



**Generation Interconnection
Feasibility Study Report
for
Queue Project AF2-024
MICKLETON 69 KV
20 MW Capacity / 50 MW Energy**

July 2020

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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 AEC.

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

3 General

The Interconnection Customer (IC), has proposed a Storage generating facility located in Gloucester County, New Jersey. The installed facilities will have a total capability of 50 MW with 20 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 01, 2021. This study does not imply a TO commitment to this in-service date.

Queue Number	AF2-024
Project Name	MICKLETON 69 KV
State	New Jersey
County	Gloucester
Transmission Owner	AEC
MFO	50

MWE	50
MWC	20
Fuel	Storage
Basecase Study Year	2023

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

4 Point of Interconnection

AF2-024 will interconnect with the AEC transmission system at the Mickleton 69 kV substation.

5 Cost Summary

The AF2-024 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$400,000
Total System Network Upgrade Costs	\$387,775,536
Total Costs	\$388,175,536

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

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

6 Transmission Owner Scope of Work

Substation Interconnection Estimate

Scope: Install 69 kV terminal and bus tie breaker for AF2-024.

Developer responsible for land purchase and site development for substation expansion if required, price is not included.

Required Relaying and Communications

Mickleton substation:

New protection relays are required for the new terminal and bus tie breaker.

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

Description	Total Cost
Total Physical Interconnection Costs	\$400,000

7 Schedule

Work estimated to take approximately 12-24 months.

8 Transmission Owner Analysis

None

9 Interconnection Customer Requirements

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 ACE'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.

ACE Interconnection Customer Scope of Direct Connection Work Requirements:

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

Special Operating Requirements

1. ACE 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 ACE.
2. ACE 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 ACE.

Additional Interconnection Customer Responsibilities:

1. An Interconnection Customer entering the New Services Queue on or after October 1, 2012 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.
2. The Interconnection Customer may be required to install and/or pay for metering as necessary to properly track real time output of the facility as well as installing metering which shall be used for billing purposes. See Section 8 of Appendix 2 to the Interconnection Service Agreement as well as Section 4 of PJM Manual 14D for additional information.
3. The Interconnection Customer seeking to interconnect a wind generation facility shall maintain meteorological data facilities as well as provide that meteorological data which is required per item 5.IV of Schedule H to the Interconnection Service Agreement.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Interconnected Transmission Owner Requirements

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

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

A three phase 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 ACE's specifications. The secondary wiring connections at the instrument transformers will be completed by the Interconnection Customer and inspected by ACE, while the connections at the metering enclosure will be completed by ACE. The metering control cable and meter cabinets will be supplied by ACE 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. ACE 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. ACE 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 ACE

within approximately three feet of the ACE metering position to facilitate remote interrogation and data collection. It is the Interconnection Customer's responsibility to send the data that PJM and ACE require directly to PJM. The Interconnection Customer will grant permission for PJM to send ACE the following telemetry that the Interconnection Customer sends to PJM: real time MW, MVAR, volts, amperes, generator status, and interval MWH and MVARH.

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

11 Summer Peak - Load Flow Analysis

The Queue Project AF2-024 was evaluated as a 50 MW (Capacity 20.0 MW) injection at the Mickleton 69 kV substation in the AEC area. Project AF2-024 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-024 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 PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
99841534	219108	CUTHBERT	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P1-2_U-2299_LT	single	771.0	99.99	100.52	DC	4.52

11.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
99842322	213559	DELCOTA P	230.0	PECO	213973	TRAINER 2	230.0	PECO	1	PS_P7-1_V2274+P2242_LT	tower	841.0	99.37	100.76	DC	13.35
99842314	228402	MONROE	230.0	AE	219100	NEWFRDM	230.0	PSE&G	1	PS_P7-1_V2274+P2242_LT	tower	804.0	99.54	101.92	DC	18.82

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	FRO M BUS#	FROM BUS	kV	FRO M BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Ratin g MVA	PRE PROJEC T LOADIN G %	POST PROJEC T LOADIN G %	AC/D C	MW IMPA CT
99840918	213922	RICHMOND	230.0	PECO	214012	WANEETA3	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	bus	1180.0	147.89	148.42	DC	13.8
99841139	213922	RICHMOND	230.0	PECO	214012	WANEETA3	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	1180.0	147.87	148.4	DC	13.8
99841140	213922	RICHMOND	230.0	PECO	214012	WANEETA3	230.0	PECO	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	1180.0	135.4	135.96	DC	14.55
99840943	214010	WANEETA2	230.0	PECO	213817	N PHILA	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	bus	621.0	133.05	133.56	DC	6.93
99841190	214010	WANEETA2	230.0	PECO	213817	N PHILA	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	621.0	133.02	133.53	DC	6.93
99840938	214206	RICHRE29	230.0	PECO	213922	RICHMOND	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	bus	1336.0	141.28	142.15	DC	15.11
99841175	214206	RICHRE29	230.0	PECO	213922	RICHMOND	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	1336.0	141.28	142.15	DC	15.11
99841176	214206	RICHRE29	230.0	PECO	213922	RICHMOND	230.0	PECO	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	1336.0	133.52	134.44	DC	15.95
99841211	219110	GLOUCST R	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P2-3_CUTB_1-4_LT	breaker	771.0	128.23	129.52	DC	10.4
99841212	219110	GLOUCST R	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P2-3_CUTB_3-4_LT	breaker	771.0	126.47	127.73	DC	10.25
99841213	219110	GLOUCST R	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P2-3_CUTB_1-2_LT	breaker	771.0	123.65	124.89	DC	10.04
99841214	219110	GLOUCST R	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P2-3_CUTB_2-3_LT	breaker	771.0	121.71	122.93	DC	9.88
99840933	219125	CAMDEN	230.0	PSE&G	214206	RICHRE29	230.0	PECO	1	PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B	bus	1336.0	141.3	142.17	DC	15.11
99841170	219125	CAMDEN	230.0	PSE&G	214206	RICHRE29	230.0	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	1336.0	141.29	142.16	DC	15.11
99841171	219125	CAMDEN	230.0	PSE&G	214206	RICHRE29	230.0	PECO	1	PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK	breaker	1336.0	133.54	134.46	DC	15.95
99842297	228401	MCKLTON	230.0	AE	213559	DELCOTAP	230.0	PECO	1	PS_P7-1_V2274+P2242_LT	tower	725.0	107.27	109.13	DC	13.37
99842298	228401	MCKLTON	230.0	AE	213559	DELCOTAP	230.0	PECO	1	AE_P7-1_W2275_O2241	tower	725.0	100.97	102.84	DC	13.39

11.4 Potential Congestion due to Local Energy Deliverability

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

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection

Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
99841435	213922	RICHMOND	230.0	PECO	214012	WANEETA3	230.0	PECO	1	Base Case	operation	760.0	164.38	165.11	DC	12.23
99841436	213922	RICHMOND	230.0	PECO	214012	WANEETA3	230.0	PECO	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	1180.0	132.66	133.22	DC	14.55
99841558	214206	RICHRE29	230.0	PECO	213922	RICHMOND	230.0	PECO	1	Base Case	operation	1075.0	131.55	132.52	DC	13.53
99841559	214206	RICHRE29	230.0	PECO	213922	RICHMOND	230.0	PECO	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	1336.0	131.33	132.25	DC	15.95
99841530	219108	CUTHBERT	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P1-2_U-2299_LT	operation	771.0	133.12	134.52	DC	11.3
99841532	219108	CUTHBERT	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	Base Case	operation	500.0	120.07	121.36	DC	6.73
99841504	219110	GLOUCSTR	230.0	PSE&G	219755	CUTHBERT_4	230.0	PSE&G	1	PS_P1-2_C-2308	operation	758.0	137.34	138.67	DC	10.56
99841507	219110	GLOUCSTR	230.0	PSE&G	219755	CUTHBERT_4	230.0	PSE&G	1	Base Case	operation	550.0	122.76	123.95	DC	6.85
99841537	219110	GLOUCSTR	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	Base Case	operation	500.0	133.17	134.5	DC	7.0
99841538	219110	GLOUCSTR	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P1-2_D-2282	operation	771.0	117.08	118.24	DC	9.41
99841568	219110	GLOUCSTR	230.0	PSE&G	219753	CUTHBERT_2	230.0	PSE&G	1	PS_P1-2_D-2282	operation	771.0	128.03	129.26	DC	10.01
99841570	219110	GLOUCSTR	230.0	PSE&G	219753	CUTHBERT_2	230.0	PSE&G	1	Base Case	operation	500.0	118.11	119.25	DC	5.99
99841553	219125	CAMDEN	230.0	PSE&G	214206	RICHRE29	230.0	PECO	1	Base Case	operation	1075.0	131.58	132.55	DC	13.53
99841554	219125	CAMDEN	230.0	PSE&G	214206	RICHRE29	230.0	PECO	1	PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L	operation	1336.0	131.34	132.26	DC	15.95
99841574	219754	CUTHBERT_3	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	PS_P1-2_Z-2305_LT	operation	792.0	126.4	127.73	DC	11.03
99841576	219754	CUTHBERT_3	230.0	PSE&G	219125	CAMDEN	230.0	PSE&G	1	Base Case	operation	504.0	108.38	109.31	DC	6.11

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
99841139,9984 1140,99840918	4	RICHMOND 230.0 kV - WANEETA3 230.0 kV Ckt 1	<p>pe010 (1678) : Add a second pair of underground cables in parallel with the existing underground portion of the Richmond - Waneeta 230 kV line (Does not include permitting) Project Type : FAC Cost : \$19,000,000 Time Estimate : 84.0 Months</p> <p>pe011 (1679) : Rebuild the aerial portion of the Richmond-Waneeta 230 kV line with bundled Pecos conductors (Does not include permitting) Project Type : FAC Cost : \$15,855,000 Time Estimate : 84.0 Months</p> <p>pe012 (1680) : Replace 3 circuit breakers on Richmond-Waneeta line Project Type : FAC Cost : \$1,129,000 Time Estimate : 36.0 Months</p> <p>pe013 (1681) : Replace 7 disconnect switches on Richmond-Waneeta line Project Type : FAC Cost : \$1,448,000 Time Estimate : 36.0 Months</p> <p>pe014 (1682) : Replace 10 pieces of station cable on Richmond-Waneeta line Project Type : FAC Cost : \$454,000 Time Estimate : 36.0 Months</p>	\$37,886,000

<p>99840933,9984 1171,99841170</p>	<p>8</p>	<p>CAMDEN 230.0 kV - RICHRE29 230.0 kV Ckt 1</p>	<p><u>PECO Upgrades:</u></p> <p>pe002 (1672) : Replace 1 piece of station cable in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$45,000 Time Estimate : 24.0 Months</p> <p>pe003 (1673) : Replace reactor in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$2,254,000 Time Estimate : 36.0 Months</p> <p>pe004 (1674) : Replace 2 circuit breakers in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$752,000 Time Estimate : 36.0 Months</p> <p>pe005 (1675) : Replace 6 disconnect switches in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$1,241,000 Time Estimate : 36.0 Months</p> <p>pe006 (1676) : Replace 8 pieces of station cable in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$363,000 Time Estimate : 36.0 Months</p> <p>pe007 (1677) : Reconductor PECO portion of line using 'Pecos' conductor on this bifurcated line (conductors run on parallel towers and remain tied together as they are today, which remains a 6-wire line) and also rebuild the Richmond 230 kV substation ring bus to increase bus rating (Does not include permitting or ROW acquisition). Cost & Ratings for PECO portion of tie line only. Project Type : FAC Cost : \$15,653,000 Time Estimate : 36.0 Months</p> <p><u>PSEG Upgrades:</u></p> <p>r_PS_I006a_CamRch (1940) : Wreck and Rebuild (PSEG Portion). Upgrade Camden 230kV terminal equipment to achieve a SER of 1891MVA Project Type : FAC Cost : \$72,008,213 Time Estimate : 45.0 Months</p> <p>r_PS_I006b_CamRch (1941) : Wreck and Rebuild (PSEG Portion). Upgrade Camden 230kV terminal equipment to achieve a SER of 1992MVA Project Type : FAC Cost : \$72,956,636 Time Estimate : 45.0 Months</p>	<p>\$93,264,636</p>
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99842322	2	DELCOTAP 230.0 kV - TRAINER2 230.0 kV Ckt 1	pe022 (1687) : Rebuild 0.82 miles of 230 kV line from Trainer to Delco Tap with 1590 kcmil 54/19 ACSR Project Type : FAC Cost : \$4,000,000 Time Estimate : 16.0 Months	\$4,000,000
99840943,9984 1190	5	WANEETA2 230.0 kV - N PHILA 230.0 kV Ckt 1	pe016 (1683) : Reconductor the North Philadelphia-Waneeta 230 kV line with Pecos conductor (Does not include permitting) Project Type : FAC Cost : \$6,335,000 Time Estimate : 36.0 Months pe017 (1684) : Replace 1 disconnect switch on Waneeta- N. Phila line Project Type : FAC Cost : \$207,000 Time Estimate : 24.0 Months pe018 (1685) : Replace 6 pieces of station cable on Waneeta- N. Phila line Project Type : FAC Cost : \$272,000 Time Estimate : 36.0 Months pe019 (1686) : Replace 2 disconnect switches on Waneeta- N. Phila line Project Type : FAC Cost : \$414,000 Time Estimate : 36.0 Months	\$7,228,000
99841534	1	CUTHBERT 230.0 kV - CAMDEN 230.0 kV Ckt 1	r_PS_I022b_BvrCam: Expand Beaver Brook 230kV to accommodate new cable. Construct new U/G Cable from Beaver Brook 230kV to Camden 230kV. Project Type : CON Cost : \$269,682,900 Time Estimate : 45 Months	\$269,682,900
99842297,9984 2298	9	MCKLTON 230.0 kV - DELCOTAP 230.0 kV Ckt 1	as2301r0001_ae2i (56) : To mitigate the (ACE)Mickleton to Delco Tap 230 kV line (from bus 228401 to bus 213559 ckt 1) overload, it will require various terminal reinforcements at Mickleton. Project Type : FAC Cost : \$200,000 Time Estimate : 12-32 Months	\$200,000
99841211,9984 1212,99841213, 99841214	7	GLOUCSTR 230.0 kV - CAMDEN 230.0 kV Ckt 1	r_PS_I022b_BvrCam (1958): Expand Beaver Brook 230kV to accommodate new cable. Construct new U/G Cable from Beaver Brook 230kV to Camden 230kV. Project Type : CON Cost : \$269,682,900 Time Estimate : 45 Months	\$269,682,900

99842314	3	MONROE 230.0 kV - NEWFRDM 230.0 kV Ckt 1	<p>at2305r0001 (132) : To mitigate the (ACE) Monroe to New Freedom 230 kV line (from bus 228402 to bus 219100 ckt 1) overload, it will require increasing the emergency rating of the Monroe to New Freedom 230 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor.</p> <p>Project Type : FAC Cost : \$13,400,000 Time Estimate : 30-60 Months</p>	\$13,400,000
99841175,99840938,99841176	6	RICHRE29 230.0 kV - RICHMOND 230.0 kV Ckt 1	<p>pe002 (1672) : Replace 1 piece of station cable in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$45,000 Time Estimate : 24.0 Months</p> <p>pe003 (1673) : Replace reactor in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$2,254,000 Time Estimate : 36.0 Months</p> <p>pe004 (1674) : Replace 2 circuit breakers in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$752,000 Time Estimate : 36.0 Months</p> <p>pe005 (1675) : Replace 6 disconnect switches in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$1,241,000 Time Estimate : 36.0 Months</p> <p>pe006 (1676) : Replace 8 pieces of station cable in Richmond substation on Richmond-Camden tie line Project Type : FAC Cost : \$363,000 Time Estimate : 36.0 Months</p> <p>pe007 (1677) : Reconductor PECO portion of line using 'Pecos' conductor on this bifurcated line (conductors run on parallel towers and remain tied together as they are today, which remains a 6-wire line) and also rebuild the Richmond 230 kV substation ring bus to increase bus rating (Does not include permitting or ROW acquisition). Cost & Ratings for PECO portion of tie line only. Project Type : FAC Cost : \$15,653,000 Time Estimate : 36.0 Months</p>	\$20,308,000
TOTAL COST			\$387,775,536	

11.6 Flow Gate Details

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99841534	219108	CUTHBERT	PSE&G	219125	CAMDEN	PSE&G	1	PS_P1-2_U-2299_LT	single	771.0	99.99	100.52	DC	4.52

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213400	COVANTA DELA	2.2107	80/20	2.2107
219124	CAMDEN_STG	3.9642	80/20	3.9642
219126	CAMDEN_CTG	4.8701	80/20	4.8701
219128	GLOUCSTR_26	2.0125	80/20	2.0125
219229	EAGLEPT_G3	2.4765	80/20	2.4765
219230	EAGLEPT_G1	4.6739	80/20	4.6739
219231	EAGLEPT_G2	4.6693	80/20	4.6693
219235	EAGLEPT_ST2	1.6896	80/20	1.6896
219258	KINSLEYDEP C	0.1060	80/20	0.1060
219259	KINSLEYDEP E	1.0031	80/20	1.0031
219340	CUTHBSP1_C	0.0100	80/20	0.0100
219345	CUTHBSP2_C	0.0099	80/20	0.0099
219350	CUTHBSP3_C	0.0100	80/20	0.0100
219357	CUTHBSP4_C	0.0079	80/20	0.0079
219384	DEPTFDSP1_C	0.0014	80/20	0.0014
219388	DEPTFDSP2_C	0.0014	80/20	0.0014
219393	DEPTFDSP3_C	0.0035	80/20	0.0035
219408	DEPTFDSP4_C	0.0014	80/20	0.0014
219623	KINSLEYBEA C	0.0763	80/20	0.0763
219662	THOROFSP1_C	0.0051	80/20	0.0051
219665	THOROFSP2_C	0.0051	80/20	0.0051
219683	THOSOLAR C	0.0281	80/20	0.0281
219706	BEAVBRSP1_C	0.0055	80/20	0.0055
219708	BEAVBRSP2_C	0.0055	80/20	0.0055
219718	GLOUCSP1_C	0.0109	80/20	0.0109
219766	PARADISE C	0.1155	80/20	0.1155
228102	BLE#2 ST (Deactivation : 30/04/2019)	14.3564	Adder	16.89
228200	CARL#1CT	0.7090	80/20	0.7090
228201	CARL#2CT	0.7504	80/20	0.7504
228251	CARLLS#4	0.0805	80/20	0.0805
228260	V4-054C	0.1972	80/20	0.1972
228304	LOGAN	8.3421	80/20	8.3421
228306	PCLP STM	2.1465	80/20	2.1465
228307	PCLP GT	2.1465	80/20	2.1465
228309	CCLP NUG	7.5908	80/20	7.5908
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.2871	80/20	0.2871
228351	V2-046C	0.2156	80/20	0.2156
228400	MICK 1CT	1.8102	80/20	1.8102
228423	Q-090 2	31.9384	80/20	31.9384
228471	VALERO1	0.6147	80/20	0.6147

228472	VALERO2	0.4103	80/20	0.4103
228473	VALERO3	0.4103	80/20	0.4103
228484	VALERO4	0.3616	80/20	0.3616
228717	S121	1.3785	80/20	1.3785
228720	V2-035C	0.0210	80/20	0.0210
228728	W1-130C	0.0872	80/20	0.0872
917471	Z2-083	3.2310	80/20	3.2310
923532	AB1-169AC	79.1835	80/20	79.1835
924051	AB2-049 C	0.4072	Adder	0.48
924531	AB2-102 C	23.1871	Adder	27.28
924701	AB2-122 C	0.0616	Adder	0.07
925391	AC1-010 C (Suspended)	0.7755	80/20	0.7755
925441	AC1-016 C (Withdrawn : Unavailable)	-0.2940	Adder	-0.35
930001	AB1-001 C	0.0730	Adder	0.09
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0516	Adder	0.06
936501	AD2-065 C	0.0903	Adder	0.11
937011	AD2-135 C	0.0610	Adder	0.07
938421	AE1-061 C	0.3970	80/20	0.3970
938431	AE1-062 C	0.8339	Adder	0.98
938781	AE1-104 C O1	11.5882	Adder	13.63
938871	AE1-115 C	1.8169	80/20	1.8169
939301	AE1-161 C	3.0814	80/20	3.0814
939501	AE1-179 C O1	4.8541	80/20	4.8541
939821	AE1-218 C O1	0.1209	80/20	0.1209
939831	AE1-219 C O1	0.2720	80/20	0.2720
939931	AE1-229 C O1	14.7820	80/20	14.7820
940001	AE1-240 C O1	4.0336	80/20	4.0336
940361	AE2-020 C	8.9488	Adder	10.53
940371	AE2-021 C	8.9488	Adder	10.53
940381	AE2-022 C	5.2201	Adder	6.14
940771	AE2-064 C	0.0463	80/20	0.0463
940781	AE2-065 C	0.0391	80/20	0.0391
942101	AE2-222 C O1	7.7247	Adder	9.09
942381	AE2-251 C	28.3496	Adder	33.35
942571	AE2-272	0.0246	80/20	0.0246
943071	AE2-334 C	4.3587	80/20	4.3587
944951	AF1-160 C	0.8339	Adder	0.98
945431	AF1-208 C O1	4.2760	80/20	4.2760
945731	AF1-238 C	5.8115	Adder	6.84
945741	AF1-239 C	1.3674	Adder	1.61
945971	AF1-262	0.1443	80/20	0.1443
945991	AF1-264	0.2661	80/20	0.2661
957221	AF2-016 C	5.8331	Adder	12.95
957251	AF2-019 C	0.8410	Adder	1.87
957261	AF2-020 C	1.2056	80/20	1.2056
957281	AF2-022 C	1.1126	Adder	2.47
957291	AF2-023 C O1	3.6344	80/20	3.6344
957301	AF2-024 C	4.5214	80/20	4.5214
957311	AF2-025 C	0.3839	Adder	0.85
957321	AF2-026 C	0.6916	Adder	1.54
957641	AF2-058	0.3760	80/20	0.3760

958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2327	Adder	0.52
958811	AF2-172 C	0.5472	80/20	0.5472
959111	AF2-202 C	0.1716	80/20	0.1716
NEWTON	NEWTON	0.3095	Confirmed LTF	0.3095
FARMERCITY	FARMERCITY	0.0160	Confirmed LTF	0.0160
CALDERWOOD	CALDERWOOD	0.1337	Confirmed LTF	0.1337
NY	NY	0.6111	Confirmed LTF	0.6111
PRAIRIE	PRAIRIE	0.7362	Confirmed LTF	0.7362
CHEOAH	CHEOAH	0.1341	Confirmed LTF	0.1341
EDWARDS	EDWARDS	0.1019	Confirmed LTF	0.1019
TILTON	TILTON	0.1833	Confirmed LTF	0.1833
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1578	Confirmed LTF	0.1578
BLUEG	BLUEG	0.5017	Confirmed LTF	0.5017
TRIMBLE	TRIMBLE	0.1608	Confirmed LTF	0.1608
CATAWBA	CATAWBA	0.0882	Confirmed LTF	0.0882

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
99842322	213559	DELCOTAP	PECO	213973	TRAINER2	PECO	1	PS_P7-1_V2274+P2242_LT	tower	841.0	99.37	100.76	DC	13.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213400	COVANTA DELA	6.5282	50/50	6.5282
219229	EAGLEPT_G3	2.3238	50/50	2.3238
219230	EAGLEPT_G1	4.3836	50/50	4.3836
219231	EAGLEPT_G2	4.3836	50/50	4.3836
219235	EAGLEPT_ST2	1.5844	50/50	1.5844
219258	KINSLEYDEP C	0.1003	50/50	0.1003
219259	KINSLEYDEP E	0.9492	50/50	0.9492
219384	DEPTFDSP1_C	0.0013	50/50	0.0013
219385	DEPTFDSP1_E	0.0126	50/50	0.0126
219388	DEPTFDSP2_C	0.0013	50/50	0.0013
219390	DEPTFDSP2_E	0.0126	50/50	0.0126
219393	DEPTFDSP3_C	0.0033	50/50	0.0033
219394	DEPTFDSP3_E	0.0315	50/50	0.0315
219408	DEPTFDSP4_C	0.0013	50/50	0.0013
219416	DEPTFDSP4_E	0.0126	50/50	0.0126
219662	THOROFSP1_C	0.0054	50/50	0.0054
219664	THOROFSP1_E	0.0514	50/50	0.0514
219665	THOROFSP2_C	0.0054	50/50	0.0054
219666	THOROFSP2_E	0.0514	50/50	0.0514
219683	THOSOLAR C	0.0301	50/50	0.0301
219684	THOSOLAR E	0.2847	50/50	0.2847
227881	GRENWCHG	0.4307	50/50	0.4307
227928	V4-067E	0.1382	Adder	0.16
228102	BLE#2 ST (Deactivation : 30/04/2019)	14.1532	Adder	16.65
228261	V4-054E	0.8420	Adder	0.99
228304	LOGAN	9.8327	50/50	9.8327
228306	PCLP STM	2.5065	50/50	2.5065
228307	PCLP GT	2.5065	50/50	2.5065
228334	MANNMILG	1.4270	Adder	1.68
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.2688	Adder	0.32
228357	V2-046E	2.1794	Adder	2.56
228400	MICK 1CT	2.1375	50/50	2.1375
228423	Q-090 2	38.6322	50/50	38.6322
228471	VALERO1	0.7233	50/50	0.7233
228472	VALERO2	0.4828	50/50	0.4828
228473	VALERO3	0.4828	50/50	0.4828
228484	VALERO4	0.4255	50/50	0.4255
228712	V2-041E	0.2665	Adder	0.31
228721	V2-035E	0.1791	Adder	0.21
228733	AB1-119 E	0.0677	Adder	0.08

902092	W1-130E	0.7174	Adder	0.84
902432	W2-030 E	0.5324	Adder	0.63
917471	Z2-083	3.9081	50/50	3.9081
919901	AB1-000 1	-0.6135	Adder	-0.72
919911	AB1-000 2	-0.6135	Adder	-0.72
919921	AB1-000 3	-0.6135	Adder	-0.72
923153	AB1-116 E	0.0919	Adder	0.11
923532	AB1-169AC	69.0124	Adder	81.19
924051	AB2-049 C	0.3930	Adder	0.46
924052	AB2-049 E	0.6413	Adder	0.75
924531	AB2-102 C	23.0858	Adder	27.16
924532	AB2-102 E	0.5130	Adder	0.6
924701	AB2-122 C	0.0597	Adder	0.07
924702	AB2-122 E	0.1023	Adder	0.12
930001	AB1-001 C	0.0730	Adder	0.09
930002	AB1-001 E	0.1200	Adder	0.14
933962	AD1-019 E	0.6746	Adder	0.79
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0492	Adder	0.06
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0677	Adder	0.08
936501	AD2-065 C	0.0913	Adder	0.11
936502	AD2-065 E	0.1260	Adder	0.15
937011	AD2-135 C	0.0529	Adder	0.06
937012	AD2-135 E	0.0899	Adder	0.11
938421	AE1-061 C	0.3461	Adder	0.41
938422	AE1-061 E	0.3461	Adder	0.41
938431	AE1-062 C	0.8187	Adder	0.96
938432	AE1-062 E	0.8187	Adder	0.96
938781	AE1-104 C O1	11.4242	Adder	13.44
938782	AE1-104 E O1	29.2285	Adder	34.39
938871	AE1-115 C	1.7359	Adder	2.04
938872	AE1-115 E	1.7359	Adder	2.04
939301	AE1-161 C	2.7089	Adder	3.19
939302	AE1-161 E	4.0634	Adder	4.78
939501	AE1-179 C O1	4.2656	Adder	5.02
939502	AE1-179 E O1	3.0103	Adder	3.54
939821	AE1-218 C O1	0.1052	Adder	0.12
939822	AE1-218 E O1	0.1578	Adder	0.19
939831	AE1-219 C O1	0.2367	Adder	0.28
939832	AE1-219 E O1	0.3420	Adder	0.4
939931	AE1-229 C O1	13.5981	Adder	16.0
939932	AE1-229 E O1	9.2131	Adder	10.84
940001	AE1-240 C O1	3.5508	Adder	4.18
940002	AE1-240 E O1	2.5346	Adder	2.98
940271	AE2-010	-0.2486	Adder	-0.29
940361	AE2-020 C	8.5462	Adder	10.05
940362	AE2-020 E	40.0138	Adder	47.08
940371	AE2-021 C	8.5462	Adder	10.05
940372	AE2-021 E	40.0138	Adder	47.08
940381	AE2-022 C	4.9853	Adder	5.87
940382	AE2-022 E	23.3414	Adder	27.46
940781	AE2-065 C	0.0370	50/50	0.0370
940782	AE2-065 E	0.3368	50/50	0.3368

942101	AE2-222 C O1	7.5838	Adder	8.92
942102	AE2-222 E O1	19.0510	Adder	22.41
942381	AE2-251 C	27.0741	Adder	31.85
942382	AE2-251 E	69.2751	Adder	81.5
943071	AE2-334 C	3.7795	Adder	4.45
943072	AE2-334 E	2.0149	Adder	2.37
943732	AF1-041 E	0.2114	Adder	0.25
944951	AF1-160 C	0.8187	Adder	0.96
944952	AF1-160 E	0.8597	Adder	1.01
945431	AF1-208 C O1	3.9256	Adder	4.62
945432	AF1-208 E O1	2.6171	Adder	3.08
945731	AF1-238 C	5.9233	Adder	6.97
945732	AF1-238 E	8.8850	Adder	10.45
945741	AF1-239 C	1.3937	Adder	1.64
945742	AF1-239 E	2.0906	Adder	2.46
945971	AF1-262	0.1300	Adder	0.15
957221	AF2-016 C	5.7152	Adder	12.69
957222	AF2-016 E	8.5728	Adder	19.03
957251	AF2-019 C	0.8340	Adder	1.85
957252	AF2-019 E	1.2509	Adder	2.78
957261	AF2-020 C	0.5775	Adder	1.28
957262	AF2-020 E	0.8662	Adder	1.92
957281	AF2-022 C	1.1143	Adder	2.47
957282	AF2-022 E	1.6714	Adder	3.71
957291	AF2-023 C O1	1.8405	Adder	4.09
957292	AF2-023 E O1	2.7607	Adder	6.13
957301	AF2-024 C	5.3394	50/50	5.3394
957302	AF2-024 E	8.0091	50/50	8.0091
957311	AF2-025 C	0.3763	Adder	0.84
957312	AF2-025 E	0.5645	Adder	1.25
957321	AF2-026 C	0.6987	Adder	1.55
957322	AF2-026 E	1.0481	Adder	2.33
957443	AF2-038 BAT	0.9731	Merchant Transmission	0.9731
957641	AF2-058	0.1799	Adder	0.4
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2294	Adder	0.51
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	27.3015	Adder	60.6
958811	AF2-172 C	0.2582	Adder	0.57
958812	AF2-172 E	0.4212	Adder	0.93
959111	AF2-202 C	0.0822	Adder	0.18
959112	AF2-202 E	0.1125	Adder	0.25
999905	MARINGEN 2	0.3551	Adder	0.42
999906	PVILLEG 2	0.1509	Adder	0.18
NEWTON	NEWTON	0.3492	Confirmed LTF	0.3492
FARMERCITY	FARMERCITY	0.0183	Confirmed LTF	0.0183
G-007A	G-007A	4.1381	Confirmed LTF	4.1381
VFT	VFT	7.2627	Confirmed LTF	7.2627
CALDERWOOD	CALDERWOOD	0.1660	Confirmed LTF	0.1660
PRAIRIE	PRAIRIE	0.8421	Confirmed LTF	0.8421
CHEOAH	CHEOAH	0.1672	Confirmed LTF	0.1672
EDWARDS	EDWARDS	0.1134	Confirmed LTF	0.1134
TILTON	TILTON	0.2041	Confirmed LTF	0.2041

GIBSON	GIBSON	0.1774	Confirmed LTF	0.1774
BLUEG	BLUEG	0.5642	Confirmed LTF	0.5642
TRIMBLE	TRIMBLE	0.1809	Confirmed LTF	0.1809
CATAWBA	CATAWBA	0.1197	Confirmed LTF	0.1197

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
99842314	228402	MONROE	AE	219100	NEWFRDM	PSE&G	1	PS_P7-1_V2274+P2242_LT	tower	804.0	99.54	101.92	DC	18.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219229	EAGLEPT_G3	3.1411	50/50	3.1411
219230	EAGLEPT_G1	5.9252	50/50	5.9252
219231	EAGLEPT_G2	5.9252	50/50	5.9252
219235	EAGLEPT_ST2	2.1416	50/50	2.1416
219258	KINSLEYDEP C	0.1356	50/50	0.1356
219259	KINSLEYDEP E	1.2830	50/50	1.2830
219384	DEPTFDSP1_C	0.0018	50/50	0.0018
219385	DEPTFDSP1_E	0.0170	50/50	0.0170
219388	DEPTFDSP2_C	0.0018	50/50	0.0018
219390	DEPTFDSP2_E	0.0170	50/50	0.0170
219393	DEPTFDSP3_C	0.0045	50/50	0.0045
219394	DEPTFDSP3_E	0.0426	50/50	0.0426
219408	DEPTFDSP4_C	0.0018	50/50	0.0018
219416	DEPTFDSP4_E	0.0170	50/50	0.0170
219662	THOROFSP1_C	0.0074	50/50	0.0074
219664	THOROFSP1_E	0.0695	50/50	0.0695
219665	THOROFSP2_C	0.0074	50/50	0.0074
219666	THOROFSP2_E	0.0695	50/50	0.0695
219683	THOSOLAR C	0.0407	50/50	0.0407
219684	THOSOLAR E	0.3849	50/50	0.3849
227881	GRENWCHG	0.6141	50/50	0.6141
228102	BLE#2 ST (Deactivation : 30/04/2019)	16.6754	Adder	19.62
228261	V4-054E	1.2743	Adder	1.5
228304	LOGAN	13.3229	50/50	13.3229
228306	PCLP STM	3.3992	50/50	3.3992
228307	PCLP GT	3.3992	50/50	3.3992
228334	MANNMILG	2.1522	Adder	2.53
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.3906	Adder	0.46
228351	V2-046C	0.3677	50/50	0.3677
228357	V2-046E	3.9287	50/50	3.9287
228400	MICK 1CT	3.0146	50/50	3.0146
228423	Q-090 2	52.2217	50/50	52.2217
228471	VALERO1	1.0230	50/50	1.0230
228472	VALERO2	0.6828	50/50	0.6828
228473	VALERO3	0.6828	50/50	0.6828
228484	VALERO4	0.6017	50/50	0.6017
228712	V2-041E	0.3583	Adder	0.42
228720	V2-035C	0.0510	50/50	0.0510
228721	V2-035E	0.4823	50/50	0.4823
228728	W1-130C	0.2238	50/50	0.2238

228733	AB1-119 E	0.0864	Adder	0.1
902092	W1-130E	2.1128	50/50	2.1128
902432	W2-030 E	0.5824	Adder	0.69
917471	Z2-083	5.2829	50/50	5.2829
923153	AB1-116 E	0.1619	Adder	0.19
923532	AB1-169AC	202.4110	50/50	202.4110
924051	AB2-049 C	0.5862	Adder	0.69
924052	AB2-049 E	0.9565	Adder	1.13
924531	AB2-102 C	27.7160	Adder	32.61
924532	AB2-102 E	0.6159	Adder	0.72
930001	AB1-001 C	0.0804	Adder	0.09
930002	AB1-001 E	0.1322	Adder	0.16
933962	AD1-019 E	0.7676	Adder	0.9
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0628	Adder	0.07
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0864	Adder	0.1
938421	AE1-061 C	1.0193	50/50	1.0193
938422	AE1-061 E	1.0193	50/50	1.0193
938781	AE1-104 C O1	13.4601	Adder	15.84
938782	AE1-104 E O1	34.4375	Adder	40.51
938871	AE1-115 C	2.4564	Adder	2.89
938872	AE1-115 E	2.4564	Adder	2.89
939301	AE1-161 C	8.7290	50/50	8.7290
939302	AE1-161 E	13.0935	50/50	13.0935
939501	AE1-179 C O1	6.5269	Adder	7.68
939502	AE1-179 E O1	4.6061	Adder	5.42
939821	AE1-218 C O1	0.2703	50/50	0.2703
939822	AE1-218 E O1	0.4055	50/50	0.4055
939831	AE1-219 C O1	0.6082	50/50	0.6082
939832	AE1-219 E O1	0.8786	50/50	0.8786
939931	AE1-229 C O1	30.6747	50/50	30.6747
939932	AE1-229 E O1	20.7830	50/50	20.7830
940001	AE1-240 C O1	5.3712	Adder	6.32
940002	AE1-240 E O1	3.8340	Adder	4.51
940781	AE2-065 C	0.0500	50/50	0.0500
940782	AE2-065 E	0.4552	50/50	0.4552
942101	AE2-222 C O1	8.7165	Adder	10.25
942102	AE2-222 E O1	21.8963	Adder	25.76
942571	AE2-272	0.0420	50/50	0.0420
943071	AE2-334 C	10.7697	50/50	10.7697
943072	AE2-334 E	5.7413	50/50	5.7413
943732	AF1-041 E	0.2370	Adder	0.28
945431	AF1-208 C O1	5.8539	Adder	6.89
945432	AF1-208 E O1	3.9026	Adder	4.59
945731	AF1-238 C	9.3259	Adder	10.97
945732	AF1-238 E	13.9888	Adder	16.46
945741	AF1-239 C	2.1943	Adder	2.58
945742	AF1-239 E	3.2915	Adder	3.87
945971	AF1-262	0.3501	50/50	0.3501
957221	AF2-016 C	6.6878	Adder	14.85
957222	AF2-016 E	10.0316	Adder	22.27
957251	AF2-019 C	1.0036	Adder	2.23
957252	AF2-019 E	1.5054	Adder	3.34

957261	AF2-020 C	0.8720	Adder	1.94
957262	AF2-020 E	1.3079	Adder	2.9
957281	AF2-022 C	1.4318	Adder	3.18
957282	AF2-022 E	2.1477	Adder	4.77
957291	AF2-023 C O1	2.6032	Adder	5.78
957292	AF2-023 E O1	3.9048	Adder	8.67
957301	AF2-024 C	7.5276	50/50	7.5276
957302	AF2-024 E	11.2914	50/50	11.2914
957311	AF2-025 C	0.4239	Adder	0.94
957312	AF2-025 E	0.6359	Adder	1.41
957321	AF2-026 C	0.9755	Adder	2.17
957322	AF2-026 E	1.4633	Adder	3.25
957641	AF2-058	0.2723	Adder	0.6
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2703	Adder	0.6
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	32.1670	Adder	71.4
958811	AF2-172 C	0.3930	Adder	0.87
958812	AF2-172 E	0.6412	Adder	1.42
959111	AF2-202 C	0.1241	Adder	0.28
959112	AF2-202 E	0.1698	Adder	0.38
999905	MARINGEN 2	0.4010	Adder	0.47
999906	PVILLEG 2	0.1750	Adder	0.21
NEWTON	NEWTON	0.4470	Confirmed LTF	0.4470
FARMERCITY	FARMERCITY	0.0232	Confirmed LTF	0.0232
CALDERWOOD	CALDERWOOD	0.2028	Confirmed LTF	0.2028
NY	NY	0.5701	Confirmed LTF	0.5701
PRAIRIE	PRAIRIE	1.0719	Confirmed LTF	1.0719
O-066	O-066	8.6822	Confirmed LTF	8.6822
CHEOAH	CHEOAH	0.2042	Confirmed LTF	0.2042
EDWARDS	EDWARDS	0.1460	Confirmed LTF	0.1460
TILTON	TILTON	0.2627	Confirmed LTF	0.2627
G-007	G-007	1.3385	Confirmed LTF	1.3385
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
GIBSON	GIBSON	0.2271	Confirmed LTF	0.2271
BLUEG	BLUEG	0.7222	Confirmed LTF	0.7222
TRIMBLE	TRIMBLE	0.2315	Confirmed LTF	0.2315
CATAWBA	CATAWBA	0.1407	Confirmed LTF	0.1407

11.6.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
99841139	213922	RICHMOND	PECO	214012	WANEETA3	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ CHICH045 \$ STBK	breaker	1180.0	147.87	148.4	DC	13.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213606	FAIRLESS (Deactivation : 01/06/2020)	8.2187	Adder	9.67
213878	PENNSBRY (Deactivation : 01/06/2020)	0.7257	Adder	0.85
213918	RICHMD91	3.9790	50/50	3.9790
213919	RICHMD92	3.9790	50/50	3.9790
214225	Y1-057 BAT	0.3381	Merchant Transmission	0.3381
218661	EHAMPSOLAR E	0.3679	Adder	0.43
219123	O-011 (Deactivation : 26/04/2020)	1.2448	Adder	1.46
219124	CAMDEN_STG	3.9428	50/50	3.9428
219126	CAMDEN_CTG	4.8439	50/50	4.8439
219128	GLOUCSTR_26	2.0016	50/50	2.0016
219229	EAGLEPT_G3	2.5466	50/50	2.5466
219230	EAGLEPT_G1	4.8051	50/50	4.8051
219231	EAGLEPT_G2	4.8025	50/50	4.8025
219235	EAGLEPT_ST2	1.7369	50/50	1.7369
219236	SOUTHERNHQ C	0.0199	50/50	0.0199
219237	SOUTHERNHQ E	0.1908	50/50	0.1908
219240	MANTUACREK E	0.7012	50/50	0.7012
219241	CAMDEN1	0.2928	50/50	0.2928
219242	CAMDEN2	0.0317	50/50	0.0317
219258	KINSLEYDEP C	0.1095	50/50	0.1095
219259	KINSLEYDEP E	1.0353	50/50	1.0353
219273	CLEANLIGHT E	0.3812	Adder	0.45
219288	REEVES ST E	1.3710	Adder	1.61
219292	REEVESSO E	0.1264	Adder	0.15
219305	NAMERICA E	0.9501	Adder	1.12
219340	CUTHBSP1_C	0.0063	50/50	0.0063
219344	CUTHBSP1_E	0.0592	50/50	0.0592
219345	CUTHBSP2_C	0.0063	50/50	0.0063
219347	CUTHBSP2_E	0.0592	50/50	0.0592
219349	LDSOLAR E	0.8319	Adder	0.98
219350	CUTHBSP3_C	0.0063	50/50	0.0063
219351	CUTHBSP3_E	0.0592	50/50	0.0592
219357	CUTHBSP4_C	0.0050	50/50	0.0050
219379	CUTHBSP4_E	0.0476	50/50	0.0476
219384	DEPTFDSP1_C	0.0014	50/50	0.0014
219385	DEPTFDSP1_E	0.0137	50/50	0.0137
219388	DEPTFDSP2_C	0.0014	50/50	0.0014
219390	DEPTFDSP2_E	0.0137	50/50	0.0137
219393	DEPTFDSP3_C	0.0036	50/50	0.0036

219394	DEPTFDSP3_E	0.0343	50/50	0.0343
219408	DEPTFDSP4_C	0.0014	50/50	0.0014
219416	DEPTFDSP4_E	0.0137	50/50	0.0137
219566	BURLINSP1_E	0.1141	Adder	0.13
219574	CAMDENSP1_C	0.0352	50/50	0.0352
219575	CAMDENSP1_E	0.3329	50/50	0.3329
219582	COXSCOSP1_E	0.0158	Adder	0.02
219608	WPEMNERT E	0.9501	Adder	1.12
219611	FLORENCE E	2.7146	Adder	3.19
219614	COXSCOSP2_E	0.0158	Adder	0.02
219619	MILLCREEK E	0.5309	Adder	0.62
219623	KINSLEYBEA C	0.0801	50/50	0.0801
219624	KINSLEYBEA E	0.7823	50/50	0.7823
219647	COOPERSOLA E	0.1391	50/50	0.1391
219652	LUMB23SP1_E	0.0418	Adder	0.05
219656	LUMB23SP2_E	0.0418	Adder	0.05
219662	THOROFSP1_C	0.0055	50/50	0.0055
219664	THOROFSP1_E	0.0524	50/50	0.0524
219665	THOROFSP2_C	0.0056	50/50	0.0056
219666	THOROFSP2_E	0.0527	50/50	0.0527
219683	THOSOLAR C	0.0307	50/50	0.0307
219684	THOSOLAR E	0.2902	50/50	0.2902
219687	LUMSOLAR_N E	0.4222	Adder	0.5
219689	LUMSOLAR_S E	0.4405	Adder	0.52
219706	BEAVBRSP1_C	0.0058	50/50	0.0058
219707	BEAVBRSP1_E	0.0547	50/50	0.0547
219708	BEAVBRSP2_C	0.0058	50/50	0.0058
219709	BEAVBRSP2_E	0.0546	50/50	0.0546
219710	CINNAMSP1_C	0.0033	50/50	0.0033
219711	CINNAMSP1_E	0.0314	50/50	0.0314
219712	CINNAMSP2_C	0.0020	50/50	0.0020
219713	CINNAMSP2_E	0.0188	50/50	0.0188
219714	CINNAMSP3_C	0.0033	50/50	0.0033
219715	CINNAMSP3_E	0.0314	50/50	0.0314
219716	CINNAMSP4_C	0.0033	50/50	0.0033
219717	CINNAMSP4_E	0.0313	50/50	0.0313
219718	GLOUCSP1_C	0.0108	50/50	0.0108
219719	GLOUCSP1_E	0.1027	50/50	0.1027
219726	BAT.STORG E	0.3409	50/50	0.3409
219765	PARADISE E	1.1219	50/50	1.1219
219766	PARADISE C	0.1149	50/50	0.1149
227881	GRENWCHG	0.3890	Adder	0.46
227928	V4-067E	0.2592	Adder	0.3
228102	BLE#2 ST (Deactivation : 30/04/2019)	24.6821	Adder	29.04
228261	V4-054E	1.1653	Adder	1.37
228334	MANNMILG	1.7277	Adder	2.03
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.3370	Adder	0.4
228357	V2-046E	2.6548	Adder	3.12
228712	V2-041E	0.4238	Adder	0.5
228721	V2-035E	0.2441	Adder	0.29
228733	AB1-119 E	0.1417	Adder	0.17
902092	W1-130E	1.0757	Adder	1.27

902432	W2-030 E	0.9703	Adder	1.14
910862	OWENSCORIN E	1.0087	50/50	1.0087
918622	AA1-079 E	7.0445	Adder	8.29
918632	AA1-079 E	7.0420	Adder	8.28
919901	AB1-000 1	0.8264	Adder	0.97
919911	AB1-000 2	0.8264	Adder	0.97
919921	AB1-000 3	0.8264	Adder	0.97
923153	AB1-116 E	0.1561	Adder	0.18
923532	AB1-169AC	103.6447	Adder	121.93
924051	AB2-049 C	0.7460	Adder	0.88
924052	AB2-049 E	1.2172	Adder	1.43
924531	AB2-102 C	37.4219	Adder	44.03
924532	AB2-102 E	0.8316	Adder	0.98
924701	AB2-122 C	0.1120	Adder	0.13
924702	AB2-122 E	0.1920	Adder	0.23
925391	AC1-010 C (Suspended)	0.7713	50/50	0.7713
925392	AC1-010 E (Suspended)	1.3322	50/50	1.3322
925441	AC1-016 C (Withdrawn : Unavailable)	0.7312	Adder	0.86
925442	AC1-016 E (Withdrawn : Unavailable)	1.1931	Adder	1.4
925452	AC1-017 E	0.5651	Adder	0.66
925561	AC1-030 C	0.0541	50/50	0.0541
925562	AC1-030 E	0.4950	50/50	0.4950
930001	AB1-001 C	0.1358	Adder	0.16
930002	AB1-001 E	0.2233	Adder	0.26
930242	AB1-063 E	0.1391	50/50	0.1391
932361	AC2-050 C O1	0.7643	Adder	0.9
932362	AC2-050 E O1	1.2471	Adder	1.47
933962	AD1-019 E	1.2295	Adder	1.45
934661	AD1-097 1	1.3332	Adder	1.57
934671	AD1-097 2	1.3332	Adder	1.57
934681	AD1-097 3	1.3332	Adder	1.57
934691	AD1-097 4	0.7892	Adder	0.93
936211	AD2-027 C	0.2406	50/50	0.2406
936212	AD2-027 E	2.2753	50/50	2.2753
936321	AD2-042 C	0.3165	50/50	0.3165
936322	AD2-042 E	3.0093	50/50	3.0093
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.1029	Adder	0.12
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.1417	Adder	0.17
936501	AD2-065 C	0.2105	Adder	0.25
936502	AD2-065 E	0.2903	Adder	0.34
937011	AD2-135 C	0.1142	Adder	0.13
937012	AD2-135 E	0.1942	Adder	0.23
938421	AE1-061 C	0.5190	Adder	0.61
938422	AE1-061 E	0.5190	Adder	0.61
938431	AE1-062 C	1.9388	Adder	2.28
938432	AE1-062 E	1.9388	Adder	2.28
938781	AE1-104 C O1	19.9229	Adder	23.44
938782	AE1-104 E O1	50.9724	Adder	59.97
938871	AE1-115 C	2.0517	Adder	2.41
938872	AE1-115 E	2.0517	Adder	2.41

939301	AE1-161 C	3.9127	Adder	4.6
939302	AE1-161 E	5.8691	Adder	6.9
939501	AE1-179 C O1	6.3326	Adder	7.45
939502	AE1-179 E O1	4.4690	Adder	5.26
939821	AE1-218 C O1	0.1625	Adder	0.19
939822	AE1-218 E O1	0.2438	Adder	0.29
939831	AE1-219 C O1	0.3657	Adder	0.43
939832	AE1-219 E O1	0.5282	Adder	0.62
939931	AE1-229 C O1	17.6287	Adder	20.74
939932	AE1-229 E O1	11.9440	Adder	14.05
940001	AE1-240 C O1	5.2480	Adder	6.17
940002	AE1-240 E O1	3.7460	Adder	4.41
940271	AE2-010	-0.5762	Adder	-0.68
940361	AE2-020 C	16.7576	Adder	19.71
940362	AE2-020 E	78.4603	Adder	92.31
940371	AE2-021 C	16.7576	Adder	19.71
940372	AE2-021 E	78.4603	Adder	92.31
940381	AE2-022 C	9.7753	Adder	11.5
940382	AE2-022 E	45.7685	Adder	53.85
940771	AE2-064 C	0.0486	50/50	0.0486
940772	AE2-064 E	0.3812	50/50	0.3812
940781	AE2-065 C	0.0403	50/50	0.0403
940782	AE2-065 E	0.3674	50/50	0.3674
942101	AE2-222 C O1	13.8200	Adder	16.26
942102	AE2-222 E O1	34.7167	Adder	40.84
942381	AE2-251 C	53.0878	Adder	62.46
942382	AE2-251 E	135.8367	Adder	159.81
943071	AE2-334 C	5.7714	Adder	6.79
943072	AE2-334 E	3.0767	Adder	3.62
943732	AF1-041 E	0.3874	Adder	0.46
944611	AF1-126 C O1	7.0971	Adder	8.35
944612	AF1-126 E O1	28.3883	Adder	33.4
944951	AF1-160 C	1.9388	Adder	2.28
944952	AF1-160 E	2.0357	Adder	2.39
945431	AF1-208 C O1	5.1975	Adder	6.11
945432	AF1-208 E O1	3.4650	Adder	4.08
945731	AF1-238 C	9.1070	Adder	10.71
945732	AF1-238 E	13.6605	Adder	16.07
945741	AF1-239 C	2.1428	Adder	2.52
945742	AF1-239 E	3.2142	Adder	3.78
945961	AF1-261	0.1970	Adder	0.23
945971	AF1-262	0.1772	Adder	0.21
945991	AF1-264	0.4371	50/50	0.4371
957221	AF2-016 C	10.3530	Adder	22.98
957222	AF2-016 E	15.5295	Adder	34.47
957251	AF2-019 C	1.4040	Adder	3.12
957252	AF2-019 E	2.1061	Adder	4.68
957261	AF2-020 C	0.7975	Adder	1.77
957262	AF2-020 E	1.1963	Adder	2.66
957281	AF2-022 C	1.7903	Adder	3.97
957282	AF2-022 E	2.6854	Adder	5.96
957291	AF2-023 C O1	2.1749	Adder	4.83
957292	AF2-023 E O1	3.2624	Adder	7.24

957301	AF2-024 C	2.4876	Adder	5.52
957302	AF2-024 E	3.7314	Adder	8.28
957311	AF2-025 C	0.6859	Adder	1.52
957312	AF2-025 E	1.0288	Adder	2.28
957321	AF2-026 C	1.0990	Adder	2.44
957322	AF2-026 E	1.6485	Adder	3.66
957443	AF2-038 BAT	2.4208	Merchant Transmission	2.4208
957641	AF2-058	0.2490	Adder	0.55
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.4001	Adder	0.89
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	47.6118	Adder	105.69
958811	AF2-172 C	0.3708	Adder	0.82
958812	AF2-172 E	0.6050	Adder	1.34
958831	AF2-174 C	0.4925	Adder	1.09
958832	AF2-174 E	0.6801	Adder	1.51
959111	AF2-202 C	0.1136	Adder	0.25
959112	AF2-202 E	0.1555	Adder	0.35
999905	MARINGEN 2	0.6471	Adder	0.76
999906	PVILLEG 2	0.2751	Adder	0.32
NEWTON	NEWTON	1.2905	Confirmed LTF	1.2905
FARMERCITY	FARMERCITY	0.0672	Confirmed LTF	0.0672
G-007A	G-007A	12.9129	Confirmed LTF	12.9129
VFT	VFT	23.4651	Confirmed LTF	23.4651
CALDERWOOD	CALDERWOOD	0.5934	Confirmed LTF	0.5934
PRAIRIE	PRAIRIE	3.0996	Confirmed LTF	3.0996
CHEOAH	CHEOAH	0.5976	Confirmed LTF	0.5976
EDWARDS	EDWARDS	0.4207	Confirmed LTF	0.4207
TILTON	TILTON	0.7573	Confirmed LTF	0.7573
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
GIBSON	GIBSON	0.6557	Confirmed LTF	0.6557
BLUEG	BLUEG	2.0849	Confirmed LTF	2.0849
TRIMBLE	TRIMBLE	0.6684	Confirmed LTF	0.6684
CATAWBA	CATAWBA	0.4161	Confirmed LTF	0.4161

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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
99841190	214010	WANEETA2	PECO	213817	N PHILA	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	621.0	133.02	133.53	DC	6.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
213606	FAIRLESS (Deactivation : 01/06/2020)	5.6212	Adder	6.61
213878	PENNSBRY (Deactivation : 01/06/2020)	0.4985	Adder	0.59
213918	RICHMD91	1.9246	50/50	1.9246
213919	RICHMD92	1.9246	50/50	1.9246
218661	EHAMPSOLAR E	0.1933	Adder	0.23
219123	O-011 (Deactivation : 26/04/2020)	0.6929	Adder	0.82
219124	CAMDEN_STG	1.9641	50/50	1.9641
219126	CAMDEN_CTG	2.4130	50/50	2.4130
219128	GLOUCSTR_26	0.9971	50/50	0.9971
219229	EAGLEPT_G3	1.2699	50/50	1.2699
219230	EAGLEPT_G1	2.3961	50/50	2.3961
219231	EAGLEPT_G2	2.3948	50/50	2.3948
219235	EAGLEPT_ST2	0.8662	50/50	0.8662
219236	SOUTHERNHQ C	0.0102	50/50	0.0102
219237	SOUTHERNHQ E	0.0979	50/50	0.0979
219240	MANTUACREK E	0.3493	50/50	0.3493
219241	CAMDEN1	0.1456	50/50	0.1456
219242	CAMDEN2	0.0157	50/50	0.0157
219258	KINSLEYDEP C	0.0546	50/50	0.0546
219259	KINSLEYDEP E	0.5163	50/50	0.5163
219273	CLEANLIGHT E	0.1979	Adder	0.23
219288	REEVES ST E	0.7192	Adder	0.85
219292	REEVESSO E	0.0663	Adder	0.08
219305	NAMERICA E	0.5263	Adder	0.62
219340	CUTHBSP1_C	0.0031	50/50	0.0031
219344	CUTHBSP1_E	0.0295	50/50	0.0295
219345	CUTHBSP2_C	0.0031	50/50	0.0031
219347	CUTHBSP2_E	0.0294	50/50	0.0294
219349	LDSOLAR E	0.4609	Adder	0.54
219350	CUTHBSP3_C	0.0031	50/50	0.0031
219351	CUTHBSP3_E	0.0295	50/50	0.0295
219357	CUTHBSP4_C	0.0025	50/50	0.0025
219379	CUTHBSP4_E	0.0237	50/50	0.0237
219384	DEPTFDSP1_C	0.0007	50/50	0.0007
219385	DEPTFDSP1_E	0.0068	50/50	0.0068
219388	DEPTFDSP2_C	0.0007	50/50	0.0007
219390	DEPTFDSP2_E	0.0068	50/50	0.0068
219393	DEPTFDSP3_C	0.0018	50/50	0.0018
219394	DEPTFDSP3_E	0.0171	50/50	0.0171

219408	DEPTFDSP4_C	0.0007	50/50	0.0007
219416	DEPTFDSP4_E	0.0068	50/50	0.0068
219566	BURLINSP1_E	0.0632	Adder	0.07
219574	CAMDENSP1_C	0.0175	50/50	0.0175
219575	CAMDENSP1_E	0.1656	50/50	0.1656
219582	COXSCOSP1_E	0.0083	Adder	0.01
219608	WPEMNERT E	0.5263	Adder	0.62
219611	FLORENCE E	1.5038	Adder	1.77
219614	COXSCOSP2_E	0.0083	Adder	0.01
219615	MILLCREEK C	0.0318	50/50	0.0318
219619	MILLCREEK E	0.3335	50/50	0.3335
219623	KINSLEYBEA C	0.0400	50/50	0.0400
219624	KINSLEYBEA E	0.3907	50/50	0.3907
219647	COOPERSOLA E	0.0696	50/50	0.0696
219652	LUMB23SP1_E	0.0219	Adder	0.03
219656	LUMB23SP2_E	0.0219	Adder	0.03
219662	THOROFSP1_C	0.0028	50/50	0.0028
219664	THOROFSP1_E	0.0262	50/50	0.0262
219665	THOROFSP2_C	0.0028	50/50	0.0028
219666	THOROFSP2_E	0.0263	50/50	0.0263
219683	THOSOLAR C	0.0153	50/50	0.0153
219684	THOSOLAR E	0.1450	50/50	0.1450
219687	LUMSOLAR_N E	0.2215	Adder	0.26
219689	LUMSOLAR_S E	0.2330	Adder	0.27
219706	BEAVBRSP1_C	0.0029	50/50	0.0029
219707	BEAVBRSP1_E	0.0273	50/50	0.0273
219708	BEAVBRSP2_C	0.0029	50/50	0.0029
219709	BEAVBRSP2_E	0.0273	50/50	0.0273
219710	CINNAMSP1_C	0.0017	50/50	0.0017
219711	CINNAMSP1_E	0.0161	50/50	0.0161
219712	CINNAMSP2_C	0.0010	50/50	0.0010
219713	CINNAMSP2_E	0.0096	50/50	0.0096
219714	CINNAMSP3_C	0.0017	50/50	0.0017
219715	CINNAMSP3_E	0.0161	50/50	0.0161
219716	CINNAMSP4_C	0.0017	50/50	0.0017
219717	CINNAMSP4_E	0.0160	50/50	0.0160
219718	GLOUCSP1_C	0.0054	50/50	0.0054
219719	GLOUCSP1_E	0.0512	50/50	0.0512
219726	BAT.STORG E	0.1703	50/50	0.1703
219765	PARADISE E	0.5588	50/50	0.5588
219766	PARADISE C	0.0572	50/50	0.0572
227881	GRENWCHG	0.1955	Adder	0.23
227928	V4-067E	0.1336	Adder	0.16
228102	BLE#2 ST (Deactivation : 30/04/2019)	12.6728	Adder	14.91
228261	V4-054E	0.5915	Adder	0.7
228334	MANNMILG	0.8724	Adder	1.03
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.1704	Adder	0.2
228357	V2-046E	1.3409	Adder	1.58
228712	V2-041E	0.2163	Adder	0.25
228721	V2-035E	0.1238	Adder	0.15
228733	AB1-119 E	0.0725	Adder	0.09
902092	W1-130E	0.5476	Adder	0.64

902432	W2-030 E	0.4997	Adder	0.59
910862	OWENSCORIN E	0.5041	50/50	0.5041
918622	AA1-079 E	4.2992	Adder	5.06
918632	AA1-079 E	4.2973	Adder	5.06
923153	AB1-116 E	0.0795	Adder	0.09
923532	AB1-169AC	52.7667	Adder	62.08
924051	AB2-049 C	0.3807	Adder	0.45
924052	AB2-049 E	0.6211	Adder	0.73
924531	AB2-102 C	19.1059	Adder	22.48
924532	AB2-102 E	0.4246	Adder	0.5
924701	AB2-122 C	0.0577	Adder	0.07
924702	AB2-122 E	0.0990	Adder	0.12
925391	AC1-010 C (Suspended)	0.3842	50/50	0.3842
925392	AC1-010 E (Suspended)	0.6636	50/50	0.6636
925441	AC1-016 C (Withdrawn : Unavailable)	0.4051	Adder	0.48
925442	AC1-016 E (Withdrawn : Unavailable)	0.6610	Adder	0.78
925451	AC1-017 C	0.0374	50/50	0.0374
925452	AC1-017 E	0.3550	50/50	0.3550
925561	AC1-030 C	0.0277	50/50	0.0277
925562	AC1-030 E	0.2536	50/50	0.2536
930001	AB1-001 C	0.0703	Adder	0.08
930002	AB1-001 E	0.1155	Adder	0.14
930242	AB1-063 E	0.0696	50/50	0.0696
932361	AC2-050 C O1	0.3985	Adder	0.47
932362	AC2-050 E O1	0.6502	Adder	0.76
933962	AD1-019 E	0.6333	Adder	0.75
936211	AD2-027 C	0.1197	50/50	0.1197
936212	AD2-027 E	1.1318	50/50	1.1318
936321	AD2-042 C	0.1574	50/50	0.1574
936322	AD2-042 E	1.4969	50/50	1.4969
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0526	Adder	0.06
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0725	Adder	0.09
936501	AD2-065 C	0.1080	Adder	0.13
936502	AD2-065 E	0.1490	Adder	0.18
937011	AD2-135 C	0.0584	Adder	0.07
937012	AD2-135 E	0.0992	Adder	0.12
938421	AE1-061 C	0.2642	Adder	0.31
938422	AE1-061 E	0.2642	Adder	0.31
938431	AE1-062 C	0.9948	Adder	1.17
938432	AE1-062 E	0.9948	Adder	1.17
938781	AE1-104 C O1	10.2292	Adder	12.03
938782	AE1-104 E O1	26.1713	Adder	30.79
938871	AE1-115 C	1.0353	Adder	1.22
938872	AE1-115 E	1.0353	Adder	1.22
939301	AE1-161 C	1.9868	Adder	2.34
939302	AE1-161 E	2.9802	Adder	3.51
939501	AE1-179 C O1	3.2219	Adder	3.79
939502	AE1-179 E O1	2.2738	Adder	2.68
939821	AE1-218 C O1	0.0825	Adder	0.1
939822	AE1-218 E O1	0.1238	Adder	0.15

939831	AE1-219 C O1	0.1857	Adder	0.22
939832	AE1-219 E O1	0.2683	Adder	0.32
939931	AE1-229 C O1	8.9237	Adder	10.5
939932	AE1-229 E O1	6.0460	Adder	7.11
940001	AE1-240 C O1	2.6698	Adder	3.14
940002	AE1-240 E O1	1.9057	Adder	2.24
940271	AE2-010	-0.6977	Adder	-0.82
940361	AE2-020 C	8.6575	Adder	10.19
940362	AE2-020 E	40.5349	Adder	47.69
940371	AE2-021 C	8.6575	Adder	10.19
940372	AE2-021 E	40.5349	Adder	47.69
940381	AE2-022 C	5.0502	Adder	5.94
940382	AE2-022 E	23.6453	Adder	27.82
940771	AE2-064 C	0.0243	50/50	0.0243
940772	AE2-064 E	0.1904	50/50	0.1904
940781	AE2-065 C	0.0201	50/50	0.0201
940782	AE2-065 E	0.1832	50/50	0.1832
942101	AE2-222 C O1	7.1198	Adder	8.38
942102	AE2-222 E O1	17.8855	Adder	21.04
942381	AE2-251 C	27.4267	Adder	32.27
942382	AE2-251 E	70.1771	Adder	82.56
943071	AE2-334 C	2.9303	Adder	3.45
943072	AE2-334 E	1.5622	Adder	1.84
943732	AF1-041 E	0.1996	Adder	0.23
944951	AF1-160 C	0.9948	Adder	1.17
944952	AF1-160 E	1.0445	Adder	1.23
945431	AF1-208 C O1	2.6340	Adder	3.1
945432	AF1-208 E O1	1.7560	Adder	2.07
945731	AF1-238 C	4.6385	Adder	5.46
945732	AF1-238 E	6.9577	Adder	8.19
945741	AF1-239 C	1.0914	Adder	1.28
945742	AF1-239 E	1.6371	Adder	1.93
945961	AF1-261	0.1092	Adder	0.13
945971	AF1-262	0.0898	Adder	0.11
945991	AF1-264	0.2184	50/50	0.2184
957221	AF2-016 C	5.3298	Adder	11.83
957222	AF2-016 E	7.9947	Adder	17.75
957251	AF2-019 C	0.7190	Adder	1.6
957252	AF2-019 E	1.0785	Adder	2.39
957261	AF2-020 C	0.4048	Adder	0.9
957262	AF2-020 E	0.6072	Adder	1.35
957281	AF2-022 C	0.9139	Adder	2.03
957282	AF2-022 E	1.3708	Adder	3.04
957291	AF2-023 C O1	1.0975	Adder	2.44
957292	AF2-023 E O1	1.6463	Adder	3.65
957301	AF2-024 C	1.2487	Adder	2.77
957302	AF2-024 E	1.8730	Adder	4.16
957311	AF2-025 C	0.3533	Adder	0.78
957312	AF2-025 E	0.5300	Adder	1.18
957321	AF2-026 C	0.5604	Adder	1.24
957322	AF2-026 E	0.8407	Adder	1.87
957443	AF2-038 BAT	5.7378	50/50	5.7378
957641	AF2-058	0.1264	Adder	0.28

958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2054	Adder	0.46
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	24.4458	Adder	54.26
958811	AF2-172 C	0.1885	Adder	0.42
958812	AF2-172 E	0.3075	Adder	0.68
958831	AF2-174 C	0.2568	Adder	0.57
958832	AF2-174 E	0.3546	Adder	0.79
959111	AF2-202 C	0.0577	Adder	0.13
959112	AF2-202 E	0.0789	Adder	0.18
999905	MARINGEN 2	0.3333	Adder	0.39
999906	PVILLEG 2	0.1417	Adder	0.17
NEWTON	NEWTON	0.5566	Confirmed LTF	0.5566
FARMERCITY	FARMERCITY	0.0290	Confirmed LTF	0.0290
G-007A	G-007A	8.3241	Confirmed LTF	8.3241
VFT	VFT	16.8861	Confirmed LTF	16.8861
CALDERWOOD	CALDERWOOD	0.2609	Confirmed LTF	0.2609
PRAIRIE	PRAIRIE	1.3406	Confirmed LTF	1.3406
CHEOAH	CHEOAH	0.2628	Confirmed LTF	0.2628
EDWARDS	EDWARDS	0.1809	Confirmed LTF	0.1809
TILTON	TILTON	0.3257	Confirmed LTF	0.3257
GIBSON	GIBSON	0.2828	Confirmed LTF	0.2828
BLUEG	BLUEG	0.8992	Confirmed LTF	0.8992
TRIMBLE	TRIMBLE	0.2877	Confirmed LTF	0.2877
CATAWBA	CATAWBA	0.1855	Confirmed LTF	0.1855

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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
99841175	214206	RICHRE29	PECO	213922	RICHMOND	PECO	1	PECO_P4_CHICH045/ * \$ DELCO \$ CHICH045 \$ STBK	breaker	1336.0	141.28	142.15	DC	15.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218661	EHAMPSOLAR E	0.3426	Adder	0.4
219123	O-011 (Deactivation : 26/04/2020)	0.8444	Adder	0.99
219124	CAMDEN_STG	4.4029	50/50	4.4029
219126	CAMDEN_CTG	5.4091	50/50	5.4091
219128	GLOUCSTR_26	2.2352	50/50	2.2352
219229	EAGLEPT_G3	2.8352	50/50	2.8352
219230	EAGLEPT_G1	5.3498	50/50	5.3498
219231	EAGLEPT_G2	5.3467	50/50	5.3467
219235	EAGLEPT_ST2	1.9339	50/50	1.9339
219236	SOUTHERNHQ C	0.0199	50/50	0.0199
219237	SOUTHERNHQ E	0.1911	50/50	0.1911
219240	MANTUACREK E	0.7830	50/50	0.7830
219241	CAMDEN1	0.3282	50/50	0.3282
219242	CAMDEN2	0.0355	50/50	0.0355
219258	KINSLEYDEP C	0.1218	50/50	0.1218
219259	KINSLEYDEP E	1.1523	50/50	1.1523
219273	CLEANLIGHT E	0.3709	Adder	0.44
219288	REEVES ST E	1.2928	Adder	1.52
219292	REEVESSO E	0.1184	Adder	0.14
219305	NAMERICA E	0.6473	Adder	0.76
219340	CUTHBSP1_C	0.0070	50/50	0.0070
219344	CUTHBSP1_E	0.0663	50/50	0.0663
219345	CUTHBSP2_C	0.0070	50/50	0.0070
219347	CUTHBSP2_E	0.0662	50/50	0.0662
219349	LDSOLAR E	0.5668	Adder	0.67
219350	CUTHBSP3_C	0.0070	50/50	0.0070
219351	CUTHBSP3_E	0.0663	50/50	0.0663
219357	CUTHBSP4_C	0.0056	50/50	0.0056
219379	CUTHBSP4_E	0.0533	50/50	0.0533
219384	DEPTFDSP1_C	0.0016	50/50	0.0016
219385	DEPTFDSP1_E	0.0152	50/50	0.0152
219388	DEPTFDSP2_C	0.0016	50/50	0.0016
219390	DEPTFDSP2_E	0.0152	50/50	0.0152
219393	DEPTFDSP3_C	0.0040	50/50	0.0040
219394	DEPTFDSP3_E	0.0382	50/50	0.0382
219408	DEPTFDSP4_C	0.0016	50/50	0.0016
219416	DEPTFDSP4_E	0.0152	50/50	0.0152
219566	BURLINSP1_E	0.0777	Adder	0.09
219574	CAMDENSP1_C	0.0395	50/50	0.0395
219575	CAMDENSP1_E	0.3731	50/50	0.3731
219582	COXSCOSP1_E	0.0149	Adder	0.02

219608	WPEMNERT E	0.6473	Adder	0.76
219611	FLORENCE E	1.8496	Adder	2.18
219614	COXSCOSP2_E	0.0149	Adder	0.02
219619	MILLCREEK E	0.4440	Adder	0.52
219623	KINSLEYBEA C	0.0888	50/50	0.0888
219624	KINSLEYBEA E	0.8682	50/50	0.8682
219647	COOPERSOLA E	0.1530	50/50	0.1530
219652	LUMB23SP1_E	0.0394	Adder	0.05
219656	LUMB23SP2_E	0.0394	Adder	0.05
219662	THOROFSP1_C	0.0061	50/50	0.0061
219664	THOROFSP1_E	0.0581	50/50	0.0581
219665	THOROFSP2_C	0.0062	50/50	0.0062
219666	THOROFSP2_E	0.0584	50/50	0.0584
219683	THOSOLAR C	0.0340	50/50	0.0340
219684	THOSOLAR E	0.3214	50/50	0.3214
219687	LUMSOLAR_N E	0.3981	Adder	0.47
219689	LUMSOLAR_S E	0.3949	Adder	0.46
219706	BEAVBRSP1_C	0.0064	50/50	0.0064
219707	BEAVBRSP1_E	0.0607	50/50	0.0607
219708	BEAVBRSP2_C	0.0064	50/50	0.0064
219709	BEAVBRSP2_E	0.0606	50/50	0.0606
219710	CINNAMSP1_C	0.0033	50/50	0.0033
219711	CINNAMSP1_E	0.0315	50/50	0.0315
219712	CINNAMSP2_C	0.0020	50/50	0.0020
219713	CINNAMSP2_E	0.0188	50/50	0.0188
219714	CINNAMSP3_C	0.0033	50/50	0.0033
219715	CINNAMSP3_E	0.0315	50/50	0.0315
219716	CINNAMSP4_C	0.0033	50/50	0.0033
219717	CINNAMSP4_E	0.0313	50/50	0.0313
219718	GLOUCSP1_C	0.0121	50/50	0.0121
219719	GLOUCSP1_E	0.1147	50/50	0.1147
219726	BAT.STORG E	0.3771	50/50	0.3771
219765	PARADISE E	1.2528	50/50	1.2528
219766	PARADISE C	0.1283	50/50	0.1283
227881	GRENWCHG	0.4248	Adder	0.5
227928	V4-067E	0.2699	Adder	0.32
228102	BLE#2 ST (Deactivation : 30/04/2019)	25.8978	Adder	30.47
228261	V4-054E	1.2467	Adder	1.47
228334	MANNMILG	1.8675	Adder	2.2
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.3632	Adder	0.43
228357	V2-046E	2.8680	Adder	3.37
228400	MICK 1CT	2.4200	50/50	2.4200
228423	Q-090 2	40.8139	50/50	40.8139
228712	V2-041E	0.4491	Adder	0.53
228721	V2-035E	0.2617	Adder	0.31
228733	AB1-119 E	0.1471	Adder	0.17
902092	W1-130E	1.1439	Adder	1.35
902432	W2-030 E	1.0131	Adder	1.19
910862	OWENSCORIN E	1.1157	50/50	1.1157
917471	Z2-083	4.1288	50/50	4.1288
919901	AB1-000 1	0.9066	Adder	1.07
919911	AB1-000 2	0.9066	Adder	1.07

919921	AB1-000 3	0.9066	Adder	1.07
923153	AB1-116 E	0.1645	Adder	0.19
923532	AB1-169AC	110.1944	Adder	129.64
924051	AB2-049 C	0.7807	Adder	0.92
924052	AB2-049 E	1.2738	Adder	1.5
924531	AB2-102 C	39.6289	Adder	46.62
924532	AB2-102 E	0.8806	Adder	1.04
924701	AB2-122 C	0.1166	Adder	0.14
924702	AB2-122 E	0.2000	Adder	0.24
925391	AC1-010 C (Suspended)	0.8613	50/50	0.8613
925392	AC1-010 E (Suspended)	1.4877	50/50	1.4877
925441	AC1-016 C (Withdrawn : Unavailable)	0.4982	Adder	0.59
925442	AC1-016 E (Withdrawn : Unavailable)	0.8129	Adder	0.96
925452	AC1-017 E	0.4726	Adder	0.56
925561	AC1-030 C	0.0544	50/50	0.0544
925562	AC1-030 E	0.4975	50/50	0.4975
930001	AB1-001 C	0.1409	Adder	0.17
930002	AB1-001 E	0.2316	Adder	0.27
930242	AB1-063 E	0.1530	50/50	0.1530
932361	AC2-050 C O1	0.7353	Adder	0.87
932362	AC2-050 E O1	1.1997	Adder	1.41
933962	AD1-019 E	1.2831	Adder	1.51
934661	AD1-097 1	1.4627	Adder	1.72
934671	AD1-097 2	1.4627	Adder	1.72
934681	AD1-097 3	1.4627	Adder	1.72
934691	AD1-097 4	0.8658	Adder	1.02
936211	AD2-027 C	0.2697	50/50	0.2697
936212	AD2-027 E	2.5507	50/50	2.5507
936321	AD2-042 C	0.3548	50/50	0.3548
936322	AD2-042 E	3.3735	50/50	3.3735
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.1068	Adder	0.13
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.1471	Adder	0.17
936501	AD2-065 C	0.2156	Adder	0.25
936502	AD2-065 E	0.2974	Adder	0.35
937011	AD2-135 C	0.1193	Adder	0.14
937012	AD2-135 E	0.2028	Adder	0.24
938421	AE1-061 C	0.5519	Adder	0.65
938422	AE1-061 E	0.5519	Adder	0.65
938431	AE1-062 C	1.9897	Adder	2.34
938432	AE1-062 E	1.9897	Adder	2.34
938781	AE1-104 C O1	20.9042	Adder	24.59
938782	AE1-104 E O1	53.4831	Adder	62.92
938871	AE1-115 C	2.2224	Adder	2.61
938872	AE1-115 E	2.2224	Adder	2.61
939301	AE1-161 C	4.1767	Adder	4.91
939302	AE1-161 E	6.2651	Adder	7.37
939501	AE1-179 C O1	6.7419	Adder	7.93
939502	AE1-179 E O1	4.7579	Adder	5.6
939821	AE1-218 C O1	0.1726	Adder	0.2
939822	AE1-218 E O1	0.2588	Adder	0.3

939831	AE1-219 C O1	0.3882	Adder	0.46
939832	AE1-219 E O1	0.5608	Adder	0.66
939931	AE1-229 C O1	18.9647	Adder	22.31
939932	AE1-229 E O1	12.8491	Adder	15.12
940001	AE1-240 C O1	5.5886	Adder	6.57
940002	AE1-240 E O1	3.9891	Adder	4.69
940271	AE2-010	-0.5405	Adder	-0.64
940361	AE2-020 C	17.3972	Adder	20.47
940362	AE2-020 E	81.4552	Adder	95.83
940371	AE2-021 C	17.3972	Adder	20.47
940372	AE2-021 E	81.4552	Adder	95.83
940381	AE2-022 C	10.1484	Adder	11.94
940382	AE2-022 E	47.5155	Adder	55.9
940771	AE2-064 C	0.0539	50/50	0.0539
940772	AE2-064 E	0.4231	50/50	0.4231
940781	AE2-065 C	0.0449	50/50	0.0449
940782	AE2-065 E	0.4089	50/50	0.4089
942101	AE2-222 C O1	14.4205	Adder	16.97
942102	AE2-222 E O1	36.2251	Adder	42.62
942381	AE2-251 C	55.1142	Adder	64.84
942382	AE2-251 E	141.0216	Adder	165.91
943071	AE2-334 C	6.1368	Adder	7.22
943072	AE2-334 E	3.2715	Adder	3.85
943732	AF1-041 E	0.4041	Adder	0.48
944951	AF1-160 C	1.9897	Adder	2.34
944952	AF1-160 E	2.0892	Adder	2.46
945431	AF1-208 C O1	5.5789	Adder	6.56
945432	AF1-208 E O1	3.7193	Adder	4.38
945731	AF1-238 C	9.6736	Adder	11.38
945732	AF1-238 E	14.5103	Adder	17.07
945741	AF1-239 C	2.2761	Adder	2.68
945742	AF1-239 E	3.4142	Adder	4.02
945961	AF1-261	0.1342	Adder	0.16
945971	AF1-262	0.1899	Adder	0.22
945991	AF1-264	0.4835	50/50	0.4835
957221	AF2-016 C	10.8152	Adder	24.01
957222	AF2-016 E	16.2229	Adder	36.01
957251	AF2-019 C	1.4794	Adder	3.28
957252	AF2-019 E	2.2191	Adder	4.93
957261	AF2-020 C	0.8534	Adder	1.89
957262	AF2-020 E	1.2801	Adder	2.84
957281	AF2-022 C	1.8961	Adder	4.21
957282	AF2-022 E	2.8441	Adder	6.31
957291	AF2-023 C O1	2.3559	Adder	5.23
957292	AF2-023 E O1	3.5339	Adder	7.84
957301	AF2-024 C	2.7228	Adder	6.04
957302	AF2-024 E	9.0660	50/50	9.0660
957311	AF2-025 C	0.7159	Adder	1.59
957312	AF2-025 E	1.0738	Adder	2.38
957321	AF2-026 C	1.1655	Adder	2.59
957322	AF2-026 E	1.7482	Adder	3.88
957443	AF2-038 BAT	2.2472	Merchant Transmission	2.2472
957641	AF2-058	0.2664	Adder	0.59

958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.4198	Adder	0.93
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	49.9570	Adder	110.89
958811	AF2-172 C	0.3957	Adder	0.88
958812	AF2-172 E	0.6456	Adder	1.43
958831	AF2-174 C	0.4738	Adder	1.05
958832	AF2-174 E	0.6543	Adder	1.45
959111	AF2-202 C	0.1215	Adder	0.27
959112	AF2-202 E	0.1663	Adder	0.37
999905	MARINGEN 2	0.6753	Adder	0.79
999906	PVILLEG 2	0.2870	Adder	0.34
NEWTON	NEWTON	1.0842	Confirmed LTF	1.0842
FARMERCITY	FARMERCITY	0.0564	Confirmed LTF	0.0564
G-007A	G-007A	10.1294	Confirmed LTF	10.1294
VFT	VFT	15.0930	Confirmed LTF	15.0930
CALDERWOOD	CALDERWOOD	0.4945	Confirmed LTF	0.4945
PRAIRIE	PRAIRIE	2.6011	Confirmed LTF	2.6011
CHEOAH	CHEOAH	0.4975	Confirmed LTF	0.4975
EDWARDS	EDWARDS	0.3539	Confirmed LTF	0.3539
TILTON	TILTON	0.6369	Confirmed LTF	0.6369
MADISON	MADISON	0.0081	Confirmed LTF	0.0081
GIBSON	GIBSON	0.5515	Confirmed LTF	0.5515
BLUEG	BLUEG	1.7534	Confirmed LTF	1.7534
TRIMBLE	TRIMBLE	0.5621	Confirmed LTF	0.5621
CATAWBA	CATAWBA	0.3437	Confirmed LTF	0.3437

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
99841211	219110	GLOUCSTR	PSE&G	219125	CAMDEN	PSE&G	1	PS_P2-3_CUTB_1-4_LT	breaker	771.0	128.23	129.52	DC	10.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219124	CAMDEN_STG	3.6488	50/50	3.6488
219126	CAMDEN_C TG	4.4827	50/50	4.4827
219128	GLOUCSTR_26	1.8524	50/50	1.8524
219229	EAGLEPT_G3	2.2794	50/50	2.2794
219230	EAGLEPT_G1	4.3020	50/50	4.3020
219231	EAGLEPT_G2	4.2978	50/50	4.2978
219235	EAGLEPT_ST2	1.5552	50/50	1.5552
219240	MANTUACREK E	0.6489	50/50	0.6489
219258	KINSLEYDEP C	0.0976	50/50	0.0976
219259	KINSLEYDEP E	0.9233	50/50	0.9233
219384	DEPTFDSP1_C	0.0013	50/50	0.0013
219385	DEPTFDSP1_E	0.0122	50/50	0.0122
219388	DEPTFDSP2_C	0.0013	50/50	0.0013
219390	DEPTFDSP2_E	0.0122	50/50	0.0122
219393	DEPTFDSP3_C	0.0032	50/50	0.0032
219394	DEPTFDSP3_E	0.0306	50/50	0.0306
219408	DEPTFDSP4_C	0.0013	50/50	0.0013
219416	DEPTFDSP4_E	0.0122	50/50	0.0122
219623	KINSLEYBEA C	0.0703	50/50	0.0703
219624	KINSLEYBEA E	0.6866	50/50	0.6866
219662	THOROFSP1_C	0.0047	50/50	0.0047
219664	THOROFSP1_E	0.0441	50/50	0.0441
219665	THOROFSP2_C	0.0047	50/50	0.0047
219666	THOROFSP2_E	0.0445	50/50	0.0445
219683	THOSOLAR C	0.0258	50/50	0.0258
219684	THOSOLAR E	0.2443	50/50	0.2443
219706	BEAVBRSP1_C	0.0051	50/50	0.0051
219707	BEAVBRSP1_E	0.0480	50/50	0.0480
219708	BEAVBRSP2_C	0.0051	50/50	0.0051
219709	BEAVBRSP2_E	0.0478	50/50	0.0478
219718	GLOUCSP1_C	0.0100	50/50	0.0100
219719	GLOUCSP1_E	0.0951	50/50	0.0951
219726	BAT.STORG E	0.1379	Adder	0.16
219765	PARADISE E	1.0382	50/50	1.0382
219766	PARADISE C	0.1063	50/50	0.1063
227881	GRENWCHG	0.2880	Adder	0.34
227928	V4-067E	0.1312	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	13.2148	Adder	15.55
228261	V4-054E	0.7295	Adder	0.86
228334	MANNMILG	1.1774	Adder	1.39

228343	QUINTN#1 (Deactivation : 26/04/2020)	0.2247	Adder	0.26
228357	V2-046E	1.8018	Adder	2.12
228423	Q-090 2	29.3972	50/50	29.3972
228712	V2-041E	0.2439	Adder	0.29
228721	V2-035E	0.1555	Adder	0.18
228733	AB1-119 E	0.0654	Adder	0.08
902092	W1-130E	0.6438	Adder	0.76
902432	W2-030 E	0.5008	Adder	0.59
910862	OWENSCORIN E	0.4805	Adder	0.57
917471	Z2-083	2.9739	50/50	2.9739
918622	AA1-079 E	-2.8726	Adder	-3.38
918632	AA1-079 E	-2.8720	Adder	-3.38
923153	AB1-116 E	0.0845	Adder	0.1
923532	AB1-169AC	61.9484	Adder	72.88
924051	AB2-049 C	0.3748	Adder	0.44
924052	AB2-049 E	0.6115	Adder	0.72
924531	AB2-102 C	21.3416	Adder	25.11
924532	AB2-102 E	0.4743	Adder	0.56
924701	AB2-122 C	0.0567	Adder	0.07
924702	AB2-122 E	0.0972	Adder	0.11
925391	AC1-010 C (Suspended)	0.7138	50/50	0.7138
925392	AC1-010 E (Suspended)	1.2329	50/50	1.2329
925441	AC1-016 C (Withdrawn : Unavailable)	-0.2706	Adder	-0.32
930001	AB1-001 C	0.0672	Adder	0.08
930002	AB1-001 E	0.1105	Adder	0.13
933962	AD1-019 E	0.6330	Adder	0.74
936212	AD2-027 E	-0.8929	Adder	-1.05
936322	AD2-042 E	-1.1809	Adder	-1.39
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0475	Adder	0.06
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0654	Adder	0.08
936501	AD2-065 C	0.0832	Adder	0.1
936502	AD2-065 E	0.1147	Adder	0.13
937011	AD2-135 C	0.0561	Adder	0.07
937012	AD2-135 E	0.0954	Adder	0.11
938421	AE1-061 C	0.3106	Adder	0.37
938422	AE1-061 E	0.3106	Adder	0.37
938431	AE1-062 C	0.7676	Adder	0.9
938432	AE1-062 E	0.7676	Adder	0.9
938781	AE1-104 C O1	10.6668	Adder	12.55
938782	AE1-104 E O1	27.2907	Adder	32.11
938871	AE1-115 C	1.4215	Adder	1.67
938872	AE1-115 E	1.4215	Adder	1.67
939301	AE1-161 C	2.4108	Adder	2.84
939302	AE1-161 E	3.6162	Adder	4.25
939501	AE1-179 C O1	3.7979	Adder	4.47
939502	AE1-179 E O1	2.6802	Adder	3.15
939821	AE1-218 C O1	0.0946	Adder	0.11
939822	AE1-218 E O1	0.1419	Adder	0.17
939831	AE1-219 C O1	0.2128	Adder	0.25
939832	AE1-219 E O1	0.3074	Adder	0.36

939931	AE1-229 C O1	11.5646	Adder	13.61
939932	AE1-229 E O1	7.8354	Adder	9.22
940001	AE1-240 C O1	3.1557	Adder	3.71
940002	AE1-240 E O1	2.2525	Adder	2.65
940361	AE2-020 C	8.2368	Adder	9.69
940362	AE2-020 E	38.5651	Adder	45.37
940371	AE2-021 C	8.2368	Adder	9.69
940372	AE2-021 E	38.5651	Adder	45.37
940381	AE2-022 C	4.8048	Adder	5.65
940382	AE2-022 E	22.4963	Adder	26.47
940771	AE2-064 C	0.0427	50/50	0.0427
940772	AE2-064 E	0.3346	50/50	0.3346
940781	AE2-065 C	0.0360	50/50	0.0360
940782	AE2-065 E	0.3276	50/50	0.3276
942101	AE2-222 C O1	7.1104	Adder	8.37
942102	AE2-222 E O1	17.8617	Adder	21.01
942381	AE2-251 C	26.0939	Adder	30.7
942382	AE2-251 E	66.7669	Adder	78.55
943071	AE2-334 C	3.4102	Adder	4.01
943072	AE2-334 E	1.8180	Adder	2.14
943732	AF1-041 E	0.1986	Adder	0.23
944951	AF1-160 C	0.7676	Adder	0.9
944952	AF1-160 E	0.8059	Adder	0.95
945431	AF1-208 C O1	3.3454	Adder	3.94
945432	AF1-208 E O1	2.2303	Adder	2.62
945731	AF1-238 C	5.3490	Adder	6.29
945732	AF1-238 E	8.0234	Adder	9.44
945741	AF1-239 C	1.2586	Adder	1.48
945742	AF1-239 E	1.8879	Adder	2.22
945971	AF1-262	0.1129	Adder	0.13
945991	AF1-264	0.2082	Adder	0.24
957221	AF2-016 C	5.3692	Adder	11.92
957222	AF2-016 E	8.0539	Adder	17.88
957251	AF2-019 C	0.7741	Adder	1.72
957252	AF2-019 E	1.1612	Adder	2.58
957261	AF2-020 C	0.4999	Adder	1.11
957262	AF2-020 E	0.7499	Adder	1.66
957281	AF2-022 C	1.0241	Adder	2.27
957282	AF2-022 E	1.5361	Adder	3.41
957291	AF2-023 C O1	1.5070	Adder	3.35
957292	AF2-023 E O1	2.2605	Adder	5.02
957301	AF2-024 C	4.1618	50/50	4.1618
957302	AF2-024 E	6.2427	50/50	6.2427
957311	AF2-025 C	0.3533	Adder	0.78
957312	AF2-025 E	0.5300	Adder	1.18
957321	AF2-026 C	0.6366	Adder	1.41
957322	AF2-026 E	0.9548	Adder	2.12
957641	AF2-058	0.1559	Adder	0.35
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2142	Adder	0.48
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	25.4914	Adder	56.58
958811	AF2-172 C	0.2269	Adder	0.5

958812	AF2-172 E	0.3702	Adder	0.82
959111	AF2-202 C	0.0712	Adder	0.16
959112	AF2-202 E	0.0974	Adder	0.22
999905	MARINGEN 2	0.3333	Adder	0.39
999906	PVILLEG 2	0.1415	Adder	0.17
NEWTON	NEWTON	0.2858	Confirmed LTF	0.2858
FARMERCITY	FARMERCITY	0.0148	Confirmed LTF	0.0148
CALDERWOOD	CALDERWOOD	0.1233	Confirmed LTF	0.1233
NY	NY	0.5630	Confirmed LTF	0.5630
PRAIRIE	PRAIRIE	0.6793	Confirmed LTF	0.6793
O-066	O-066	8.3731	Confirmed LTF	8.3731
CHEOAH	CHEOAH	0.1236	Confirmed LTF	0.1236
EDWARDS	EDWARDS	0.0938	Confirmed LTF	0.0938
TILTON	TILTON	0.1688	Confirmed LTF	0.1688
G-007	G-007	0.7270	Confirmed LTF	0.7270
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1458	Confirmed LTF	0.1458
BLUEG	BLUEG	0.4618	Confirmed LTF	0.4618
TRIMBLE	TRIMBLE	0.1486	Confirmed LTF	0.1486
CATAWBA	CATAWBA	0.0812	Confirmed LTF	0.0812

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
99841170	219125	CAMDEN	PSE&G	214206	RICHRE29	PECO	1	PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK	breaker	1336.0	141.29	142.16	DC	15.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218661	EHAMPSOLAR E	0.3426	Adder	0.4
219123	O-011 (Deactivation : 26/04/2020)	0.8444	Adder	0.99
219124	CAMDEN_STG	4.4029	50/50	4.4029
219126	CAMDEN_C TG	5.4091	50/50	5.4091
219128	GLOUCSTR_26	2.2352	50/50	2.2352
219229	EAGLEPT_G3	2.8352	50/50	2.8352
219230	EAGLEPT_G1	5.3498	50/50	5.3498
219231	EAGLEPT_G2	5.3467	50/50	5.3467
219235	EAGLEPT_ST2	1.9339	50/50	1.9339
219236	SOUTHERNHQ C	0.0199	50/50	0.0199
219237	SOUTHERNHQ E	0.1911	50/50	0.1911
219240	MANTUACREK E	0.7830	50/50	0.7830
219241	CAMDEN1	0.3282	50/50	0.3282
219242	CAMDEN2	0.0355	50/50	0.0355
219258	KINSLEYDEP C	0.1218	50/50	0.1218
219259	KINSLEYDEP E	1.1523	50/50	1.1523
219273	CLEANLIGHT E	0.3709	Adder	0.44
219288	REEVES ST E	1.2928	Adder	1.52
219292	REEVESSO E	0.1184	Adder	0.14
219305	NAMERICA E	0.6473	Adder	0.76
219340	CUTHBSP1_C	0.0070	50/50	0.0070
219344	CUTHBSP1_E	0.0663	50/50	0.0663
219345	CUTHBSP2_C	0.0070	50/50	0.0070
219347	CUTHBSP2_E	0.0662	50/50	0.0662
219349	LDSOLAR E	0.5668	Adder	0.67
219350	CUTHBSP3_C	0.0070	50/50	0.0070
219351	CUTHBSP3_E	0.0663	50/50	0.0663
219357	CUTHBSP4_C	0.0056	50/50	0.0056
219379	CUTHBSP4_E	0.0533	50/50	0.0533
219384	DEPTFDSP1_C	0.0016	50/50	0.0016
219385	DEPTFDSP1_E	0.0152	50/50	0.0152
219388	DEPTFDSP2_C	0.0016	50/50	0.0016
219390	DEPTFDSP2_E	0.0152	50/50	0.0152
219393	DEPTFDSP3_C	0.0040	50/50	0.0040
219394	DEPTFDSP3_E	0.0382	50/50	0.0382
219408	DEPTFDSP4_C	0.0016	50/50	0.0016
219416	DEPTFDSP4_E	0.0152	50/50	0.0152
219566	BURLINSP1_E	0.0777	Adder	0.09
219574	CAMDENSP1_C	0.0395	50/50	0.0395
219575	CAMDENSP1_E	0.3731	50/50	0.3731
219582	COXSCOSP1_E	0.0149	Adder	0.02

219608	WPEMNERT E	0.6473	Adder	0.76
219611	FLORENCE E	1.8496	Adder	2.18
219614	COXSCOSP2_E	0.0149	Adder	0.02
219619	MILLCREEK E	0.4440	Adder	0.52
219623	KINSLEYBEA C	0.0888	50/50	0.0888
219624	KINSLEYBEA E	0.8682	50/50	0.8682
219647	COOPERSOLA E	0.1530	50/50	0.1530
219652	LUMB23SP1_E	0.0394	Adder	0.05
219656	LUMB23SP2_E	0.0394	Adder	0.05
219662	THOROFSP1_C	0.0061	50/50	0.0061
219664	THOROFSP1_E	0.0581	50/50	0.0581
219665	THOROFSP2_C	0.0062	50/50	0.0062
219666	THOROFSP2_E	0.0584	50/50	0.0584
219683	THOSOLAR C	0.0340	50/50	0.0340
219684	THOSOLAR E	0.3214	50/50	0.3214
219687	LUMSOLAR_N E	0.3981	Adder	0.47
219689	LUMSOLAR_S E	0.3949	Adder	0.46
219706	BEAVBRSP1_C	0.0064	50/50	0.0064
219707	BEAVBRSP1_E	0.0607	50/50	0.0607
219708	BEAVBRSP2_C	0.0064	50/50	0.0064
219709	BEAVBRSP2_E	0.0606	50/50	0.0606
219710	CINNAMSP1_C	0.0033	50/50	0.0033
219711	CINNAMSP1_E	0.0315	50/50	0.0315
219712	CINNAMSP2_C	0.0020	50/50	0.0020
219713	CINNAMSP2_E	0.0188	50/50	0.0188
219714	CINNAMSP3_C	0.0033	50/50	0.0033
219715	CINNAMSP3_E	0.0315	50/50	0.0315
219716	CINNAMSP4_C	0.0033	50/50	0.0033
219717	CINNAMSP4_E	0.0313	50/50	0.0313
219718	GLOUCSP1_C	0.0121	50/50	0.0121
219719	GLOUCSP1_E	0.1147	50/50	0.1147
219726	BAT.STORG E	0.3771	50/50	0.3771
219765	PARADISE E	1.2528	50/50	1.2528
219766	PARADISE C	0.1283	50/50	0.1283
227881	GRENWCHG	0.4248	Adder	0.5
227928	V4-067E	0.2699	Adder	0.32
228102	BLE#2 ST (Deactivation : 30/04/2019)	25.8978	Adder	30.47
228261	V4-054E	1.2467	Adder	1.47
228334	MANNMILG	1.8675	Adder	2.2
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.3632	Adder	0.43
228357	V2-046E	2.8680	Adder	3.37
228400	MICK 1CT	2.4200	50/50	2.4200
228423	Q-090 2	40.8139	50/50	40.8139
228712	V2-041E	0.4491	Adder	0.53
228721	V2-035E	0.2617	Adder	0.31
228733	AB1-119 E	0.1471	Adder	0.17
902092	W1-130E	1.1439	Adder	1.35
902432	W2-030 E	1.0131	Adder	1.19
910862	OWENSCORIN E	1.1157	50/50	1.1157
917471	Z2-083	4.1288	50/50	4.1288
919901	AB1-000 1	0.9066	Adder	1.07
919911	AB1-000 2	0.9066	Adder	1.07

919921	AB1-000 3	0.9066	Adder	1.07
923153	AB1-116 E	0.1645	Adder	0.19
923532	AB1-169AC	110.1944	Adder	129.64
924051	AB2-049 C	0.7807	Adder	0.92
924052	AB2-049 E	1.2738	Adder	1.5
924531	AB2-102 C	39.6289	Adder	46.62
924532	AB2-102 E	0.8806	Adder	1.04
924701	AB2-122 C	0.1166	Adder	0.14
924702	AB2-122 E	0.2000	Adder	0.24
925391	AC1-010 C (Suspended)	0.8613	50/50	0.8613
925392	AC1-010 E (Suspended)	1.4877	50/50	1.4877
925441	AC1-016 C (Withdrawn : Unavailable)	0.4982	Adder	0.59
925442	AC1-016 E (Withdrawn : Unavailable)	0.8129	Adder	0.96
925452	AC1-017 E	0.4726	Adder	0.56
925561	AC1-030 C	0.0544	50/50	0.0544
925562	AC1-030 E	0.4975	50/50	0.4975
930001	AB1-001 C	0.1409	Adder	0.17
930002	AB1-001 E	0.2316	Adder	0.27
930242	AB1-063 E	0.1530	50/50	0.1530
932361	AC2-050 C O1	0.7353	Adder	0.87
932362	AC2-050 E O1	1.1997	Adder	1.41
933962	AD1-019 E	1.2831	Adder	1.51
934661	AD1-097 1	1.4627	Adder	1.72
934671	AD1-097 2	1.4627	Adder	1.72
934681	AD1-097 3	1.4627	Adder	1.72
934691	AD1-097 4	0.8658	Adder	1.02
936211	AD2-027 C	0.2697	50/50	0.2697
936212	AD2-027 E	2.5507	50/50	2.5507
936321	AD2-042 C	0.3548	50/50	0.3548
936322	AD2-042 E	3.3735	50/50	3.3735
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.1068	Adder	0.13
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.1471	Adder	0.17
936501	AD2-065 C	0.2156	Adder	0.25
936502	AD2-065 E	0.2974	Adder	0.35
937011	AD2-135 C	0.1193	Adder	0.14
937012	AD2-135 E	0.2028	Adder	0.24
938421	AE1-061 C	0.5519	Adder	0.65
938422	AE1-061 E	0.5519	Adder	0.65
938431	AE1-062 C	1.9897	Adder	2.34
938432	AE1-062 E	1.9897	Adder	2.34
938781	AE1-104 C O1	20.9042	Adder	24.59
938782	AE1-104 E O1	53.4831	Adder	62.92
938871	AE1-115 C	2.2224	Adder	2.61
938872	AE1-115 E	2.2224	Adder	2.61
939301	AE1-161 C	4.1767	Adder	4.91
939302	AE1-161 E	6.2651	Adder	7.37
939501	AE1-179 C O1	6.7419	Adder	7.93
939502	AE1-179 E O1	4.7579	Adder	5.6
939821	AE1-218 C O1	0.1726	Adder	0.2
939822	AE1-218 E O1	0.2588	Adder	0.3

939831	AE1-219 C O1	0.3882	Adder	0.46
939832	AE1-219 E O1	0.5608	Adder	0.66
939931	AE1-229 C O1	18.9647	Adder	22.31
939932	AE1-229 E O1	12.8491	Adder	15.12
940001	AE1-240 C O1	5.5886	Adder	6.57
940002	AE1-240 E O1	3.9891	Adder	4.69
940271	AE2-010	-0.5405	Adder	-0.64
940361	AE2-020 C	17.3972	Adder	20.47
940362	AE2-020 E	81.4552	Adder	95.83
940371	AE2-021 C	17.3972	Adder	20.47
940372	AE2-021 E	81.4552	Adder	95.83
940381	AE2-022 C	10.1484	Adder	11.94
940382	AE2-022 E	47.5155	Adder	55.9
940771	AE2-064 C	0.0539	50/50	0.0539
940772	AE2-064 E	0.4231	50/50	0.4231
940781	AE2-065 C	0.0449	50/50	0.0449
940782	AE2-065 E	0.4089	50/50	0.4089
942101	AE2-222 C O1	14.4205	Adder	16.97
942102	AE2-222 E O1	36.2251	Adder	42.62
942381	AE2-251 C	55.1142	Adder	64.84
942382	AE2-251 E	141.0216	Adder	165.91
943071	AE2-334 C	6.1368	Adder	7.22
943072	AE2-334 E	3.2715	Adder	3.85
943732	AF1-041 E	0.4041	Adder	0.48
944951	AF1-160 C	1.9897	Adder	2.34
944952	AF1-160 E	2.0892	Adder	2.46
945431	AF1-208 C O1	5.5789	Adder	6.56
945432	AF1-208 E O1	3.7193	Adder	4.38
945731	AF1-238 C	9.6736	Adder	11.38
945732	AF1-238 E	14.5103	Adder	17.07
945741	AF1-239 C	2.2761	Adder	2.68
945742	AF1-239 E	3.4142	Adder	4.02
945961	AF1-261	0.1342	Adder	0.16
945971	AF1-262	0.1899	Adder	0.22
945991	AF1-264	0.4835	50/50	0.4835
957221	AF2-016 C	10.8152	Adder	24.01
957222	AF2-016 E	16.2229	Adder	36.01
957251	AF2-019 C	1.4794	Adder	3.28
957252	AF2-019 E	2.2191	Adder	4.93
957261	AF2-020 C	0.8534	Adder	1.89
957262	AF2-020 E	1.2801	Adder	2.84
957281	AF2-022 C	1.8961	Adder	4.21
957282	AF2-022 E	2.8441	Adder	6.31
957291	AF2-023 C O1	2.3559	Adder	5.23
957292	AF2-023 E O1	3.5339	Adder	7.84
957301	AF2-024 C	2.7228	Adder	6.04
957302	AF2-024 E	9.0660	50/50	9.0660
957311	AF2-025 C	0.7159	Adder	1.59
957312	AF2-025 E	1.0738	Adder	2.38
957321	AF2-026 C	1.1655	Adder	2.59
957322	AF2-026 E	1.7482	Adder	3.88
957443	AF2-038 BAT	2.2472	Merchant Transmission	2.2472
957641	AF2-058	0.2664	Adder	0.59

958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.4198	Adder	0.93
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	49.9570	Adder	110.89
958811	AF2-172 C	0.3957	Adder	0.88
958812	AF2-172 E	0.6456	Adder	1.43
958831	AF2-174 C	0.4738	Adder	1.05
958832	AF2-174 E	0.6543	Adder	1.45
959111	AF2-202 C	0.1215	Adder	0.27
959112	AF2-202 E	0.1663	Adder	0.37
999905	MARINGEN 2	0.6753	Adder	0.79
999906	PVILLEG 2	0.2870	Adder	0.34
NEWTON	NEWTON	1.0842	Confirmed LTF	1.0842
FARMERCITY	FARMERCITY	0.0564	Confirmed LTF	0.0564
G-007A	G-007A	10.1294	Confirmed LTF	10.1294
VFT	VFT	15.0930	Confirmed LTF	15.0930
CALDERWOOD	CALDERWOOD	0.4945	Confirmed LTF	0.4945
PRAIRIE	PRAIRIE	2.6011	Confirmed LTF	2.6011
CHEOAH	CHEOAH	0.4975	Confirmed LTF	0.4975
EDWARDS	EDWARDS	0.3539	Confirmed LTF	0.3539
TILTON	TILTON	0.6369	Confirmed LTF	0.6369
MADISON	MADISON	0.0081	Confirmed LTF	0.0081
GIBSON	GIBSON	0.5515	Confirmed LTF	0.5515
BLUEG	BLUEG	1.7534	Confirmed LTF	1.7534
TRIMBLE	TRIMBLE	0.5621	Confirmed LTF	0.5621
CATAWBA	CATAWBA	0.3437	Confirmed LTF	0.3437

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
99842297	228401	MCKLTON	AE	213559	DELCOTAP	PECO	1	PS_P7-1_V2274+P2242_LT	tower	725.0	107.27	109.13	DC	13.37

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219229	EAGLEPT_G3	2.3268	50/50	2.3268
219230	EAGLEPT_G1	4.3891	50/50	4.3891
219231	EAGLEPT_G2	4.3891	50/50	4.3891
219235	EAGLEPT_ST2	1.5864	50/50	1.5864
219258	KINSLEYDEP C	0.1005	50/50	0.1005
219259	KINSLEYDEP E	0.9504	50/50	0.9504
219384	DEPTFDSP1_C	0.0013	50/50	0.0013
219385	DEPTFDSP1_E	0.0126	50/50	0.0126
219388	DEPTFDSP2_C	0.0013	50/50	0.0013
219390	DEPTFDSP2_E	0.0126	50/50	0.0126
219393	DEPTFDSP3_C	0.0033	50/50	0.0033
219394	DEPTFDSP3_E	0.0316	50/50	0.0316
219408	DEPTFDSP4_C	0.0013	50/50	0.0013
219416	DEPTFDSP4_E	0.0126	50/50	0.0126
219662	THOROFSP1_C	0.0054	50/50	0.0054
219664	THOROFSP1_E	0.0515	50/50	0.0515
219665	THOROFSP2_C	0.0054	50/50	0.0054
219666	THOROFSP2_E	0.0515	50/50	0.0515
219683	THOSOLAR C	0.0301	50/50	0.0301
219684	THOSOLAR E	0.2851	50/50	0.2851
227881	GRENWCHG	0.4313	50/50	0.4313
227928	V4-067E	0.1387	Adder	0.16
228102	BLE#2 ST (Deactivation : 30/04/2019)	14.2030	Adder	16.71
228261	V4-054E	0.8440	Adder	0.99
228304	LOGAN	9.8475	50/50	9.8475
228306	PCLP STM	2.5105	50/50	2.5105
228307	PCLP GT	2.5105	50/50	2.5105
228309	CCLP NUG	8.5881	50/50	8.5881
228334	MANNMILG	1.4298	Adder	1.68
228343	QUINTN#1 (Deactivation : 26/04/2020)	0.2694	Adder	0.32
228357	V2-046E	2.1837	Adder	2.57
228400	MICK 1CT	2.1406	50/50	2.1406
228423	Q-090 2	38.6815	50/50	38.6815
228471	VALERO1	0.7244	50/50	0.7244
228472	VALERO2	0.4835	50/50	0.4835
228473	VALERO3	0.4835	50/50	0.4835
228484	VALERO4	0.4261	50/50	0.4261
228712	V2-041E	0.2674	Adder	0.31
228721	V2-035E	0.1795	Adder	0.21
228733	AB1-119 E	0.0679	Adder	0.08

902092	W1-130E	0.7193	Adder	0.85
902432	W2-030 E	0.5344	Adder	0.63
917471	Z2-083	3.9131	50/50	3.9131
919901	AB1-000 1	-0.6115	Adder	-0.72
919911	AB1-000 2	-0.6115	Adder	-0.72
919921	AB1-000 3	-0.6115	Adder	-0.72
923153	AB1-116 E	0.0921	Adder	0.11
923532	AB1-169AC	69.1947	Adder	81.41
924051	AB2-049 C	0.3943	Adder	0.46
924052	AB2-049 E	0.6433	Adder	0.76
924531	AB2-102 C	23.1604	Adder	27.25
924532	AB2-102 E	0.5147	Adder	0.61
924701	AB2-122 C	0.0599	Adder	0.07
924702	AB2-122 E	0.1027	Adder	0.12
930001	AB1-001 C	0.0733	Adder	0.09
930002	AB1-001 E	0.1205	Adder	0.14
933962	AD1-019 E	0.6771	Adder	0.8
936491	AD2-064 C (Withdrawn : 06/16/2020)	0.0493	Adder	0.06
936492	AD2-064 E (Withdrawn : 06/16/2020)	0.0679	Adder	0.08
936501	AD2-065 C	0.0917	Adder	0.11
936502	AD2-065 E	0.1265	Adder	0.15
937011	AD2-135 C	0.0531	Adder	0.06
937012	AD2-135 E	0.0902	Adder	0.11
938421	AE1-061 C	0.3470	Adder	0.41
938422	AE1-061 E	0.3470	Adder	0.41
938431	AE1-062 C	0.8220	Adder	0.97
938432	AE1-062 E	0.8220	Adder	0.97
938781	AE1-104 C O1	11.4644	Adder	13.49
938782	AE1-104 E O1	29.3315	Adder	34.51
938871	AE1-115 C	1.7392	Adder	2.05
938872	AE1-115 E	2.0461	50/50	2.0461
939301	AE1-161 C	2.7156	Adder	3.19
939302	AE1-161 E	4.0734	Adder	4.79
939501	AE1-179 C O1	4.2772	Adder	5.03
939502	AE1-179 E O1	3.0185	Adder	3.55
939821	AE1-218 C O1	0.1055	Adder	0.12
939822	AE1-218 E O1	0.1582	Adder	0.19
939831	AE1-219 C O1	0.2373	Adder	0.28
939832	AE1-219 E O1	0.3428	Adder	0.4
939931	AE1-229 C O1	13.6276	Adder	16.03
939932	AE1-229 E O1	9.2331	Adder	10.86
940001	AE1-240 C O1	3.5604	Adder	4.19
940002	AE1-240 E O1	2.5414	Adder	2.99
940271	AE2-010	-0.2476	Adder	-0.29
940361	AE2-020 C	8.5815	Adder	10.1
940362	AE2-020 E	40.1790	Adder	47.27
940371	AE2-021 C	8.5815	Adder	10.1
940372	AE2-021 E	40.1790	Adder	47.27
940381	AE2-022 C	5.0059	Adder	5.89
940382	AE2-022 E	23.4378	Adder	27.57
940781	AE2-065 C	0.0370	50/50	0.0370
940782	AE2-065 E	0.3372	50/50	0.3372

942101	AE2-222 C O1	7.6114	Adder	8.95
942102	AE2-222 E O1	19.1203	Adder	22.49
942381	AE2-251 C	27.1859	Adder	31.98
942382	AE2-251 E	69.5611	Adder	81.84
943071	AE2-334 C	3.7890	Adder	4.46
943072	AE2-334 E	2.0199	Adder	2.38
943732	AF1-041 E	0.2122	Adder	0.25
944951	AF1-160 C	0.8220	Adder	0.97
944952	AF1-160 E	0.8631	Adder	1.02
945431	AF1-208 C O1	3.9345	Adder	4.63
945432	AF1-208 E O1	2.6230	Adder	3.09
945731	AF1-238 C	5.9403	Adder	6.99
945732	AF1-238 E	8.9104	Adder	10.48
945741	AF1-239 C	1.3977	Adder	1.64
945742	AF1-239 E	2.0966	Adder	2.47
945971	AF1-262	0.1303	Adder	0.15
957221	AF2-016 C	5.7363	Adder	12.73
957222	AF2-016 E	8.6045	Adder	19.1
957251	AF2-019 C	0.8368	Adder	1.86
957252	AF2-019 E	1.2552	Adder	2.79
957261	AF2-020 C	0.5789	Adder	1.29
957262	AF2-020 E	0.8683	Adder	1.93
957281	AF2-022 C	1.1178	Adder	2.48
957282	AF2-022 E	1.6767	Adder	3.72
957291	AF2-023 C O1	4.0932	50/50	4.0932
957292	AF2-023 E O1	6.1398	50/50	6.1398
957301	AF2-024 C	5.3470	50/50	5.3470
957302	AF2-024 E	8.0205	50/50	8.0205
957311	AF2-025 C	0.3777	Adder	0.84
957312	AF2-025 E	0.5666	Adder	1.26
957321	AF2-026 C	0.7008	Adder	1.56
957322	AF2-026 E	1.0512	Adder	2.33
957443	AF2-038 BAT	0.9689	Merchant Transmission	0.9689
957641	AF2-058	0.1804	Adder	0.4
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2302	Adder	0.51
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	27.3977	Adder	60.82
958811	AF2-172 C	0.2588	Adder	0.57
958812	AF2-172 E	0.4223	Adder	0.94
959111	AF2-202 C	0.0824	Adder	0.18
959112	AF2-202 E	0.1128	Adder	0.25
999905	MARINGEN 2	0.3564	Adder	0.42
999906	PVILLEG 2	0.1515	Adder	0.18
NEWTON	NEWTON	0.3073	Confirmed LTF	0.3073
FARMERCITY	FARMERCITY	0.0161	Confirmed LTF	0.0161
G-007A	G-007A	4.2316	Confirmed LTF	4.2316
VFT	VFT	7.5142	Confirmed LTF	7.5142
CALDERWOOD	CALDERWOOD	0.1466	Confirmed LTF	0.1466
PRAIRIE	PRAIRIE	0.7413	Confirmed LTF	0.7413
CHEOAH	CHEOAH	0.1476	Confirmed LTF	0.1476
EDWARDS	EDWARDS	0.0998	Confirmed LTF	0.0998
TILTON	TILTON	0.1796	Confirmed LTF	0.1796

GIBSON	GIBSON	0.1562	Confirmed LTF	0.1562
BLUEG	BLUEG	0.4965	Confirmed LTF	0.4965
TRIMBLE	TRIMBLE	0.1592	Confirmed LTF	0.1592
CATAWBA	CATAWBA	0.1061	Confirmed LTF	0.1061

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
AA1-079	Emilie 230kV	In Service
AB1-000	N/A	N/A
AB1-001	Absecon 12 kV	Engineering and Procurement
AB1-063	Locust St. 13kV	Partially in Service - Under Construction
AB1-116	Egg Harbor Road 12kV	In Service
AB1-119	Tansboro Road 12kV	In Service
AB1-169A	Minotola 138 kV	Withdrawn
AB2-049	Gloucester Township 12kV	Active
AB2-102	Cumberland 230kV	Active
AB2-122	Egg Harbor 12kV	Engineering and Procurement
AC1-010	Gloucester 26kV	Suspended
AC1-016	Burlington 26 kV	Withdrawn
AC1-017	Levittown 13 kV	In Service
AC1-030	Cinnaminson 13kV	In Service
AC2-050	Tabernacle 12kV	Active
AD1-019	Ontario 23 kV	Active
AD1-097	Linwood 230 kV II	Active
AD2-027	Camden Switch 26 kV	In Service
AD2-042	Camden Switch 26 kV II	In Service
AD2-064	Tansboro 12kV	Withdrawn
AD2-065	Berlin 12kV	Engineering and Procurement
AD2-135	Williamstown 12kV	Active
AE1-061	Minotola 12 kV	Active
AE1-062	Silver Lake 69 kV	Active
AE1-104	BL England 138 kV	Active
AE1-115	Churchtown 69 kV	Active
AE1-161	Landis 138 kV	Active
AE1-179	South Millville-Newport 69 kV	Active
AE1-218	Glassboro 12 kV	Engineering and Procurement
AE1-219	Glassboro 12 kV II	Engineering and Procurement
AE1-229	Deepwater-Upper Pittsgrove 138 kV	Active
AE1-240	Carlls Corner-Sherman Avenue 69 kV	Active
AE2-010	Paper Tap 69 kV	Engineering and Procurement
AE2-020	Cardiff 230 kV I	Active
AE2-021	Cardiff 230 kV II	Active
AE2-022	Cardiff 230 kV III	Active
AE2-064	Beaverbrook 13 kV	Under Construction
AE2-065	Deptford 13 kV	Under Construction
AE2-222	Higbee 69 kV	Active

AE2-251	Cardiff 230 kV	Active
AE2-272	Woodstown 12 kV	In Service
AE2-334	Clayton-Williamstown 69 kV	Active
AF1-041	Absecon 12.47 kV	In Service
AF1-126	Cookstown 230 kV	Active
AF1-160	Silver Lake 69 kV	Active
AF1-208	Quinton-Roadstown 69 kV	Active
AF1-238	Sherman Ave. 69 kV	Active
AF1-239	Sherman Ave-Vineland 69 kV	Active
AF1-261	Burlington 26 kV	Active
AF1-262	Upper Pittsgrove 12 kV	Active
AF1-264	Runnemede 13 kV	Active
AF2-016	Lewis 138 kV	Active
AF2-019	Rio Grande 69 kV	Active
AF2-020	Carll's Corner 69 kV	Active
AF2-022	Cumberland 138 kV	Active
AF2-023	Churchtown 69 kV	Active
AF2-024	Mickleton 69 kV	Active
AF2-025	Missouri Ave 69 kV	Active
AF2-026	Sherman Ave 138 kV	Active
AF2-038	Printz 230 kV	Active
AF2-058	Fairton 12 kV	Active
AF2-169	BL England 138 kV	Withdrawn
AF2-172	Whibco 12 kV	Active
AF2-174	Tabernacle 12 kV	Active
AF2-202	Landis 12 V	Active
V2-035	Pittsgrove	In Service
V2-041	Clayville 12kV	In Service
V2-046	Pilesgrave Township 12kV	In Service
V4-054	Fairfield Township 12kV	In Service
V4-067	Cates Road Egg Harbor Township 12kV	In Service
W1-130	Vine Road 12kV	In Service
W2-030	Egg Harbor Township	In Service
Y1-057	Barbadoes 34kV	Deactivated
Z2-083	Mickleton 230kV	In Service

11.8 Contingency Descriptions

Contingency Name	Contingency Definition
PS_P1-2_U-2299_LT	CONTINGENCY 'PS_P1-2_U-2299_LT' /* CAMDEN CUTBERTH DISCONNECT BUS 219754 /* CUTHBERTH SECTION 3 CLOSE LINE FROM BUS 219176 TO BUS 219179 CKT Z /* CUTBERTH MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219170 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO CINN T2 MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219676 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219677 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219724 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO LAWNSIDE END
PS_P2-3_CUTB_2-3_LT	CONTINGENCY 'PS_P2-3_CUTB_2-3_LT' DISCONNECT BUS 219753 /* CUTHBERTH SECTION 2 DISCONNECT BUS 219754 /* CUTHBERTH SECTION 3 CLOSE LINE FROM BUS 219176 TO BUS 219179 CKT Z /* CUTBERTH CLOSE LINE FROM BUS 219177 TO BUS 219178 CKT Z /* CUTHBERT MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219170 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO CINN T2 MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219178 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219177 TO BUS 219677 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219629 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO LAWNSIDE END
PS_P7-1_V2274+P2242_LT	CONTINGENCY 'PS_P7-1_V2274+P2242_LT' /* EAGLE POINT - GLOUCESTER & DEPTFORD - GLOUCESTER DISCONNECT BUS 219757 /* DEPTFORD SECTION 2 TRIP LINE FROM BUS 219110 TO BUS 219128 CKT 1 CLOSE LINE FROM BUS 219255 TO BUS 219256 CKT Z /* DEPTFORD CLOSE LINE FROM BUS 219180 TO BUS 219181 CKT Z /* DEPTFORD DISCONNECT BUS 219760 /* EAGLE POINT SECTION 4 MOVE 8 MW LOAD FROM BUS 219180 TO BUS 219162 /* INTERSTATION TIE TRANSFER LOAD FROM DEPTFORD TO BEAVERBK T1 MOVE 8 MW LOAD FROM BUS 219181 TO BUS 219163 /* INTERSTATION TIE TRANSFER LOAD FROM DEPTFORD TO BEAVERBK T2 MOVE 8 MW LOAD FROM BUS 219255 TO BUS 219162 /* INTERSTATION TIE TRANSFER LOAD FROM DEPTFORD TO BEAVERBK T1 MOVE 8 MW LOAD FROM BUS 219256 TO BUS 219163 /* INTERSTATION TIE TRANSFER LOAD FROM DEPTFORD TO BEAVERBK T2 END

<p>PS_P2-3_CUTB_3-4_LT</p>	<p>CONTINGENCY 'PS_P2-3_CUTB_3-4_LT' DISCONNECT BUS 219754 /* CUTHBERTH SECTION 3 DISCONNECT BUS 219755 /* BUS SECTION 4 CUTHBERT CLOSE LINE FROM BUS 219177 TO BUS 219178 CKT Z /* CUTHBERT CLOSE LINE FROM BUS 219176 TO BUS 219179 CKT Z /* CUTBERTH MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219170 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO CINN T2 MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219178 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219177 TO BUS 219677 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219629 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO LAWNSIDE END</p>
<p>PS_P2-3_CUTB_1-4_LT</p>	<p>CONTINGENCY 'PS_P2-3_CUTB_1-4_LT' DISCONNECT BUS 219108 /* CUTBERTH SECTION 1 DISCONNECT BUS 219755 /* BUS SECTION 4 CUTHBERT CLOSE LINE FROM BUS 219177 TO BUS 219178 CKT Z /* CUTHBERT CLOSE LINE FROM BUS 219176 TO BUS 219179 CKT Z /* CUTBERTH MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219170 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO CINN T2 MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219178 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219177 TO BUS 219677 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219629 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO LAWNSIDE END</p>
<p>PS_P1-2_Z-2305_LT</p>	<p>CONTINGENCY 'PS_P1-2_Z-2305_LT' /* CAMDEN TO CUTHBERT DISCONNECT BUS 219108 /* CUTHBERT SECTION 1 CLOSE LINE FROM BUS 219176 TO BUS 219179 CKT Z /* CUTHBERT MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219170 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO CINN T2 MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219678 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219677 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219724 /* INTERSTATION TIE TRANSFER LOAD FROM CUTHBERT TO LAWNSIDE END</p>

<p>PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK</p>	<p>CONTINGENCY 'PECO_P4_CHICH045/* \$ DELCO \$ CHICH045 \$ STBK' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ CHICH045 \$ STBK DISCONNECT BUS 213627 /* FOULK8 230.00 \$ DELCO \$ CHICH045 \$ STBK END</p>
<p>PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK</p>	<p>CONTINGENCY 'PECO_P4_PEACH215/* \$ CHESCO \$ PEACH215 \$ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ PEACH215 \$ STBK REMOVE MACHINE 1 FROM BUS 200034 /* PCHBTM 2 22.00 \$ CHESCO \$ PEACH215 \$ STBK END</p>
<p>PS_P1-2_D-2282</p>	<p>CONTINGENCY 'PS_P1-2_D-2282' /* CUTHBERT TO GLOUCESTER DISCONNECT BUS 219755 /* BUS SECTION 4 CUTHBERT CLOSE LINE FROM BUS 219177 TO BUS 219178 CKT Z /* CUTHBERT END</p>
<p>PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B</p>	<p>CONTINGENCY 'PECO_P2-2_CHI230B1/* \$ DELCO \$ CHI230B1 \$ B' DISCONNECT BUS 213489 /* CHICHST1 230.00 \$ DELCO \$ CHI230B1 \$ B END</p>
<p>PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L</p>	<p>CONTINGENCY 'PECO_P1-2_5014/* \$ CHESCO \$ 5014 \$ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 \$ CHESCO \$ 5014 \$ L END</p>
<p>Base Case</p>	
<p>PS_P1-2_C-2308</p>	<p>CONTINGENCY 'PS_P1-2_C-2308' /* CUTHBERT TO GLOUCESTER DISCONNECT BUS 219753 /* CUTHBERTH SECTOIN 2 CLOSE LINE FROM BUS 219177 TO BUS 219178 CKT Z /* CUTHBERT END</p>
<p>AE_P7-1 W2275_O2241</p>	<p>CONTINGENCY 'AE_P7-1 W2275_O2241' /* DOUBLE CIRCUIT TOWER W-2275(MICKLETON - DEPTFORD) AND O-2241(MICKLETON - THOROFARE) DISCONNECT BUS 219762 DISCONNECT BUS 219121 CLOSE LINE FROM BUS 219211 TO BUS 219212 CKT Z /*THOROFARE END</p>

PS_P2-3_CUTB_1-2_LT	CONTINGENCY 'PS_P2-3_CUTB_1-2_LT'	
	DISCONNECT BUS 219108	/* CUTHBERTH SECTION 1
	DISCONNECT BUS 219753	/* CUTHBERTH SECTION 2
	CLOSE LINE FROM BUS 219176 TO BUS 219179 CKT Z	/* CUTBERTH
	CLOSE LINE FROM BUS 219177 TO BUS 219178 CKT Z	/* CUTHBERT
	MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219170	/* INTERSTATION TIE
	TRANSFER LOAD FROM CUTHBERT TO CINN T2	
	MOVE 8 MW LOAD FROM BUS 219176 TO BUS 219678	/* INTERSTATION TIE
	TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE	
	MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219678	/* INTERSTATION TIE
	TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE	
	MOVE 8 MW LOAD FROM BUS 219178 TO BUS 219678	/* INTERSTATION TIE
	TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE	
	MOVE 8 MW LOAD FROM BUS 219177 TO BUS 219677	/* INTERSTATION TIE
	TRANSFER LOAD FROM CUTHBERT TO MAPLE SHADE	
MOVE 8 MW LOAD FROM BUS 219179 TO BUS 219629	/* INTERSTATION TIE	
TRANSFER LOAD FROM CUTHBERT TO LAWNSIDE		
END		

12 Short Circuit Analysis

The following Breakers are overdutied

None

13 Affected Systems

None

14 Attachment 1: One Line Diagram