57.8960	50/50	57.8960
962161	AG1-061 C O2	13.8401	Adder	30.72
962162	AG1-061 E O2	9.2267	Adder	20.48
963001	AG1-149	1.5336	50/50	1.5336
963011	AG1-150	9.0505	Adder	20.09
964551	AG1-318 C	0.0258	Adder	0.06
964552	AG1-318 E	0.0601	Adder	0.13
964962	AG1-360 E	4.4611	50/50	4.4611

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965321	AG1-397 C	0.6795	Adder	1.51
965322	AG1-397 E	0.9373	Adder	2.08
965611	AG1-429 C O2	7.9963	Adder	17.75
965612	AG1-429 E O2	5.3294	Adder	11.83
965821	AG1-450	4.6263	Adder	10.27
965921	AG1-461 C O2	2.2590	Adder	5.01
965922	AG1-461 E O2	1.2164	Adder	2.7
CALDERWOOD	CALDERWOOD	0.1208	Confirmed LTF	0.1208
NY	NY	0.1206	Confirmed LTF	0.1206
PRAIRIE	PRAIRIE	0.6277	Confirmed LTF	0.6277
O-066	O-066	1.3864	Confirmed LTF	1.3864
CHEOAH	CHEOAH	0.1216	Confirmed LTF	0.1216
COTTONWOOD	COTTONWOOD	0.5103	Confirmed LTF	0.5103
G-007	G-007	0.2079	Confirmed LTF	0.2079
HAMLET	HAMLET	0.1409	Confirmed LTF	0.1409
GIBSON	GIBSON	0.1327	Confirmed LTF	0.1327
BLUEG	BLUEG	0.4218	Confirmed LTF	0.4218
TRIMBLE	TRIMBLE	0.1352	Confirmed LTF	0.1352
CATAWBA	CATAWBA	0.0851	Confirmed LTF	0.0851

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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
174369393	200012	NEWFRDM	PSE&G	200028	WINDSOR	JCP&L	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	2983.0	111.72	112.21	DC	31.18

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

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

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

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

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

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

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

13.5.4 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
174369290	200051	ROCKSPGS	PJM	200065	PCHBTM2S	PECO	1	PJM500_PS_P2-3_NFRD5_910	breaker	2905.0	133.88	134.77	DC	55.7

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

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

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

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

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

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

13.5.5 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
174160967	200064	PCHBTM15	PECO	200004	CNASTONE	BGE	1	TS_P4_#T7_FUR RUN 500_CB 3	breaker	3620.0	120.49	121.08	DC	45.17

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 IMPACT
174160925	200066	PCHBTM1N	PECO	270072	FUR RUN_500	PJM	1	PJM_500_BG_P4_5_CNSTN_B	breaker	3609.0	128.5	129.04	DC	41.06

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

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

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

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

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

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

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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 %	ACID C	MW IMPACT
173967241	213490	CHICHST2	PECO	213496	CHIREACT_53	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	116.49	116.98	DC	8.88

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

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

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

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

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

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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
173967240	213496	CHIREACT_53	PECO	213972	TRAINER	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	116.49	116.98	DC	8.88

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

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

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

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

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

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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
173784066	213559	DELCOTA P	PECO	228401	MCKLTON	AE	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	725.0	130.75	131.31	DC	8.83

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

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

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

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

13.5.10 Index 10

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
174161036	213973	TRAINER2	PECO	213559	DELCOTAP	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	breaker	841.0	109.57	110.06	DC	8.88

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

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

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

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

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

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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
167808215	231000	CLAY_230	DP&L	214235	LINWOOD84	PECO	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	115.42	115.92	DC	10.17

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

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

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

13.5.12 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
167808246	231001	EDGE MR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* \$ DELCO \$ 220-85 \$ LC	single	804.0	114.49	114.93	DC	9.06

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

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

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

13.5.13 Index 13

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
175189059	231001	EDGEMR 5	DP&L	214236	LINWOOD85	PECO	1	DPL_P1_2_CKT 23015	single	804.0	113.72	114.16	DC	9.05

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

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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
174161004	231002	HARMONY	DP&L	231001	EDGEM R 5	DP&L	1	PECO_P4_PEACH215/ * \$ CHESCO \$ PECO_P4_PEACH215 \$ STBK	breaker	924.0	106.94	109.61	DC	24.91

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

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

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

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

13.5.15 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
165219942	231003	KEEN_230	DP&L	231002	HARMONY	DP&L	2	DPL_P7_1_DBL_3NC	tower	804.0	101.52	103.16	DC	13.14

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

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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
174160782	232002	CEDAR CK	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP11	breaker	678.0	155.24	158.16	DC	49.33

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

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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
173967075	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P4-2_DP11	breaker	790.0	150.93	153.15	DC	39.21

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

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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
174161009	232005	VIENNA	DP&L	232000	STEELE	DP&L	1	DPL_P4-2_DPIR235	breaker	550.0	108.85	113.05	DC	51.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	1.0628	50/50	1.0628
232405	W1-003 E	6.2523	50/50	6.2523
232406	W1-004 C	1.0628	50/50	1.0628
232407	W1-004 E	6.2523	50/50	6.2523
232408	W1-005 C	1.0628	50/50	1.0628
232409	W1-005 E	6.2523	50/50	6.2523
232410	W1-006 C	1.0628	50/50	1.0628
232411	W1-006 E	6.2523	50/50	6.2523
232412	X1-032 E	2.0394	50/50	2.0394
232418	X3-008 E	3.4342	Adder	4.04
232427	Y1-080 E	0.7332	Adder	0.86
232429	Y3-058 E	2.1745	Adder	2.56
232433	Z2-076 E	0.3745	Adder	0.44
232435	Z2-077 E	0.3745	Adder	0.44
232851	DUP-SFR1	1.8333	Adder	2.16
232907	VN8	13.9753	50/50	13.9753
232912	OH NUG1	2.8805	50/50	2.8805
232914	OH NUG3	2.8805	50/50	2.8805
232915	OH NUG4	2.8805	50/50	2.8805
232916	OH NUG5	2.8805	50/50	2.8805
232917	OH NUG6	2.8677	50/50	2.8677
232926	CRISFLD1	0.8065	50/50	0.8065
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2839	Adder	0.33
233923	AA1-102 C	4.5971	50/50	4.5971
917082	CHERRYDALE E	5.3058	Adder	6.24
918835	AA1-102 E	47.5416	50/50	47.5416
924681	AB2-120 C	16.2650	Adder	19.14
924682	AB2-120 E	26.5376	Adder	31.22
924781	AB2-130 C O1	7.8851	Adder	9.28
924782	AB2-130 E O1	12.8651	Adder	15.14
924831	AB2-136 C	7.8407	Adder	9.22
924832	AB2-136 E	8.3149	Adder	9.78
925151	AB2-172 C	5.2622	Adder	6.19
925152	AB2-172 E	8.5856	Adder	10.1
925261	AB2-180 C	4.9907	Adder	5.87
925262	AB2-180 E	2.1389	Adder	2.52
927031	AC1-190 C	9.9371	Adder	11.69
927032	AC1-190 E	4.2588	Adder	5.01
927191	AC1-213 C	1.1266	Adder	1.33
927192	AC1-213 E	0.7393	Adder	0.87
930201	AB1-056 C	8.6221	Adder	10.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930202	AB1-056 E	24.5542	Adder	28.89
932161	AC2-023 C	9.5242	Adder	11.2
932162	AC2-023 E	6.9365	Adder	8.16
938651	AE1-087 C	4.4313	Adder	5.21
938652	AE1-087 E	1.1078	Adder	1.3
938895	AE1-117 C	7.5876	Adder	8.93
938896	AE1-117 E	20.2335	Adder	23.8
939151	AE1-145	8.5383	Adder	10.05
942441	AE2-257 C	5.0706	Adder	5.97
942442	AE2-257 E	13.3679	Adder	15.73
943361	AF1-007 C	0.2544	Adder	0.3
943362	AF1-007 E	0.7230	Adder	0.85
945661	AF1-231 C	3.2560	Adder	3.83
945662	AF1-231 E	4.8840	Adder	5.75
945791	AF1-244	4.0896	50/50	4.0896
945931	AF1-258	1.1407	Adder	1.34
957611	AF2-055 C	14.9762	Adder	17.62
957612	AF2-055 E	6.4184	Adder	7.55
957661	AF2-060	3.8422	Adder	4.52
957671	AF2-061 O1	17.0765	Adder	20.09
959021	AF2-193 C	15.9321	Adder	18.74
959022	AF2-193 E	42.9766	Adder	50.56
959031	AF2-194 C	15.9321	Adder	18.74
959032	AF2-194 E	42.9766	Adder	50.56
959051	AF2-196 C	1.3829	Adder	1.63
959052	AF2-196 E	3.2267	Adder	3.8
959161	AF2-207 C O1	6.3909	Adder	7.52
959162	AF2-207 E O1	9.5863	Adder	11.28
959571	AF2-248 C	1.1220	Adder	1.32
959572	AF2-248 E	1.2540	Adder	1.48
959581	AF2-249 C	0.1980	Adder	0.23
959582	AF2-249 E	0.7920	Adder	0.93
959591	AF2-250 C	0.3630	Adder	0.43
959592	AF2-250 E	0.2805	Adder	0.33
960341	AF2-325 C	1.2689	Adder	1.49
960342	AF2-325 E	1.7523	Adder	2.06
960671	AF2-358 C O1	21.3170	Adder	25.08
960672	AF2-358 E O1	14.2113	Adder	16.72
960871	AF2-378 C	0.3438	Adder	0.4
960872	AF2-378 E	0.4769	Adder	0.56
960881	AF2-379 C	0.6719	Adder	0.79
960882	AF2-379 E	0.9259	Adder	1.09
960941	AF2-385 C	15.1530	Adder	17.83
960942	AF2-385 E	8.6226	Adder	10.14
961181	AF2-409 O1	57.8960	50/50	57.8960
962161	AG1-061 C O2	13.8401	Adder	30.72
962162	AG1-061 E O2	9.2267	Adder	20.48
963001	AG1-149	1.5336	50/50	1.5336
963011	AG1-150	9.0505	Adder	20.09
964551	AG1-318 C	0.0258	Adder	0.06
964552	AG1-318 E	0.0601	Adder	0.13
964962	AG1-360 E	4.4611	50/50	4.4611

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965321	AG1-397 C	0.6795	Adder	1.51
965322	AG1-397 E	0.9373	Adder	2.08
965611	AG1-429 C O2	7.9963	Adder	17.75
965612	AG1-429 E O2	5.3294	Adder	11.83
965821	AG1-450	4.6263	Adder	10.27
965921	AG1-461 C O2	2.2590	Adder	5.01
965922	AG1-461 E O2	1.2164	Adder	2.7
CALDERWOOD	CALDERWOOD	0.1208	Confirmed LTF	0.1208
NY	NY	0.1206	Confirmed LTF	0.1206
PRAIRIE	PRAIRIE	0.6277	Confirmed LTF	0.6277
O-066	O-066	1.3864	Confirmed LTF	1.3864
CHEOAH	CHEOAH	0.1216	Confirmed LTF	0.1216
COTTONWOOD	COTTONWOOD	0.5103	Confirmed LTF	0.5103
G-007	G-007	0.2079	Confirmed LTF	0.2079
HAMLET	HAMLET	0.1409	Confirmed LTF	0.1409
GIBSON	GIBSON	0.1327	Confirmed LTF	0.1327
BLUEG	BLUEG	0.4218	Confirmed LTF	0.4218
TRIMBLE	TRIMBLE	0.1352	Confirmed LTF	0.1352
CATAWBA	CATAWBA	0.0851	Confirmed LTF	0.0851

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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
174160888	232006	INDRIV 4	DP&L	232004	MILF_230	DP&L	1	DPL_P4-2_DP36	breaker	804.0	135.33	137.53	DC	40.75

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	5.0409	Adder	5.93
232407	W1-004 E	5.0409	Adder	5.93
232409	W1-005 E	5.0409	Adder	5.93
232411	W1-006 E	5.0409	Adder	5.93
232412	X1-032 E	1.5512	Adder	1.82
232418	X3-008 E	2.5966	Adder	3.05
232427	Y1-080 E	0.5286	Adder	0.62
232429	Y3-058 E	2.0730	Adder	2.44
232432	Z2-076 C	0.3522	50/50	0.3522
232433	Z2-076 E	1.1244	50/50	1.1244
232434	Z2-077 C	0.3522	50/50	0.3522
232435	Z2-077 E	1.1244	50/50	1.1244
232851	DUP-SFR1	2.6321	Adder	3.1
232904	IR4	41.6172	50/50	41.6172
232905	BAYVIEW1	0.9457	50/50	0.9457
232915	OH NUG4	2.7394	50/50	2.7394
232916	OH NUG5	2.7394	50/50	2.7394
232920	IR10	1.4617	50/50	1.4617
232921	TASLEY2G	1.8208	50/50	1.8208
233911	AB1-137 C (Withdrawn : 12/07/2020)	0.3865	50/50	0.3865
233912	AB1-137 E (Withdrawn : 12/07/2020)	1.0498	50/50	1.0498
917081	CHERRYDALE C	0.5750	50/50	0.5750
917082	CHERRYDALE E	5.9459	50/50	5.9459
918835	AA1-102 E	35.6413	Adder	41.93
924681	AB2-120 C	18.3095	50/50	18.3095
924682	AB2-120 E	29.8735	50/50	29.8735
924781	AB2-130 C O1	9.9406	Adder	11.69
924782	AB2-130 E O1	16.2189	Adder	19.08
924831	AB2-136 C	5.7633	Adder	6.78
924832	AB2-136 E	6.1119	Adder	7.19
925151	AB2-172 C	3.9787	Adder	4.68
925152	AB2-172 E	6.4916	Adder	7.64
925261	AB2-180 C	4.7577	Adder	5.6
925262	AB2-180 E	2.0390	Adder	2.4
927031	AC1-190 C	7.4723	Adder	8.79
927032	AC1-190 E	3.2024	Adder	3.77
927191	AC1-213 C	1.1578	Adder	1.36
927192	AC1-213 E	0.7598	Adder	0.89
930201	AB1-056 C	41.2424	50/50	41.2424
930202	AB1-056 E	117.4512	50/50	117.4512

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
932161	AC2-023 C	8.6194	Adder	10.14
932162	AC2-023 E	6.2775	Adder	7.39
938651	AE1-087 C	3.3505	Adder	3.94
938652	AE1-087 E	0.8376	Adder	0.99
938895	AE1-117 C	27.8462	50/50	27.8462
938896	AE1-117 E	74.2566	50/50	74.2566
939151	AE1-145	9.6250	50/50	9.6250
942441	AE2-257 C	18.9506	50/50	18.9506
942442	AE2-257 E	49.9606	50/50	49.9606
943361	AF1-007 C	1.2168	50/50	1.2168
943362	AF1-007 E	3.4582	50/50	3.4582
945661	AF1-231 C	3.0965	Adder	3.64
945662	AF1-231 E	4.6447	Adder	5.46
945791	AF1-244	3.0659	Adder	3.61
945931	AF1-258	1.0875	Adder	1.28
957611	AF2-055 C	16.7829	50/50	16.7829
957612	AF2-055 E	7.1927	50/50	7.1927
957661	AF2-060	4.3312	50/50	4.3312
957671	AF2-061 O1	19.2500	50/50	19.2500
959021	AF2-193 C	76.2088	50/50	76.2088
959022	AF2-193 E	205.5716	50/50	205.5716
959031	AF2-194 C	76.2088	50/50	76.2088
959032	AF2-194 E	205.5716	50/50	205.5716
959051	AF2-196 C	5.1683	50/50	5.1683
959052	AF2-196 E	12.0595	50/50	12.0595
959161	AF2-207 C O1	6.8364	Adder	8.04
959162	AF2-207 E O1	10.2546	Adder	12.06
959571	AF2-248 C	1.1816	Adder	1.39
959572	AF2-248 E	1.3206	Adder	1.55
959581	AF2-249 C	0.2085	Adder	0.25
959582	AF2-249 E	0.8341	Adder	0.98
959591	AF2-250 C	0.3823	Adder	0.45
959592	AF2-250 E	0.2954	Adder	0.35
960341	AF2-325 C	0.9415	Adder	1.11
960342	AF2-325 E	1.3002	Adder	1.53
960671	AF2-358 C O1	15.3199	Adder	18.02
960672	AF2-358 E O1	10.2133	Adder	12.02
960871	AF2-378 C	0.2538	Adder	0.3
960872	AF2-378 E	0.3521	Adder	0.41
960881	AF2-379 C	0.6041	Adder	0.71
960882	AF2-379 E	0.8324	Adder	0.98
960941	AF2-385 C	16.2093	Adder	19.07
960942	AF2-385 E	9.2237	Adder	10.85
961181	AF2-409 O1	25.5042	Adder	30.0
962161	AG1-061 C O2	11.0160	Adder	24.45
962162	AG1-061 E O2	7.3440	Adder	16.3
963001	AG1-149	0.6094	Adder	1.35
963011	AG1-150	19.2500	50/50	19.2500
964551	AG1-318 C	0.1735	50/50	0.1735
964552	AG1-318 E	0.4047	50/50	0.4047
964962	AG1-360 E	1.7984	Adder	3.99
965321	AG1-397 C	0.8737	Adder	1.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965322	AG1-397 E	1.2052	Adder	2.68
965611	AG1-429 C O2	16.9075	50/50	16.9075
965612	AG1-429 E O2	11.2685	50/50	11.2685
965821	AG1-450	3.3355	Adder	7.4
965921	AG1-461 C O2	3.5013	Adder	7.77
965922	AG1-461 E O2	1.8853	Adder	4.18
CALDERWOOD	CALDERWOOD	0.1491	Confirmed LTF	0.1491
NY	NY	0.1786	Confirmed LTF	0.1786
PRAIRIE	PRAIRIE	0.7749	Confirmed LTF	0.7749
O-066	O-066	2.2478	Confirmed LTF	2.2478
SIGE	SIGE	0.0036	Confirmed LTF	0.0036
CHEOAH	CHEOAH	0.1501	Confirmed LTF	0.1501
COTTONWOOD	COTTONWOOD	0.6300	Confirmed LTF	0.6300
G-007	G-007	0.3580	Confirmed LTF	0.3580
HAMLET	HAMLET	0.1727	Confirmed LTF	0.1727
GIBSON	GIBSON	0.1638	Confirmed LTF	0.1638
BLUEG	BLUEG	0.5208	Confirmed LTF	0.5208
TRIMBLE	TRIMBLE	0.1670	Confirmed LTF	0.1670
CATAWBA	CATAWBA	0.1050	Confirmed LTF	0.1050

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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
17416099 1	23201 2	HOPE CREE K	PJM	20002 9	HOP E CRK	PSE& G	1	PJM500_DPL_P4_2_RED LION -HOPE AT51	break er	1117. 0	107.42	108.21	DC	26.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
200062	SALEM G3	-7.7722	Adder	-9.14
227842	MARINGEN	-0.9098	Adder	-1.07
228343	QUINTN#1 (Deactivation : 26/04/2020)	-0.1874	Adder	-0.22
231903	GEN4	1.7955	Adder	2.11
231904	DC1 NUG	4.6519	Adder	5.47
231905	DC2 NUG	4.6519	Adder	5.47
232405	W1-003 E	2.6489	Adder	3.12
232407	W1-004 E	2.6489	Adder	3.12
232409	W1-005 E	2.6489	Adder	3.12
232411	W1-006 E	2.6489	Adder	3.12
232412	X1-032 E	0.8495	Adder	1.0
232418	X3-008 E	2.4719	Adder	2.91
232423	X3-066 E	0.5163	Adder	0.61
232425	Y1-079 E	1.1094	Adder	1.31
232427	Y1-080 E	0.4279	Adder	0.5
232429	Y3-058 E	1.2860	Adder	1.51
232433	Z2-076 E	0.4417	Adder	0.52
232435	Z2-077 E	0.4417	Adder	0.52
232616	GEN FOOD	0.7155	50/50	0.7155
232813	VAUGHN	0.1243	50/50	0.1243
232851	DUP-SFR1	2.2035	Adder	2.59
232899	W1-062	2.2524	50/50	2.2524
232900	DEMECSMY	2.2064	50/50	2.2064
232901	NORTHST	2.1653	50/50	2.1653
232922	MR3 (Deactivation : 01/06/2021)	30.4327	50/50	30.4327
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.3979	Adder	0.47
233916	AB1-141 E	1.0860	Adder	1.28
233919	AB1-142 E	1.0860	Adder	1.28
233920	W3-032A-CTG1	9.0849	50/50	9.0849
233921	W3-032A-STG1	5.4698	50/50	5.4698
233931	AB2-179 C	5.6916	Adder	6.7
917082	CHERRYDALE E	2.6500	Adder	3.12
918835	AA1-102 E	19.7230	Adder	23.2
919831	AA2-069 (Suspended)	134.5604	50/50	134.5604
923921	AB2-032 C	2.3444	Adder	2.76
923922	AB2-032 E	1.1032	Adder	1.3
923951	AB2-036 C	6.2258	Adder	7.32
923952	AB2-036 E	10.1860	Adder	11.98
923961	AB2-037 C	13.6786	Adder	16.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923962	AB2-037 E	22.3458	Adder	26.29
924051	AB2-049 C	-0.1257	Adder	-0.15
924681	AB2-120 C	8.1254	Adder	9.56
924682	AB2-120 E	13.2572	Adder	15.6
924781	AB2-130 C O1	6.9865	Adder	8.22
924782	AB2-130 E O1	11.3990	Adder	13.41
924801	AB2-133 C O1	4.3020	Adder	5.06
924802	AB2-133 E O1	5.4562	Adder	6.42
924821	AB2-135 C	5.5816	Adder	6.57
924822	AB2-135 E	6.3657	Adder	7.49
924831	AB2-136 C	5.0033	Adder	5.89
924832	AB2-136 E	5.3060	Adder	6.24
924971	AB2-153 C	1.3101	Adder	1.54
924972	AB2-153 E	2.1375	Adder	2.51
925151	AB2-172 C	3.7877	Adder	4.46
925152	AB2-172 E	6.1799	Adder	7.27
925254	AB2-179 E	1.8573	Adder	2.19
925261	AB2-180 C	2.9516	Adder	3.47
925262	AB2-180 E	1.2650	Adder	1.49
925271	AB2-185 C	2.5051	Adder	2.95
925272	AB2-185 E	1.0736	Adder	1.26
926131	AC1-091 C	2.2857	50/50	2.2857
926132	AC1-091 E	3.7485	50/50	3.7485
926141	AC1-092 C	2.2857	50/50	2.2857
926142	AC1-092 E	3.7485	50/50	3.7485
926151	AC1-093 C	2.1638	50/50	2.1638
926152	AC1-093 E	3.5657	50/50	3.5657
926161	AC1-094 C	1.8286	50/50	1.8286
926162	AC1-094 E	3.0171	50/50	3.0171
927031	AC1-190 C	6.9921	Adder	8.23
927032	AC1-190 E	2.9966	Adder	3.53
927191	AC1-213 C	0.6800	Adder	0.8
927192	AC1-213 E	0.4462	Adder	0.52
930201	AB1-056 C	14.3030	Adder	16.83
930202	AB1-056 E	40.7325	Adder	47.92
930722	AB1-116 E	-0.0839	Adder	-0.1
930732	AB1-119 E	-0.0811	Adder	-0.1
931261	AB1-176 C	0.2670	Adder	0.31
931262	AB1-176 E	0.4403	Adder	0.52
932161	AC2-023 C	5.5576	Adder	6.54
932162	AC2-023 E	4.0476	Adder	4.76
933631	AC2-185 C	4.6324	50/50	4.6324
933632	AC2-185 E	7.5580	50/50	7.5580
933641	AC2-186 C	5.0458	50/50	5.0458
933642	AC2-186 E	8.2327	50/50	8.2327
936451	AD2-059 C	0.0281	Adder	0.03
936452	AD2-059 E	0.0880	Adder	0.1
936501	AD2-065 C	-0.1181	Adder	-0.14
936611	AD2-076 C O1	3.2380	Adder	3.81
936612	AD2-076 E O1	5.2831	Adder	6.22
938423	AE1-061 BAT	0.7146	Merchant Transmission	0.7146
938433	AE1-062 BAT	2.5940	Merchant Transmission	2.5940

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938651	AE1-087 C	3.1896	Adder	3.75
938652	AE1-087 E	0.7974	Adder	0.94
938814	AE1-107 C	4.4993	Adder	5.29
938815	AE1-107 E	3.2075	Adder	3.77
938873	AE1-115 BAT	2.5244	Merchant Transmission	2.5244
938895	AE1-117 C	10.6084	Adder	12.48
938896	AE1-117 E	28.2891	Adder	33.28
939151	AE1-145	4.2763	Adder	5.03
939303	AE1-161 BAT	6.3935	Merchant Transmission	6.3935
939821	AE1-218 C O1	-0.0849	Adder	-0.1
941021	AE2-093 C	3.0669	Adder	3.61
941022	AE2-093 E	5.0040	Adder	5.89
941181	AE2-112 C	1.1234	Adder	1.32
941182	AE2-112 E	1.8329	Adder	2.16
942441	AE2-257 C	7.2995	Adder	8.59
942442	AE2-257 E	19.2440	Adder	22.64
943361	AF1-007 C	0.4220	Adder	0.5
943362	AF1-007 E	1.1993	Adder	1.41
943441	AF1-015 C	1.1556	Adder	1.36
943442	AF1-015 E	1.5958	Adder	1.88
943651	AF1-036 C	1.4608	Adder	1.72
943652	AF1-036 E	2.0173	Adder	2.37
944953	AF1-160 BAT	2.5940	Merchant Transmission	2.5940
945661	AF1-231 C	1.6240	Adder	1.91
945662	AF1-231 E	2.4360	Adder	2.87
945733	AF1-238 BAT	18.1063	Merchant Transmission	18.1063
945743	AF1-239 BAT	4.2603	Merchant Transmission	4.2603
945791	AF1-244	1.6966	Adder	2.0
945931	AF1-258	0.6746	Adder	0.79
945941	AF1-259	0.1415	Adder	0.17
957223	AF2-016 BAT	41.2650	Merchant Transmission	41.2650
957253	AF2-019 BAT	5.8052	Merchant Transmission	5.8052
957263	AF2-020 BAT	2.7266	Merchant Transmission	2.7266
957293	AF2-023 BAT	5.3635	Merchant Transmission	5.3635
957313	AF2-025 BAT	2.7450	Merchant Transmission	2.7450
957611	AF2-055 C	7.4797	Adder	8.8
957612	AF2-055 E	3.2056	Adder	3.77
957661	AF2-060	1.9244	Adder	2.26
957671	AF2-061 O1	8.5527	Adder	10.06
959021	AF2-193 C	26.4295	Adder	31.09
959022	AF2-193 E	71.2930	Adder	83.87
959031	AF2-194 C	26.4295	Adder	31.09
959032	AF2-194 E	71.2930	Adder	83.87
959051	AF2-196 C	1.9908	Adder	2.34
959052	AF2-196 E	4.6451	Adder	5.46
959161	AF2-207 C O1	4.2984	Adder	5.06
959162	AF2-207 E O1	6.4476	Adder	7.59
959571	AF2-248 C	0.7240	Adder	0.85
959572	AF2-248 E	0.8092	Adder	0.95
959581	AF2-249 C	0.1278	Adder	0.15
959582	AF2-249 E	0.5111	Adder	0.6
959591	AF2-250 C	0.2342	Adder	0.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959592	AF2-250 E	0.1810	Adder	0.21
960221	AF2-313 C	2.2456	Adder	2.64
960222	AF2-313 E	1.2731	Adder	1.5
960341	AF2-325 C	0.8437	Adder	0.99
960342	AF2-325 E	1.1652	Adder	1.37
960671	AF2-358 C O1	12.2482	Adder	14.41
960672	AF2-358 E O1	8.1654	Adder	9.61
960871	AF2-378 C	0.2235	Adder	0.26
960872	AF2-378 E	0.3101	Adder	0.36
960881	AF2-379 C	0.3472	Adder	0.41
960882	AF2-379 E	0.4784	Adder	0.56
960941	AF2-385 C	10.1916	Adder	11.99
960942	AF2-385 E	5.7994	Adder	6.82
960961	AF2-387 C O1	12.0506	Adder	14.18
960962	AF2-387 E O1	6.0434	Adder	7.11
961181	AF2-409 O1	20.3039	Adder	23.89
962161	AG1-061 C O2	7.2362	Adder	16.06
962162	AG1-061 E O2	4.8241	Adder	10.71
962261	AG1-072	4.7949	Adder	10.64
962302	AG1-079 E	0.1625	Adder	0.36
962381	AG1-087 C O2	31.2827	50/50	31.2827
962382	AG1-087 E O2	84.3845	50/50	84.3845
962612	AG1-110 BAT	2.7496	Merchant Transmission	2.7496
962622	AG1-111 BAT	1.3379	Merchant Transmission	1.3379
963001	AG1-149	0.3372	Adder	0.75
963011	AG1-150	4.5329	Adder	10.06
964003	AG1-254 BAT	1.2643	Merchant Transmission	1.2643
964013	AG1-255 BAT	2.0397	Merchant Transmission	2.0397
964551	AG1-318 C	0.0351	Adder	0.08
964552	AG1-318 E	0.0819	Adder	0.18
964962	AG1-360 E	0.9849	Adder	2.19
965321	AG1-397 C	0.4764	Adder	1.06
965322	AG1-397 E	0.6572	Adder	1.46
965611	AG1-429 C O2	3.9937	Adder	8.87
965612	AG1-429 E O2	2.6617	Adder	5.91
965821	AG1-450	2.6998	Adder	5.99
965921	AG1-461 C O2	2.2490	Adder	4.99
965922	AG1-461 E O2	1.2110	Adder	2.69
965951	AG1-464 C O2	5.3114	50/50	5.3114
965952	AG1-464 E O2	7.9671	50/50	7.9671
966281	AG1-497 C O2	25.0622	50/50	25.0622
966282	AG1-497 E O2	10.7410	50/50	10.7410
966601	AG1-529 C	13.0993	50/50	13.0993
966602	AG1-529 E	6.9917	50/50	6.9917
WEC	WEC	0.2788	Confirmed LTF	0.2788
LGEE	LGEE	0.5630	Confirmed LTF	0.5630
CPL	CPL	0.7419	Confirmed LTF	0.7419
CBM-W2	CBM-W2	8.2880	Confirmed LTF	8.2880
NY	NY	2.0738	Confirmed LTF	2.0738
TVA	TVA	1.3286	Confirmed LTF	1.3286
O-066	O-066	39.0340	Confirmed LTF	39.0340
SIGE	SIGE	0.7033	Confirmed LTF	0.7033

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	10.8994	Confirmed LTF	10.8994
CBM-S1	CBM-S1	0.3568	Confirmed LTF	0.3568
G-007	G-007	7.3185	Confirmed LTF	7.3185
MEC	MEC	1.4285	Confirmed LTF	1.4285
LAGN	LAGN	1.6537	Confirmed LTF	1.6537
CBM-W1	CBM-W1	12.2254	Confirmed LTF	12.2254

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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
174160906	232013	SILVER RUN	PJM	231004	RL_230	DP&L	1	DPL_P4-2_DP11	breaker	678.0	106.05	107.97	DC	28.94

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	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	ACID C	MW IMPACT
166659844	232100	CHURCH	DP&L	232107	TOWNSEND	DP&L	1	DPL_P7_1_DBL_1NCB_FS_A	tower	348.0	170.9	177.36	DC	23.3

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

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

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

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

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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
166659854	232106	MIDLTNTP	DP&L	232104	MT PLSNT	DP&L	1	DPL_P7_1_DBL_1NCB_FSA	tower	348.0	151.17	157.64	DC	23.3

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
166659839	232107	TOWNSEND	DP&L	232106	MIDLTNT P	DP&L	1	DPL_P7_1_DBL_1NCB_FS A	tower	348.0	176.63	183.1	DC	23.3

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
174160916	232114	SHARNGTN	DP&L	232112	FELTON	DP&L	1	DPL_P4-2_DP11	breaker	242.0	104.68	110.24	DC	13.59

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

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

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

13.5.26 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
174160980	232116	VIENN138	DP&L	232005	VIENNA	DP&L	1	DPL_P4-2_DPIR235	breaker	530.0	112.99	117.36	DC	51.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232404	W1-003 C	1.0628	50/50	1.0628
232405	W1-003 E	6.2523	50/50	6.2523
232406	W1-004 C	1.0628	50/50	1.0628
232407	W1-004 E	6.2523	50/50	6.2523
232408	W1-005 C	1.0628	50/50	1.0628
232409	W1-005 E	6.2523	50/50	6.2523
232410	W1-006 C	1.0628	50/50	1.0628
232411	W1-006 E	6.2523	50/50	6.2523
232412	X1-032 E	2.0394	50/50	2.0394
232418	X3-008 E	3.4342	Adder	4.04
232427	Y1-080 E	0.7332	Adder	0.86
232429	Y3-058 E	2.1745	Adder	2.56
232433	Z2-076 E	0.3745	Adder	0.44
232435	Z2-077 E	0.3745	Adder	0.44
232851	DUP-SFR1	1.8333	Adder	2.16
232907	VN8	13.9753	50/50	13.9753
232912	OH NUG1	2.8805	50/50	2.8805
232914	OH NUG3	2.8805	50/50	2.8805
232915	OH NUG4	2.8805	50/50	2.8805
232916	OH NUG5	2.8805	50/50	2.8805
232917	OH NUG6	2.8677	50/50	2.8677
232926	CRISFLD1	0.8065	50/50	0.8065
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.2839	Adder	0.33
233923	AA1-102 C	4.5971	50/50	4.5971
917082	CHERRYDALE E	5.3058	Adder	6.24
918835	AA1-102 E	47.5416	50/50	47.5416
924681	AB2-120 C	16.2650	Adder	19.14
924682	AB2-120 E	26.5376	Adder	31.22
924781	AB2-130 C O1	7.8851	Adder	9.28
924782	AB2-130 E O1	12.8651	Adder	15.14
924831	AB2-136 C	7.8407	Adder	9.22
924832	AB2-136 E	8.3149	Adder	9.78
925151	AB2-172 C	5.2622	Adder	6.19
925152	AB2-172 E	8.5856	Adder	10.1
925261	AB2-180 C	4.9907	Adder	5.87
925262	AB2-180 E	2.1389	Adder	2.52
927031	AC1-190 C	9.9371	Adder	11.69
927032	AC1-190 E	4.2588	Adder	5.01
927191	AC1-213 C	1.1266	Adder	1.33
927192	AC1-213 E	0.7393	Adder	0.87
930201	AB1-056 C	8.6221	Adder	10.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
930202	AB1-056 E	24.5542	Adder	28.89
932161	AC2-023 C	9.5242	Adder	11.2
932162	AC2-023 E	6.9365	Adder	8.16
938651	AE1-087 C	4.4313	Adder	5.21
938652	AE1-087 E	1.1078	Adder	1.3
938895	AE1-117 C	7.5876	Adder	8.93
938896	AE1-117 E	20.2335	Adder	23.8
939151	AE1-145	8.5383	Adder	10.05
942441	AE2-257 C	5.0706	Adder	5.97
942442	AE2-257 E	13.3679	Adder	15.73
943361	AF1-007 C	0.2544	Adder	0.3
943362	AF1-007 E	0.7230	Adder	0.85
945661	AF1-231 C	3.2560	Adder	3.83
945662	AF1-231 E	4.8840	Adder	5.75
945791	AF1-244	4.0896	50/50	4.0896
945931	AF1-258	1.1407	Adder	1.34
957611	AF2-055 C	14.9762	Adder	17.62
957612	AF2-055 E	6.4184	Adder	7.55
957661	AF2-060	3.8422	Adder	4.52
957671	AF2-061 O1	17.0765	Adder	20.09
959021	AF2-193 C	15.9321	Adder	18.74
959022	AF2-193 E	42.9766	Adder	50.56
959031	AF2-194 C	15.9321	Adder	18.74
959032	AF2-194 E	42.9766	Adder	50.56
959051	AF2-196 C	1.3829	Adder	1.63
959052	AF2-196 E	3.2267	Adder	3.8
959161	AF2-207 C O1	6.3909	Adder	7.52
959162	AF2-207 E O1	9.5863	Adder	11.28
959571	AF2-248 C	1.1220	Adder	1.32
959572	AF2-248 E	1.2540	Adder	1.48
959581	AF2-249 C	0.1980	Adder	0.23
959582	AF2-249 E	0.7920	Adder	0.93
959591	AF2-250 C	0.3630	Adder	0.43
959592	AF2-250 E	0.2805	Adder	0.33
960341	AF2-325 C	1.2689	Adder	1.49
960342	AF2-325 E	1.7523	Adder	2.06
960671	AF2-358 C O1	21.3170	Adder	25.08
960672	AF2-358 E O1	14.2113	Adder	16.72
960871	AF2-378 C	0.3438	Adder	0.4
960872	AF2-378 E	0.4769	Adder	0.56
960881	AF2-379 C	0.6719	Adder	0.79
960882	AF2-379 E	0.9259	Adder	1.09
960941	AF2-385 C	15.1530	Adder	17.83
960942	AF2-385 E	8.6226	Adder	10.14
961181	AF2-409 O1	57.8960	50/50	57.8960
962161	AG1-061 C O2	13.8401	Adder	30.72
962162	AG1-061 E O2	9.2267	Adder	20.48
963001	AG1-149	1.5336	50/50	1.5336
963011	AG1-150	9.0505	Adder	20.09
964551	AG1-318 C	0.0258	Adder	0.06
964552	AG1-318 E	0.0601	Adder	0.13
964962	AG1-360 E	4.4611	50/50	4.4611

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965321	AG1-397 C	0.6795	Adder	1.51
965322	AG1-397 E	0.9373	Adder	2.08
965611	AG1-429 C O2	7.9963	Adder	17.75
965612	AG1-429 E O2	5.3294	Adder	11.83
965821	AG1-450	4.6263	Adder	10.27
965921	AG1-461 C O2	2.2590	Adder	5.01
965922	AG1-461 E O2	1.2164	Adder	2.7
CALDERWOOD	CALDERWOOD	0.1208	Confirmed LTF	0.1208
NY	NY	0.1206	Confirmed LTF	0.1206
PRAIRIE	PRAIRIE	0.6277	Confirmed LTF	0.6277
O-066	O-066	1.3864	Confirmed LTF	1.3864
CHEOAH	CHEOAH	0.1216	Confirmed LTF	0.1216
COTTONWOOD	COTTONWOOD	0.5103	Confirmed LTF	0.5103
G-007	G-007	0.2079	Confirmed LTF	0.2079
HAMLET	HAMLET	0.1409	Confirmed LTF	0.1409
GIBSON	GIBSON	0.1327	Confirmed LTF	0.1327
BLUEG	BLUEG	0.4218	Confirmed LTF	0.4218
TRIMBLE	TRIMBLE	0.1352	Confirmed LTF	0.1352
CATAWBA	CATAWBA	0.0851	Confirmed LTF	0.0851

13.5.27 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
174160809	232215	KENT	DP&L	232812	NMEREDTH	DP&L	1	DPL_P4-2_DP11	breaker	93.0	147.76	150.64	DC	5.93

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

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

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

13.5.28 Index 28

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174160860	232230	TRAP ALT	DP&L	232232	TRAPPETP	DP&L	1	DPL_P4-2_DP11	breaker	173.0	129.59	137.23	DC	13.38

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

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

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

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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
174160858	232232	TRAPPETP	DP&L	232227	EASTN_69	DP&L	1	DPL_P4-2_DP11	breaker	173.0	129.88	137.78	DC	13.85

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

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

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

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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
174160822	232233	PRESTON	DP&L	232821	TANYARD	DP&L	1	DPL_P4-2_DP11	breaker	173.0	144.16	152.06	DC	13.85

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

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

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

13.5.31 Index 31

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
173967123	232234	TODD	DP&L	232233	PRESTON	DP&L	1	DPL_P4-2_DP12	breaker	93.0	142.29	147.54	DC	10.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.8498	Adder	1.0
232407	W1-004 E	0.8498	Adder	1.0
232409	W1-005 E	0.8498	Adder	1.0
232411	W1-006 E	0.8498	Adder	1.0
232412	X1-032 E	0.2905	Adder	0.34
232417	X3-008 C	0.4496	50/50	0.4496
232418	X3-008 E	4.6496	50/50	4.6496
232426	Y1-080 FULL	0.0472	50/50	0.0472
232427	Y1-080 E	0.4909	50/50	0.4909
232428	Y3-058 C	0.1099	50/50	0.1099
232429	Y3-058 E	0.7453	50/50	0.7453
232433	Z2-076 E	0.0950	Adder	0.11
232435	Z2-077 E	0.0950	Adder	0.11
232851	DUP-SFR1	0.5554	Adder	0.65
232907	VN8	2.8151	50/50	2.8151
232919	VN10	0.3451	50/50	0.3451
293670	O-025 C	0.0968	50/50	0.0968
917082	CHERRYDALE E	0.8474	Adder	1.0
918835	AA1-102 E	6.8457	Adder	8.05
924681	AB2-120 C	2.5782	Adder	3.03
924682	AB2-120 E	4.2065	Adder	4.95
924781	AB2-130 C O1	2.4303	Adder	2.86
924782	AB2-130 E O1	3.9653	Adder	4.67
924831	AB2-136 C	7.3978	50/50	7.3978
924832	AB2-136 E	7.8453	50/50	7.8453
925151	AB2-172 C	7.1244	50/50	7.1244
925152	AB2-172 E	11.6241	50/50	11.6241
925261	AB2-180 C	1.7105	50/50	1.7105
925262	AB2-180 E	0.7331	50/50	0.7331
927031	AC1-190 C	12.6472	50/50	12.6472
927032	AC1-190 E	5.4203	50/50	5.4203
927191	AC1-213 C	0.3274	50/50	0.3274
927192	AC1-213 E	0.2149	50/50	0.2149
932161	AC2-023 C	3.5873	50/50	3.5873
932162	AC2-023 E	2.6126	50/50	2.6126
938651	AE1-087 C	5.9995	50/50	5.9995
938652	AE1-087 E	1.4999	50/50	1.4999
939151	AE1-145	1.3615	Adder	1.6
945661	AF1-231 C	0.5193	Adder	0.61
945662	AF1-231 E	0.7790	Adder	0.92
945791	AF1-244	0.5889	Adder	0.69
945931	AF1-258	0.3910	50/50	0.3910

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957611	AF2-055 C	2.3919	Adder	2.81
957612	AF2-055 E	1.0251	Adder	1.21
957661	AF2-060	0.6127	Adder	0.72
957671	AF2-061 O1	2.7231	Adder	3.2
959161	AF2-207 C O1	1.6199	Adder	1.91
959162	AF2-207 E O1	2.4298	Adder	2.86
959571	AF2-248 C	0.2815	Adder	0.33
959572	AF2-248 E	0.3147	Adder	0.37
959581	AF2-249 C	0.0497	Adder	0.06
959582	AF2-249 E	0.1987	Adder	0.23
959591	AF2-250 C	0.0911	Adder	0.11
959592	AF2-250 E	0.0704	Adder	0.08
960341	AF2-325 C	1.3681	50/50	1.3681
960342	AF2-325 E	1.8892	50/50	1.8892
960671	AF2-358 C O1	13.3068	50/50	13.3068
960672	AF2-358 E O1	8.8712	50/50	8.8712
960871	AF2-378 C	0.3451	50/50	0.3451
960872	AF2-378 E	0.4788	50/50	0.4788
960881	AF2-379 C	0.1307	Adder	0.15
960882	AF2-379 E	0.1801	Adder	0.21
960941	AF2-385 C	3.8408	Adder	4.52
960942	AF2-385 E	2.1855	Adder	2.57
961181	AF2-409 O1	11.6620	50/50	11.6620
962161	AG1-061 C O2	2.9275	Adder	6.5
962162	AG1-061 E O2	1.9517	Adder	4.33
963001	AG1-149	0.1170	Adder	0.26
963011	AG1-150	1.4432	Adder	3.2
964962	AG1-360 E	0.3368	Adder	0.75
965321	AG1-397 C	0.1686	Adder	0.37
965322	AG1-397 E	0.2326	Adder	0.52
965611	AG1-429 C O2	1.2771	Adder	2.83
965612	AG1-429 E O2	0.8512	Adder	1.89
965821	AG1-450	5.8442	50/50	5.8442
965921	AG1-461 C O2	0.6885	Adder	1.53
965922	AG1-461 E O2	0.3707	Adder	0.82
CALDERWOOD	CALDERWOOD	0.0214	Confirmed LTF	0.0214
NY	NY	0.0188	Confirmed LTF	0.0188
PRAIRIE	PRAIRIE	0.1111	Confirmed LTF	0.1111
O-066	O-066	0.1952	Confirmed LTF	0.1952
CHEOAH	CHEOAH	0.0215	Confirmed LTF	0.0215
COTTONWOOD	COTTONWOOD	0.0903	Confirmed LTF	0.0903
G-007	G-007	0.0273	Confirmed LTF	0.0273
HAMLET	HAMLET	0.0248	Confirmed LTF	0.0248
GIBSON	GIBSON	0.0235	Confirmed LTF	0.0235
BLUEG	BLUEG	0.0746	Confirmed LTF	0.0746
TRIMBLE	TRIMBLE	0.0239	Confirmed LTF	0.0239
CATAWBA	CATAWBA	0.0150	Confirmed LTF	0.0150

13.5.32 Index 32

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174160864	232241	VIENN_69	DP&L	232234	TODD	DP&L	1	DPL_P4-2_DP11	breaker	143.0	139.84	147.81	DC	11.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.9498	Adder	1.12
232407	W1-004 E	0.9498	Adder	1.12
232409	W1-005 E	0.9498	Adder	1.12
232411	W1-006 E	0.9498	Adder	1.12
232412	X1-032 E	0.3190	Adder	0.38
232428	Y3-058 C	0.1099	50/50	0.1099
232429	Y3-058 E	0.7452	50/50	0.7452
232433	Z2-076 E	0.1207	Adder	0.14
232435	Z2-077 E	0.1207	Adder	0.14
232851	DUP-SFR1	0.6449	Adder	0.76
232907	VN8	2.8467	50/50	2.8467
232919	VN10	0.3176	50/50	0.3176
233912	AB1-137 E (Withdrawn : 12/07/2020)	0.0985	Adder	0.12
293670	O-025 C	0.1010	50/50	0.1010
917082	CHERRYDALE E	0.9480	Adder	1.12
918835	AA1-102 E	7.4884	Adder	8.81
924681	AB2-120 C	2.8909	Adder	3.4
924682	AB2-120 E	4.7167	Adder	5.55
924781	AB2-130 C O1	2.6085	Adder	3.07
924782	AB2-130 E O1	4.2560	Adder	5.01
925261	AB2-180 C	1.7102	50/50	1.7102
925262	AB2-180 E	0.7330	50/50	0.7330
927191	AC1-213 C	0.3415	50/50	0.3415
927192	AC1-213 E	0.2241	50/50	0.2241
930201	AB1-056 C	3.2806	Adder	3.86
930202	AB1-056 E	9.3425	Adder	10.99
932161	AC2-023 C	3.5089	50/50	3.5089
932162	AC2-023 E	2.5555	50/50	2.5555
938653	AE1-087 BAT	10.0746	50/50	10.0746
938895	AE1-117 C	2.6345	Adder	3.1
938896	AE1-117 E	7.0252	Adder	8.26
939151	AE1-145	1.5249	Adder	1.79
942441	AE2-257 C	1.7932	Adder	2.11
942442	AE2-257 E	4.7276	Adder	5.56
943361	AF1-007 C	0.0968	Adder	0.11
943362	AF1-007 E	0.2751	Adder	0.32
945661	AF1-231 C	0.5809	Adder	0.68
945662	AF1-231 E	0.8714	Adder	1.03
945791	AF1-244	0.6442	Adder	0.76
945931	AF1-258	0.3909	50/50	0.3909
957611	AF2-055 C	2.6757	Adder	3.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957612	AF2-055 E	1.1467	Adder	1.35
957661	AF2-060	0.6862	Adder	0.81
957671	AF2-061 O1	3.0498	Adder	3.59
959021	AF2-193 C	6.0619	Adder	7.13
959022	AF2-193 E	16.3519	Adder	19.24
959031	AF2-194 C	6.0619	Adder	7.13
959032	AF2-194 E	16.3519	Adder	19.24
959051	AF2-196 C	0.4891	Adder	0.58
959052	AF2-196 E	1.1412	Adder	1.34
959161	AF2-207 C O1	2.0231	50/50	2.0231
959162	AF2-207 E O1	3.0346	50/50	3.0346
959571	AF2-248 C	0.3492	50/50	0.3492
959572	AF2-248 E	0.3903	50/50	0.3903
959581	AF2-249 C	0.0616	50/50	0.0616
959582	AF2-249 E	0.2465	50/50	0.2465
959591	AF2-250 C	0.1130	50/50	0.1130
959592	AF2-250 E	0.0873	50/50	0.0873
960671	AF2-358 C O1	2.9738	Adder	3.5
960672	AF2-358 E O1	1.9825	Adder	2.33
960881	AF2-379 C	0.1643	50/50	0.1643
960882	AF2-379 E	0.2265	50/50	0.2265
960941	AF2-385 C	4.7967	50/50	4.7967
960942	AF2-385 E	2.7295	50/50	2.7295
961181	AF2-409 O1	11.7930	50/50	11.7930
962161	AG1-061 C O2	6.8387	50/50	6.8387
962162	AG1-061 E O2	4.5591	50/50	4.5591
963001	AG1-149	0.1280	Adder	0.28
963011	AG1-150	1.6164	Adder	3.59
964551	AG1-318 C	0.0088	Adder	0.02
964552	AG1-318 E	0.0206	Adder	0.05
964962	AG1-360 E	0.3698	Adder	0.82
965321	AG1-397 C	0.1825	Adder	0.41
965322	AG1-397 E	0.2517	Adder	0.56
965611	AG1-429 C O2	1.4287	Adder	3.17
965612	AG1-429 E O2	0.9522	Adder	2.11
965921	AG1-461 C O2	0.7681	Adder	1.7
965922	AG1-461 E O2	0.4136	Adder	0.92
CALDERWOOD	CALDERWOOD	0.0268	Confirmed LTF	0.0268
NY	NY	0.0188	Confirmed LTF	0.0188
PRAIRIE	PRAIRIE	0.1395	Confirmed LTF	0.1395
O-066	O-066	0.1615	Confirmed LTF	0.1615
CHEOAH	CHEOAH	0.0270	Confirmed LTF	0.0270
COTTONWOOD	COTTONWOOD	0.1134	Confirmed LTF	0.1134
G-007	G-007	0.0189	Confirmed LTF	0.0189
HAMLET	HAMLET	0.0318	Confirmed LTF	0.0318
GIBSON	GIBSON	0.0295	Confirmed LTF	0.0295
BLUEG	BLUEG	0.0937	Confirmed LTF	0.0937
TRIMBLE	TRIMBLE	0.0301	Confirmed LTF	0.0301
CATAWBA	CATAWBA	0.0189	Confirmed LTF	0.0189

13.5.33 Index 33

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
173784159	232250	NELSN_69	DP&L	232828	SHORT 1	DP&L	1	DPL_P4-2_DPIR8060	breaker	112.0	101.79	113.34	DC	12.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.6001	Adder	0.71
232407	W1-004 E	0.6001	Adder	0.71
232409	W1-005 E	0.6001	Adder	0.71
232411	W1-006 E	0.6001	Adder	0.71
232412	X1-032 E	0.2073	Adder	0.24
232428	Y3-058 C	0.1078	50/50	0.1078
232429	Y3-058 E	0.7311	50/50	0.7311
232851	DUP-SFR1	-1.5690	Adder	-1.85
293670	O-025 C	0.1420	50/50	0.1420
917082	CHERRYDALE E	0.6020	Adder	0.71
918835	AA1-102 E	4.8979	Adder	5.76
924681	AB2-120 C	1.8117	Adder	2.13
924682	AB2-120 E	2.9559	Adder	3.48
925261	AB2-180 C	1.6780	50/50	1.6780
925262	AB2-180 E	0.7192	50/50	0.7192
927191	AC1-213 C	0.4800	50/50	0.4800
927192	AC1-213 E	0.3150	50/50	0.3150
932161	AC2-023 C	2.2487	Adder	2.65
932162	AC2-023 E	1.6377	Adder	1.93
939151	AE1-145	0.9751	Adder	1.15
945661	AF1-231 C	0.3662	Adder	0.43
945662	AF1-231 E	0.5493	Adder	0.65
945791	AF1-244	0.4213	Adder	0.5
945931	AF1-258	0.3836	50/50	0.3836
957611	AF2-055 C	1.6993	Adder	2.0
957612	AF2-055 E	0.7283	Adder	0.86
957661	AF2-060	0.4388	Adder	0.52
957671	AF2-061 O1	1.9502	Adder	2.29
959161	AF2-207 C O1	6.7256	50/50	6.7256
959162	AF2-207 E O1	10.0884	50/50	10.0884
959571	AF2-248 C	0.9027	50/50	0.9027
959572	AF2-248 E	1.0089	50/50	1.0089
959581	AF2-249 C	0.1593	50/50	0.1593
959582	AF2-249 E	0.6372	50/50	0.6372
959591	AF2-250 C	0.2920	50/50	0.2920
959592	AF2-250 E	0.2257	50/50	0.2257
960881	AF2-379 C	0.1287	Adder	0.15
960882	AF2-379 E	0.1774	Adder	0.21
960941	AF2-385 C	15.9466	50/50	15.9466
960942	AF2-385 E	9.0742	50/50	9.0742
961181	AF2-409 O1	5.6066	Adder	6.6
962161	AG1-061 C O2	7.7666	50/50	7.7666

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962162	AG1-061 E O2	5.1778	50/50	5.1778
963001	AG1-149	0.0837	Adder	0.19
963011	AG1-150	1.0336	Adder	2.29
964962	AG1-360 E	0.2404	Adder	0.53
965321	AG1-397 C	0.4739	50/50	0.4739
965322	AG1-397 E	0.6537	50/50	0.6537
965611	AG1-429 C O2	0.9073	Adder	2.01
965612	AG1-429 E O2	0.6047	Adder	1.34
CALDERWOOD	CALDERWOOD	0.0080	Confirmed LTF	0.0080
NY	NY	0.0116	Confirmed LTF	0.0116
PRAIRIE	PRAIRIE	0.0413	Confirmed LTF	0.0413
O-066	O-066	0.1548	Confirmed LTF	0.1548
SIGE	SIGE	0.0007	Confirmed LTF	0.0007
CHEOAH	CHEOAH	0.0080	Confirmed LTF	0.0080
COTTONWOOD	COTTONWOOD	0.0336	Confirmed LTF	0.0336
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0092	Confirmed LTF	0.0092
GIBSON	GIBSON	0.0087	Confirmed LTF	0.0087
BLUEG	BLUEG	0.0278	Confirmed LTF	0.0278
TRIMBLE	TRIMBLE	0.0089	Confirmed LTF	0.0089
CATAWBA	CATAWBA	0.0056	Confirmed LTF	0.0056

13.5.34 Index 34

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
173967126	232812	NMEREDTH	DP&L	924820	AB2-135 TAP	DP&L	1	DPL_P4-2_DP11	breaker	93.0	126.37	129.25	DC	5.93

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

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

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

13.5.35 Index 35

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174160839	232820	TALBOT	DP&L	232230	TRAP ALT	DP&L	1	DPL_P4-2_DP11	breaker	173.0	138.61	146.51	DC	13.85

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

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

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

13.5.36 Index 36

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174160832	232821	TANYARD	DP&L	232820	TALBOT	DP&L	1	DPL_P4-2_DP11	breaker	173.0	141.09	149.0	DC	13.85

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

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

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

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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
173784094	232828	SHORT 1	DP&L	232249	LAUREL	DP&L	1	DPL_P4-2_DPIR8060	breaker	93.0	111.08	124.99	DC	12.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
232405	W1-003 E	0.6001	Adder	0.71
232407	W1-004 E	0.6001	Adder	0.71
232409	W1-005 E	0.6001	Adder	0.71
232411	W1-006 E	0.6001	Adder	0.71
232412	X1-032 E	0.2073	Adder	0.24
232428	Y3-058 C	0.1078	50/50	0.1078
232429	Y3-058 E	0.7311	50/50	0.7311
232851	DUP-SFR1	-1.5690	Adder	-1.85
293670	O-025 C	0.1420	50/50	0.1420
917082	CHERRYDALE E	0.6020	Adder	0.71
918835	AA1-102 E	4.8979	Adder	5.76
924681	AB2-120 C	1.8117	Adder	2.13
924682	AB2-120 E	2.9559	Adder	3.48
925261	AB2-180 C	1.6780	50/50	1.6780
925262	AB2-180 E	0.7192	50/50	0.7192
927191	AC1-213 C	0.4800	50/50	0.4800
927192	AC1-213 E	0.3150	50/50	0.3150
932161	AC2-023 C	2.2487	Adder	2.65
932162	AC2-023 E	1.6377	Adder	1.93
939151	AE1-145	0.9751	Adder	1.15
945661	AF1-231 C	0.3662	Adder	0.43
945662	AF1-231 E	0.5493	Adder	0.65
945791	AF1-244	0.4213	Adder	0.5
945931	AF1-258	0.3836	50/50	0.3836
957611	AF2-055 C	1.6993	Adder	2.0
957612	AF2-055 E	0.7283	Adder	0.86
957661	AF2-060	0.4388	Adder	0.52
957671	AF2-061 O1	1.9502	Adder	2.29
959161	AF2-207 C O1	6.7256	50/50	6.7256
959162	AF2-207 E O1	10.0884	50/50	10.0884
959571	AF2-248 C	0.9027	50/50	0.9027
959572	AF2-248 E	1.0089	50/50	1.0089
959581	AF2-249 C	0.1593	50/50	0.1593
959582	AF2-249 E	0.6372	50/50	0.6372
959591	AF2-250 C	0.2920	50/50	0.2920
959592	AF2-250 E	0.2257	50/50	0.2257
960881	AF2-379 C	0.1287	Adder	0.15
960882	AF2-379 E	0.1774	Adder	0.21
960941	AF2-385 C	15.9466	50/50	15.9466
960942	AF2-385 E	9.0742	50/50	9.0742
961181	AF2-409 O1	5.6066	Adder	6.6
962161	AG1-061 C O2	7.7666	50/50	7.7666

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962162	AG1-061 E O2	5.1778	50/50	5.1778
963001	AG1-149	0.0837	Adder	0.19
963011	AG1-150	1.0336	Adder	2.29
964962	AG1-360 E	0.2404	Adder	0.53
965321	AG1-397 C	0.4739	50/50	0.4739
965322	AG1-397 E	0.6537	50/50	0.6537
965611	AG1-429 C O2	0.9073	Adder	2.01
965612	AG1-429 E O2	0.6047	Adder	1.34
CALDERWOOD	CALDERWOOD	0.0080	Confirmed LTF	0.0080
NY	NY	0.0116	Confirmed LTF	0.0116
PRAIRIE	PRAIRIE	0.0413	Confirmed LTF	0.0413
O-066	O-066	0.1548	Confirmed LTF	0.1548
SIGE	SIGE	0.0007	Confirmed LTF	0.0007
CHEOAH	CHEOAH	0.0080	Confirmed LTF	0.0080
COTTONWOOD	COTTONWOOD	0.0336	Confirmed LTF	0.0336
G-007	G-007	0.0263	Confirmed LTF	0.0263
HAMLET	HAMLET	0.0092	Confirmed LTF	0.0092
GIBSON	GIBSON	0.0087	Confirmed LTF	0.0087
BLUEG	BLUEG	0.0278	Confirmed LTF	0.0278
TRIMBLE	TRIMBLE	0.0089	Confirmed LTF	0.0089
CATAWBA	CATAWBA	0.0056	Confirmed LTF	0.0056

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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
174160939	923960	AB2-037 TAP	DP&L	231003	KEEN_230	DP&L	2	DPL_P4-2_DP8	breaker	727.0	108.61	113.47	DC	35.74

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

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

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

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

13.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
DPL_P1_2_23085 &13710	CONTINGENCY 'DPL_P1_2_23085 &13710' / 540 OPEN BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 / 232000 STEELE 230 232005 VIENNA 230 1 OPEN BRANCH FROM BUS 232116 TO BUS 232005 CKT 1 / 232116 VIENN138 138 232005 VIENNA 230 1 OPEN BRANCH FROM BUS 232116 TO BUS 232117 CKT 1 / 232116 VIENN138 138 232117 VIENNA 8 138 1 END
TS_P1-2_#T6	CONTINGENCY 'TS_P1-2_#T6' / 1771 OPEN BRANCH FROM BUS 200066 TO BUS 270072 CKT 1 / 200066 PCHBTM1N 500 270072 FUR RUN_500 500 1 END
DPL_P4-2_DP8	CONTINGENCY 'DPL_P4-2_DP8' / 1736 OPEN BRANCH FROM BUS 231003 TO BUS 232000 CKT 1 / 231003 KEEN_230 230 232000 STEELE 230 1 OPEN BRANCH FROM BUS 232103 TO BUS 232000 CKT 1 / 232103 STEEL138 138 232000 STEELE 230 1 END
Base Case	
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

Contingency Name	Contingency Definition
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
DPL_P1_2_CKT 23002	CONTINGENCY 'DPL_P1_2_CKT 23002' / 303 OPEN BRANCH FROM BUS 232006 TO BUS 232007 CKT 1 / 232006 INDIV 4 230 232007 PINEY GR 230 1 OPEN BRANCH FROM BUS 232128 TO BUS 232007 CKT 1 / 232128 PINEY138 138 232007 PINEY GR 230 1 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
DPL_P4-2_DPIR8060	CONTINGENCY 'DPL_P4-2_DPIR8060' / 410 OPEN BRANCH FROM BUS 232119 TO BUS 232121 CKT 1 / 232119 NELSON 138 232121 INDRV2&3 138 1 OPEN BRANCH FROM BUS 232121 TO BUS 232805 CKT 1 / 232121 INDRV2&3 138 232805 ROBINSON 138 1 END
PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L	CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ PECO_P1-2_5014 \$ L' / 1691 OPEN BRANCH FROM BUS 200051 TO BUS 200065 CKT 1 / 200051 ROCKSPGS 500 200065 PCHBTM2S 500 1 END
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_B47_DPL1	CONTINGENCY 'DPL_P7_1_B47_DPL1' DISCONNECT BRANCH FROM BUS 231003 TO BUS 231004 CKT 1 /* KEENEY REDLION 230 230 DISCONNECT BRANCH FROM BUS 231004 TO BUS 231800 CKT 1 /* B47 B47 230 230 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
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
PECO_P2-2_CON230BD/* \$ CHESCO \$ PECO_P2-2_CON230BD \$ B	CONTINGENCY 'PECO_P2-2_CON230BD/* \$ CHESCO \$ PECO_P2-2_CON230BD \$ B' DISCONNECT BUS 213517 /* CONOW7 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213514 /* CONOW1-2 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213515 /* CONOW3-4 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213516 /* CONOW5-6 13.80 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213964 /* SUSQ 12 35.00 \$ CHESCO \$ PECO_P2- 2_CON230BD \$ B DISCONNECT BUS 213519 /* CONOWG01 230.00 \$ CHESCO \$ PECO_P2-2_CON230BD \$ B END
PECO_P2-2_NEWL230B/* \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B	CONTINGENCY 'PECO_P2-2_NEWL230B/* \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B' DISCONNECT BUS 213834 /* NEWLNVIL 230.00 \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B DISCONNECT BUS 213835 /* NEWLNVIL 138.00 \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B DISCONNECT BUS 214179 /* NEWLIN4A TER 13.80 \$ CHESCO \$ PECO_P2-2_NEWL230B \$ B DISCONNECT BUS 213753 /* LKNSCTV2 138.00 \$ CHESCO \$ PECO_P2- 2_NEWL230B \$ B END
PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L	CONTINGENCY 'PECO_P1-2_5012/* \$ CHESCO \$ PECO_P1-2_5012 \$ L' / 1740 OPEN BRANCH FROM BUS 200004 TO BUS 200064 CKT 1 / 200004 CNASTONE 500 200064 PCHBTM1S 500 1 END

Contingency Name	Contingency Definition
DPL_P4-2_DP36	CONTINGENCY 'DPL_P4-2_DP36' / 254 OPEN BRANCH FROM BUS 232001 TO BUS 232006 CKT 1 / 232001 COOLSPRS 230 232006 INDIV 4 230 1 OPEN BRANCH FROM BUS 232001 TO BUS 232927 CKT 2 / 232001 COOLSPRS 230 232927 BENNETT_230 230 2 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
PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK	CONTINGENCY 'PECO_P4_CHICH045/* \$ DELCO \$ PECO_P4_CHICH045 \$ STBK' / 269 OPEN BRANCH FROM BUS 213489 TO BUS 213490 CKT Z / 213489 CHICHST1 230 213490 CHICHST2 230 Z OPEN BRANCH FROM BUS 213489 TO BUS 213588 CKT 1 / 213489 CHICHST1 230 213588 EDDYSTN4 230 1 OPEN BRANCH FROM BUS 213489 TO BUS 213627 CKT 1 / 213489 CHICHST1 230 213627 FOULK8 230 1 OPEN BRANCH FROM BUS 213489 TO BUS 214221 CKT 1 / 213489 CHICHST1 230 214221 CHIREACT_43 230 1 OPEN BRANCH FROM BUS 213488 TO BUS 213489 CKT 3 / 213488 CHICH3-5 13.8 213489 CHICHST1 230 3 OPEN THREEWINDING AT BUS 213489 TO BUS 214203 TO BUS 214154 CKT 9A/ OPEN THREEWINDING AT BUS 213489 TO BUS 214203 TO BUS 214204 CKT 9B/ OPEN BRANCH FROM BUS 213624 TO BUS 213627 CKT Z / 213624 FOULK 230 213627 FOULK8 230 Z OPEN BRANCH FROM BUS 213626 TO BUS 213627 CKT 2 / 213626 FOULK 2 13.8 213627 FOULK8 230 2 END
DPL_P4-2_DP18_FSA	CONTINGENCY 'DPL_P4-2_DP18_FSA' / 1426 OPEN BRANCH FROM BUS 231002 TO BUS 231003 CKT 1 / 231002 HARMONY 230 231003 KEEN_230 230 1 OPEN BRANCH FROM BUS 231003 TO BUS 923960 CKT 2 / 231003 KEEN_230 230 923960 AB2-037 TAP 230 2 END
DPL_P1_2_CKT 23015	CONTINGENCY 'DPL_P1_2_CKT 23015' / 723 OPEN BRANCH FROM BUS 231000 TO BUS 231001 CKT 1 / 231000 CLAY_230 230 231001 EDGEMR 5 230 1 END
DPL_P1_2_CKT 23034	CONTINGENCY 'DPL_P1_2_CKT 23034' / 1105 OPEN BRANCH FROM BUS 232004 TO BUS 232006 CKT 1 / 232004 MILF_230 230 232006 INDIV 4 230 1 END

Contingency Name	Contingency Definition
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
DPL_P1_2_CKT 23070	CONTINGENCY 'DPL_P1_2_CKT 23070' / 1174 OPEN BRANCH FROM BUS 232001 TO BUS 232006 CKT 1 / 232001 COOLSPRS 230 232006 INDIV 4 230 1 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_REDION-HOPE AT51	CONTINGENCY 'PJM500_DPL_P4_2_REDION-HOPE AT51' / 2848 OPEN BRANCH FROM BUS 200027 TO BUS 200029 CKT 1 / 200027 REDLION 500 200029 HOPE CRK 500 1 OPEN BRANCH FROM BUS 231004 TO BUS 200027 CKT 2 / 231004 RL_230 230 200027 REDLION 500 2 END
PJM500_DPL_P4_2_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
DPL_P4-2_DPIR235	CONTINGENCY 'DPL_P4-2_DPIR235' / 1015 OPEN BRANCH FROM BUS 232006 TO BUS 232007 CKT 1 / 232006 INDIV 4 230 232007 PINEY GR 230 1 OPEN BRANCH FROM BUS 232128 TO BUS 232007 CKT 1 / 232128 PINEY138 138 232007 PINEY GR 230 1 OPEN BRANCH FROM BUS 232004 TO BUS 232006 CKT 1 / 232004 MILF_230 230 232006 INDIV 4 230 1 END

14 Affected Systems

None