Generation Interconnection
Feasibility Study Report
Queue Position AE1-192

The Interconnection Customer (IC) has proposed a 70 MW Energy (47 MW Capacity) solar generating facility to be located at GPS coordinates Latitude: 37.6368810, Longitude: -75.3732522 in Accomack County, Virginia. At the IC's request, PJM studied the AE1-192 project at both a Primary and Secondary Point of Interconnection. The project was studied at a commercial probability of 53% with the results provided below. The planned in-service date, as requested by the IC during the project kick-off call, is November 30, 2021. This date may not be attainable due to required PJM studies (System Impact and Facilities) and the Transmission Owner's construction schedule.

Point(s) of Interconnection

The Interconnection Customer requested a Primary and Secondary Point of Interconnection (POI) be evaluated for the AE1-192 project.

Primary Point of Interconnection

PJM studied the AE1-192 project as an injection into the Old Dominion Electric Cooperative (ODEC) transmission system at a tap of the Tasley (PSSE bus #232284) to Kellam (PSSE bus #232286) 69 kV circuit #6721 and evaluated it for compliance with reliability criteria for summer peak conditions in 2022. The AE1-192 project will connect with the ODEC transmission system at a new 69 kV three breaker ring bus substation to be constructed adjacent to the Tasley-Kellam 69 kV circuit.

Transmission Owner Scope of Work

Direct Connect and Attachment Facilities Work Scope

The AE1-192 project shall be interconnected on the Tasley - Kellam Line using a new 69 kV 3-breaker ring-bus substation.

Scope

Build a new 69 kV substation with a 3-breaker ring bus. Two of the positions on the ring bus will be transmission line terminals for the tie-in of the Tasley - Kellam 69 kV line (Line 6721) to the substation. The other position will be a terminal configured for the solar facility with a disconnect switch. The POI will be at the terminal frame of the disconnect switch on the IC side.

Estimate: $5,242,000

Construction Time: 24 months

Major Equipment Included in Estimate: The major equipment for the substation will include circuit breakers, disconnect switches, protective relays, foundations, a control building, control wiring, security lighting and fence.

Anti-Islanding Detection and Fault Protection Requirements

In accordance with PJM requirements as specified in Manual 14A, unintentional islanding or anti-islanding requirements can be met with transfer trip, for which a dedicated fiber network is required. Given the configuration of the transmission system in the ODEC area, anti-islanding will be required for line terminals at Oak Hall and Tasley substations, as well as switch locations at the Hallwood, Greenbush and Perdue delivery points. For protective relay coordination, fiber communications is required between the IC and Kellam and Tasley substations.

Scope
Replace the ground wire with OPGW over the 69 kV transmission line between Tasley and Kellam. ODEC recently rebuilt these transmission lines and replacement of the ground wire with OPGW will not require the replacement of any transmission structures.

Estimate: $3,400,000

Construction Time: 24 months

Major Equipment Included in Estimate: Line Differential Relaying at Tasley and Kellam Substations. Replacement of ground wire with OPGW on Lines 6721 and 6703 between Tasley and Kellam.

Replace the ground wire with OPGW over the 69 kV transmission lines between Oak Hall and Tasley. A detailed engineering study will be required during the Facilities Study phase to determine the number of transmission structures requiring replacement to carry the OPWG.

Estimate: $6,045,000 (10% of the structures need replacement)
$21,420,000 (80% of the structures need replacement)

Construction Time: 36 months

Major Equipment Included in Estimate: Auxiliary Switches, Relays, SCADA and Communications Equipment, Replacement of ground wire with OPGW on Lines 6790 and 6778 between Oak Hall and Tasley.

ODEC - AE1-192 Total Costs	Cost (1)	Cost (2)
Attachment Facilities	$ 5,242,000	$ 5,242,000
Direct Connection Network Upgrades	$ 9,445,000	$ 24,820,000
Non Direct Connection Network Upgrades	$ -	$ -
Allocation for New System Upgrades	$ -	$ -
Contribution for Previously Identified Upgrades	$ -	$ -
Total Costs	**$ 14,687,000**	**$ 30,062,000**
(1) 10% structure replacement on Oak Hall - Tasley 69 kV		
(2) 80% structure replacement on Oak Hall - Tasley 69 kV		

The AE1-192 project will be responsible for 100% of the cost of the 69 kV 3-breaker ring-bus substation and anti-islanding detection in this report.

Estimated Cost of Oak Hall Substation Work: It is anticipated that Delmarva Power & Light will have work associated with the anti-islanding detection scope at their Oak Hall Substation. That scope, schedule, and costs will be provided in the System Impact Study Report.

Estimated Schedule

The estimated time is 36 months from engineering start to construction finish, after the PJM three-party Interconnection Service Agreement (ISA) and Interconnection Construction Service Agreement (ICSA) are signed.

Assumptions

ODEC will begin the project only after the PJM ISA and ICSA are fully executed and ODEC receives a written authorization by PJM to commence activities. The estimated time to complete the substation construction work is approximately 24 months after the execution of an ICSA. The schedule for the 69 kV transmission and substation work to accommodate the AE1-192 project would depend on the project start date. The work to accommodate the AE1-192 project will require transmission line outages. ODEC's outage windows for construction are typically in the spring and fall of the year; missing an outage window could result in project delays.

Excepting any operational, governmental and/or environmental regulatory delays, the use of additional resources, such as overtime, premiums for expedited material, and/or contractor labor, may enable ODEC to decrease this construction period. It is also assumed that all right-of-way and easements are secured without impact on anticipated construction start dates.

Metering

PJM Requirements

The IC 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 Sections 24.1 and 24.2. The IC is also required to provide revenue metering and real- time telemetry data to PJM in compliance with the requirements listed in PJM Manuals M-01 and M-14.

ODEC Requirements

ODEC will install revenue grade power quality metering to monitor compliance with industry standards for harmonics and other power quality requirements.

Interconnection Customer Scope of Direct Connection Work

The IC is responsible for all design and construction related to activities on its side of the POI as shown on Attachment 1. 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. The Direct-Connect 69 kV line from the IC's facilities to the interconnection substation must be built in accordance with Rural Utilities Service (RUS) standards or an acceptable national standard, effectively grounded, and appropriately shielded from lightning (refer to RUS Bulletins 1728f-810 and 1724E-200). The IC's transformer shall be connected wye-grounded on the 69kV side and

delta on the low-voltage side. 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.

Summer Peak Analysis - 2022

Transmission Network Impacts

Potential transmission network impacts are as follows:

Generator Deliverability

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

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
501875	232280	OAKHL_69	DP&L	232281	WATTSVIL	DP&L	1	DPL_P1_2_CKT 13789	single	88.0	97.13	119.84	DC	19.99

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	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
501378	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK	breaker	378.0	105.19	105.98	DC	6.61
501379	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH205/* $ CHESCO $ PECO_P4_PEACH205 $ STBK	breaker	378.0	103.08	103.86	DC	6.61
502716	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB-A	tower	790.0	102.77	104.16	DC	24.46
818183	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB-A	tower	790.0	102.77	104.16	DC	24.46
501430	232241	VIENN_69	DP&L	232234	TODD	DP&L	1	DPL_P4-2_DP11	breaker	110.0	98.27	100.7	DC	5.91

Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	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
501182	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	132.61	133.21	DC	10.54
816525	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	132.61	133.21	DC	10.54
501202	231001	EDGEMR	DP&L	231000	CLAY_230	DP&L	1	PECO_P4_LINWO225/*	breaker	804.0	128.11	128.65	DC	9.4

		5						$ DELCO $ PECO_P4_LINWO225 $ STBK						
501123	232234	TODD	DP&L	232233	PRESTON	DP&L	1	DPL_P4-2_DP11	breaker	93.0	134.83	143.09	DC	7.67
502615	923950	AB2-036 TAP	DP&L	232100	CHURCH	DP&L	1	DPL_P7_1_DBL_1NCB-A	tower	154.0	117.02	119.1	DC	7.24
501250	924820	AB2-135 TAP	DP&L	232203	CHURC_69	DP&L	1	DPL_P4-2_DP11	breaker	93.0	121.71	123.57	DC	3.82

Summer Peak Load Flow Analysis Reinforcements

New System Reinforcements

(Upgrades required to mitigate reliability criteria violations, i.e. Network Impacts, initially caused by the addition of this project generation)

ID	Index	Facility	Upgrade Description	Cost
501875	1	**OAKHL_69 69.0 kV - WATTSVIL 69.0 kV Ckt 1**	**DP&L** Description : To mitigate the (DPL) Oak Hall – Watsville 69 kV line (from bus 232280 to bus 232281 ckt 1) overload, it will require increasing the emergency rating of the Oak Hall to Watsville 69 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor. In addition, various terminal reinforcements are required at Wattsville. Time Estimate : 24-48 Months Cost : $1,200,000	$1,200,000
501250	9	**AB2-135 TAP 69.0 kV - CHURC_69 69.0 kV Ckt 1**	**DP&L** Description : To mitigate (DP&L - DP&L) the AB2-135 TAP-CHURC_69 69 kV line (from bus 924820 to bus 232203 ckt 1) overloads, it will require reinforcements to increase the emergency rating of the AB2-135 tap to Church 69 kV line require the rebuild of the circuit, including the installation of new poles and a new disconnect switch. Time Estimate : 36-48 Months Cost : $6,600,000	$6,600,000
816525,501182	5	**CLAY_230 230.0 kV - LINWOOD 230.0 kV Ckt 1**	**DP&L** Description : To mitigate the (DP&L - PECO) CLAY_230-LINWOOD 230 kV line (from bus 231000 to bus 213750 ckt 1) overload will require terminal upgrades at both the Claymont and Linwood Substations. Time Estimate : 12.0 Months Cost : $800,000 **PECO** Description : Replace Linwood CB 225 with a double breaker to eliminate the contingency. Time Estimate : 36.0 Months Cost : $1,400,000	$2,200,000

ID	Index	Facility	Upgrade Description	Cost
501378,501379	2	**GLASGOW 138.0 kV - CECIL138 138.0 kV Ckt 1**	**DP&L** Description : To mitigate the (DPL) Glasgow – Cecil 138 kV line (from bus 231124 to bus 231130 ckt 1) overload, it will require increasing the emergency rating of the Glasgow to Cecil 138 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor. In addition, various terminal reinforcements are required at Glasgow. Time Estimate : 36-60 Months Cost : $5,000,000	$5,000,000
502716,818183	3	**CARTANZA 230.0 kV - SILVER RUN 230.0 kV Ckt 1**	**PJM** Description : Upgrade terminal equipment at Cartanza & Silver Run Substations will be required to mitigate this overload. Time Estimate : 28.0 Months Cost : $1,800,000 **DP&L** Description : To mitigate the (DP&L) CARTANZA-SILVER RUN 230 kV line (from bus 232003 to bus 232013 ckt 1) overload, it will require increasing the emergency rating of the Cartanza to Silver Run 230 kV line by rebuilding the circuit. The rebuild will include the installation of new poles, foundations, insulators, and conductor. It will also require substation reinforcements at Red Lion & Cartanza Substation Time Estimate : 36-60 Months Cost : $77,800,000	$79,600,000
502615	8	**AB2-036 TAP 138.0 kV - CHURCH 138.0 kV Ckt 1**	**DP&L** Description : No Violation. AB2-036 TAP to CHURCH 138 kV Line is the limiting equipment with an emergency rating of 348 MVA.	$0
501430	4	**VIENN_69 69.0 kV - TODD 69.0 kV Ckt 1**	**DP&L** Description : No Violation. The emergency rating of the limiting equipment is 143 MVA.	$0
501202	6	**EDGEMR 5 230.0 kV - CLAY_230 230.0 kV Ckt 1**	**DP&L** Description : To mitigate the (DP&L - DP&L) EDGEMR 5-CLAY_230 230 kV line (from bus 231001 to bus 231000 ckt 1) overload will require terminal upgrades at both the Edgemore and Claymont Substations. Time Estimate : 12.0 Months Cost : $800,000	$800,000

ID	Index	Facility	Upgrade Description	Cost
501123	7	**TODD 69.0 kV - PRESTON 69.0 kV Ckt 1**	**DP&L** Description : To mitigate the (DP&L) TODD-PRESTON 69 kV line (from bus 232234 to bus 232233 ckt 1) overload will require substation reinforcements at Preston Substation and Todd Substation. Time Estimate : 12.0 Months Cost : $67,000	$67,000
			TOTAL COST	**$95,467,000**

Steady-State Voltage Requirements

To be performed during later study phases as required.

Short Circuit

No issues identified.

Stability and Reactive Power Requirement

To be performed during later study phases as required.

Light Load Analysis - 2022

To be performed during later study phases (as required by PJM Manual 14B).

Voltage Drop

A voltage drop analysis will be performed as part of the System Impact Study. If the addition of the facility causes a violation, a STATCOM may be required at the interconnection substation.

System Impact Study Costs

Since the amount of generation on the ODEC system will exceed load present at various times during the year, and that operation of the ODEC system cannot be controlled separately from the rest of PJM, the following study tasks will need to be performed during the System Impact Study phase of the project in order to detect possible problems:

- Construction of a dynamic model of new generators;
- Harmonic Study;
- Steady State Analysis of Island Combinations;
- Temporary Overvoltage Analysis.

The estimated cost of these studies is **$120,000** and will be added to the cost of a system impact study.

Delivery of Energy Portion of Interconnection Request

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. Only the most severely overloaded conditions are listed. 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 will study all overload conditions associated with the overloaded element(s) identified.

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
502238	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	operation	804.0	123.46	124.06	DC	10.58
817426	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	operation	804.0	123.46	124.06	DC	10.58
502242	231001	EDGEMR 5	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-84	operation	804.0	121.66	122.24	DC	10.24
502250	231001	EDGEMR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	operation	804.0	120.56	121.1	DC	9.43
817446	231001	EDGEMR 5	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-84	operation	804.0	121.66	122.24	DC	10.24
502410	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P1-2_5014/* $ CHESCO $ PECO_P1-2_5014 $ L	operation	378.0	103.05	103.84	DC	6.61
502418	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	CKT 23030B	operation	790.0	101.43	102.79	DC	23.93
817761	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	CKT 23030B	operation	790.0	101.43	102.79	DC	23.93
502409	232004	MILF_230	DP&L	232000	STEELE	DP&L	1	CKT 23032B	operation	550.0	102.55	103.86	DC	15.93
502416	232128	PINEY138	DP&L	232127	LORETTO	DP&L	1	DPL_P1_2_CKT 23002	operation	158.0	84.32	102.82	DC	29.24
501874	232280	OAKHL_69	DP&L	232281	WATTSVIL	DP&L	1	DPL_P1_2_CKT 13789	operation	88.0	121.93	155.76	DC	29.78

Secondary Point of Interconnection

PJM studied the AE1-192 project into the ODEC system at a tap of the Tasley (PSSE bus # 232284) to Belle Haven (PSSE bus #232903) 69 kV circuit #6703 and evaluated it for compliance with reliability criteria for summer peak conditions in 2022. Harmonic distortion limits may preclude interconnection on line 6703 as the STATCOM at Bell Haven is also a source of harmonic current.

Summer Peak Analysis - 2022

Transmission Network Impacts

Potential transmission network impacts are as follows:

Generator Deliverability

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

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
482966	232280	OAKHL_69	DP&L	232281	WATTSVIL	DP&L	1	DPL_P1_2_CKT 13789	single	88.0	97.13	119.84	DC	19.99

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	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
482370	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK	breaker	378.0	105.19	105.98	DC	6.61
482371	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH205/* $ CHESCO $ PECO_P4_PEACH205 $ STBK	breaker	378.0	103.08	103.86	DC	6.61
483909	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB-A	tower	790.0	102.76	104.15	DC	24.46
797067	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB-A	tower	790.0	102.76	104.15	DC	24.46
482426	232241	VIENN_69	DP&L	232234	TODD	DP&L	1	DPL_P4-2_DP11	breaker	110.0	98.35	100.77	DC	5.91

Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	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
482120	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	132.61	133.21	DC	10.54
795527	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	132.61	133.21	DC	10.54
482157	231001	EDGEMR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	128.11	128.65	DC	9.4
482049	232234	TODD	DP&L	232233	PRESTON	DP&L	1	DPL_P4-2_DP11	breaker	93.0	134.94	143.21	DC	7.67
483802	923950	AB2-036 TAP	DP&L	232100	CHURCH	DP&L	1	DPL_P7_1_DBL_1NCB-A	tower	154.0	117.04	119.12	DC	7.24
482217	924820	AB2-135 TAP	DP&L	232203	CHURC_69	DP&L	1	DPL_P4-2_DP11	breaker	93.0	121.7	123.56	DC	3.82

Delivery of Energy Portion of Interconnection Request

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. Only the most severely overloaded conditions are listed. 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 will study all overload conditions associated with the overloaded element(s) identified.

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
483362	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	operation	804.0	123.46	124.06	DC	10.58
796362	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	operation	804.0	123.46	124.06	DC	10.58
483369	231001	EDGEMR 5	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-84	operation	804.0	121.66	122.24	DC	10.24
483373	231001	EDGEMR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	operation	804.0	120.56	121.1	DC	9.43
796380	231001	EDGEMR 5	DP&L	213750	LINWOOD	PECO	1	PECO_P1-2_220-84	operation	804.0	121.66	122.24	DC	10.24
483531	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P1-2_5014/* $ CHESCO $ PECO_P1-2_5014 $ L	operation	378.0	103.05	103.84	DC	6.61
483533	232004	MILF_230	DP&L	232000	STEELE	DP&L	1	CKT 23032B	operation	550.0	102.44	103.74	DC	15.93
483535	232128	PINEY138	DP&L	232127	LORETTO	DP&L	1	DPL_P1_2_CKT 23002	operation	158.0	84.32	102.82	DC	29.24
482965	232280	OAKHL_69	DP&L	232281	WATTSVIL	DP&L	1	DPL_P1_2_CKT 13789	operation	88.0	121.93	155.76	DC	29.78

Primary POI Flow Gate Details

The following appendices contain additional information about each flowgate presented in the body of the report. For each appendix, a description of the flowgate and its contingency was included for convenience. However, the intent of the appendix section is to provide more information on which projects/generators have contributions to the flowgate in question. Although this information is not used "as is" for cost allocation purposes, it can be used to gage other generators impact. It should be noted the generator contributions presented in the appendices sections are full contributions, whereas in the body of the report, those contributions take into consideration the commercial probability of each project.

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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
501875	232280	OAKHL_69	DP&L	232281	WATTSVIL	DP&L	1	DPL_P1_2_CKT 13789	single	88.0	97.13	119.84	DC	19.99

Bus #	Bus	MW Impact
232905	BAYVIEW1	0.82
232912	OH NUG1	1.07
232913	OH NUG2	1.06
232914	OH NUG3	1.07
232915	OH NUG4	1.07
232916	OH NUG5	1.07
232917	OH NUG6	1.07
232918	OH NUG7	1.07
232921	TASLEY2G	1.41
232926	CRISFLD1	0.15
901003	W1-003 C	0.57
901013	W1-004 C	0.57
901023	W1-005 C	0.57
901033	W1-006 C	0.57
904210	V4-022 C	0.81
917081	Z2-012 C	0.5
918831	AA1-102	0.55
920321	AA2-130	0.03
924361	AB2-084 C	0.09
924681	AB2-120 C	6.67
926911	AC1-177	0.38
939154	AE1-145 CBAT	2.52
939621	AE1-192 C O1	19.99
BAYOU	BAYOU	0.06
BIG_CAJUN1	BIG_CAJUN1	0.1
BIG_CAJUN2	BIG_CAJUN2	0.2
BLUEG	BLUEG	0.31
CALDERWOOD	CALDERWOOD	0.03
CANNELTON	CANNELTON	0.02
CARR	CARR	0.02
CATAWBA	CATAWBA	0.02

Bus #	Bus	MW Impact
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.07
COFFEEN	COFFEEN	0.03
COTTONWOOD	COTTONWOOD	0.25
DEARBORN	DEARBORN	0.05
DUCKCREEK	DUCKCREEK	0.07
EDWARDS	EDWARDS	0.03
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.02
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.07
NEWTON	NEWTON	0.08
PRAIRIE	PRAIRIE	0.16
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.04
TILTON	TILTON	0.04
TRIMBLE	TRIMBLE	0.03
TVA	TVA	0.11
UNIONPOWER	UNIONPOWER	0.05

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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
501378	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK	breaker	378.0	105.19	105.98	DC	6.61

Bus #	Bus	MW Impact
231131	BLOOM ENRGY	0.39
231708	CHRIST3	1.11
231902	DC CT7	1.04
231906	DC3 NUG	1.21
231907	DC10	0.3
231915	DC CT6	0.93
901004	W1-003 E	0.43
901014	W1-004 E	0.43
901024	W1-005 E	0.43
901034	W1-006 E	0.43
904210	V4-022 C	0.18
904212	V4-022 E	0.29
907052	X1-032 E	0.38
909411	X2-083	0.05
910572	X3-008 E	1.23
910821	X3-066 C	0.04
910822	X3-066 E	0.46
913361	Y1-079 C	0.07
913362	Y1-079 E	0.71
913412	Y1-080 E	0.2

Bus #	Bus	MW Impact
915542	Y3-058 E	0.89
917082	Z2-012 E	1.17
917432	Z2-076 E	0.19
917442	Z2-077 E	0.19
917581	Z2-097 C	0.07
917582	Z2-097 E	0.19
919831	AA2-069	39.1
923921	AB2-032 C	1.75
923922	AB2-032 E	0.82
923951	AB2-036 C	3.97
923952	AB2-036 E	6.49
923961	AB2-037 C	7.46
923962	AB2-037 E	12.19
924191	AB2-063 C	0.94
924192	AB2-063 E	1.53
924362	AB2-084 E	0.59
924681	AB2-120 C	3.59
924682	AB2-120 E	5.85
924781	AB2-130 C O1	3.06
924782	AB2-130 E O1	5.0
924801	AB2-133 C O1	3.21
924802	AB2-133 E O1	4.07
924821	AB2-135 C	3.69
924822	AB2-135 E	4.2
924831	AB2-136 C	2.44
924832	AB2-136 E	2.58
924971	AB2-153 C	0.98
924972	AB2-153 E	1.59
925092	AB2-166 E	0.33
925111	AB2-168 C	0.85
925112	AB2-168 E	1.17
925151	AB2-172 C	1.89
925152	AB2-172 E	3.08
925251	AB2-179 C	6.18
925252	AB2-179 E	2.04
925261	AB2-180 C	1.33
925262	AB2-180 E	0.57
925271	AB2-185 C	1.61
925272	AB2-185 E	0.69
925731	AC1-049 C	0.14
925732	AC1-049 E	0.23
926131	AC1-091 C	0.65
926132	AC1-091 E	1.07
926141	AC1-092 C	0.65
926142	AC1-092 E	1.07
926151	AC1-093 C	0.62
926152	AC1-093 E	1.02
926161	AC1-094 C	0.52
926162	AC1-094 E	0.86
926171	AC1-095 C	0.33
926172	AC1-095 E	0.53
926911	AC1-177	0.38
927031	AC1-190 C	3.47
927032	AC1-190 E	1.49

Bus #	Bus	MW Impact
927191	AC1-213 C	0.3
927192	AC1-213 E	0.2
927321	AC1-229 C	0.35
927322	AC1-229 E	0.57
930202	AB1-056 E O1	17.04
930881	AB1-137 C	0.39
930882	AB1-137 E	0.17
930921	AB1-141 C	1.73
930922	AB1-141 E	0.81
930931	AB1-142 C	1.73
930932	AB1-142 E	0.81
931111	AB1-162 C	0.78
931112	AB1-162 E	1.27
931261	AB1-176 C	0.42
931262	AB1-176 E	0.69
932082	AC2-018 E1	1.93
932092	AC2-018 E2	1.93
932161	AC2-023 C	2.53
932162	AC2-023 E	1.85
933631	AC2-185 C	1.32
933632	AC2-185 E	2.16
933641	AC2-186 C	1.82
933642	AC2-186 E	2.97
935121	AD1-145	0.91
936351	AD2-045 C O1	1.49
936352	AD2-045 E O1	0.96
936451	AD2-059 C	0.03
936452	AD2-059 E	0.1
936611	AD2-076 C O1	2.33
936612	AD2-076 E O1	3.8
936691	AD2-088 C O1	1.71
936692	AD2-088 E O1	1.14
937281	AD2-167	3.87
938251	AE1-038 C O1	0.73
938252	AE1-038 E O1	1.01
938651	AE1-087 C	0.84
938652	AE1-087 E	0.21
938811	AE1-107 C	4.94
938812	AE1-107 E	3.52
938891	AE1-117 C O1	4.47
938892	AE1-117 E O1	11.93
938901	AE1-118 C O1	4.47
938902	AE1-118 E O1	11.93
939151	AE1-145 C1	1.13
939152	AE1-145 C2	0.76
939153	AE1-145 E	0.02
939361	AE1-167 C O1	0.57
939362	AE1-167 E O1	0.47
939621	AE1-192 C O1	4.44
939622	AE1-192 E O1	2.17
BAYOU	BAYOU	0.75
BIG_CAJUN1	BIG_CAJUN1	1.16
BIG_CAJUN2	BIG_CAJUN2	2.34
BLUEG	BLUEG	3.49

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.4
CANNELTON	CANNELTON	0.21
CATAWBA	CATAWBA	0.26
CBM-N	CBM-N	0.6
CHEOAH	CHEOAH	0.36
CHILHOWEE	CHILHOWEE	0.13
CHOCTAW	CHOCTAW	0.78
COFFEEN	COFFEEN	0.37
COTTONWOOD	COTTONWOOD	2.99
DEARBORN	DEARBORN	0.58
DUCKCREEK	DUCKCREEK	0.8
EDWARDS	EDWARDS	0.36
ELMERSMITH	ELMERSMITH	0.37
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	4.04
GIBSON	GIBSON	0.14
HAMLET	HAMLET	0.89
NEWTON	NEWTON	0.96
NYISO	NYISO	2.59
O-066A	O-066A	1.5
PRAIRIE	PRAIRIE	1.82
SANTEETLA	SANTEETLA	0.11
SMITHLAND	SMITHLAND	0.15
TATANKA	TATANKA	0.44
TILTON	TILTON	0.44
TRIMBLE	TRIMBLE	0.39
TVA	TVA	1.26
UNIONPOWER	UNIONPOWER	0.56
VFT	VFT	9.2

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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
818183	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB-A	tower	790.0	102.77	104.16	DC	24.46

Bus #	Bus	MW Impact
232003	CARTANZA	31.32
232616	GEN FOOD	1.54
232901	NORTHST	4.66
232904	IR4	22.88
232920	IR10	0.88
232922	MR3	10.34
901004	W1-003 E	1.59
901014	W1-004 E	1.59
901024	W1-005 E	1.59
901034	W1-006 E	1.59
904210	V4-022 C	0.66
904212	V4-022 E	1.08
907052	X1-032 E	1.39
910572	X3-008 E	4.02

Bus #	Bus	MW Impact
910822	X3-066 E	0.87
913362	Y1-079 E	1.65
913412	Y1-080 E	0.7
915542	Y3-058 E	3.18
917082	Z2-012 E	4.33
917431	Z2-076 C	0.22
917432	Z2-076 E	0.71
917441	Z2-077 C	0.22
917442	Z2-077 E	0.71
917582	Z2-097 E	0.3
919831	AA2-069	298.17
923921	AB2-032 C	3.0
923922	AB2-032 E	1.41
923951	AB2-036 C	9.47
923952	AB2-036 E	15.5
923961	AB2-037 C	24.84
923962	AB2-037 E	40.58
924191	AB2-063 C	1.79
924192	AB2-063 E	2.91
924362	AB2-084 E	2.16
924681	AB2-120 C	13.28
924682	AB2-120 E	21.67
924781	AB2-130 C O1	10.9
924782	AB2-130 E O1	17.79
924801	AB2-133 C O1	5.08
924802	AB2-133 E O1	6.44
924821	AB2-135 C	6.3
924822	AB2-135 E	7.18
924831	AB2-136 C	8.15
924832	AB2-136 E	8.64
924971	AB2-153 C	1.68
924972	AB2-153 E	2.74
925092	AB2-166 E	1.2
925151	AB2-172 C	6.16
925152	AB2-172 E	10.05
925261	AB2-180 C	4.79
925262	AB2-180 E	2.05
925271	AB2-185 C	3.72
925272	AB2-185 E	1.59
925731	AC1-049 C	0.53
925732	AC1-049 E	0.87
926911	AC1-177	1.39
927031	AC1-190 C	11.38
927032	AC1-190 E	4.88
927191	AC1-213 C	1.1
927192	AC1-213 E	0.72
927321	AC1-229 C	1.35
927322	AC1-229 E	2.17
930201	AB1-056 C O1	3.56
930202	AB1-056 E O1	66.12
930881	AB1-137 C	1.5
930882	AB1-137 E	0.64
930921	AB1-141 C	2.98
930922	AB1-141 E	1.39

Bus #	Bus	MW Impact
930931	AB1-142 C	2.98
930932	AB1-142 E	1.39
931111	AB1-162 C	1.49
931112	AB1-162 E	2.43
931261	AB1-176 C	0.8
931262	AB1-176 E	1.32
932161	AC2-023 C	9.02
932162	AC2-023 E	6.57
933641	AC2-186 C	5.5
933642	AC2-186 E	8.97
935121	AD1-145	3.2
936351	AD2-045 C O1	2.89
936352	AD2-045 E O1	1.85
936611	AD2-076 C O1	4.31
936612	AD2-076 E O1	7.04
936691	AD2-088 C O1	6.07
936692	AD2-088 E O1	4.05
938251	AE1-038 C O1	5.55
938252	AE1-038 E O1	7.67
938651	AE1-087 C	2.75
938652	AE1-087 E	0.69
938891	AE1-117 C O1	17.11
938892	AE1-117 E O1	45.62
938901	AE1-118 C O1	17.1
938902	AE1-118 E O1	45.61
939151	AE1-145 C1	4.19
939152	AE1-145 C2	2.8
939153	AE1-145 E	0.07
939361	AE1-167 C O1	2.1
939362	AE1-167 E O1	1.75
939621	AE1-192 C O1	16.42
939622	AE1-192 E O1	8.04
BAYOU	BAYOU	0.45
BIG_CAJUN1	BIG_CAJUN1	0.69
BIG_CAJUN2	BIG_CAJUN2	1.39
BLUEG	BLUEG	2.14
CALDERWOOD	CALDERWOOD	0.23
CANNELTON	CANNELTON	0.13
CARR	CARR	0.17
CATAWBA	CATAWBA	0.15
CHEOAH	CHEOAH	0.21
CHILHOWEE	CHILHOWEE	0.08
CHOCTAW	CHOCTAW	0.46
COFFEEN	COFFEEN	0.23
COTTONWOOD	COTTONWOOD	1.78
DEARBORN	DEARBORN	0.38
DUCKCREEK	DUCKCREEK	0.49
EDWARDS	EDWARDS	0.23
ELMERSMITH	ELMERSMITH	0.22
FARMERCITY	FARMERCITY	0.15
G-007	G-007	0.5
GIBSON	GIBSON	0.09
HAMLET	HAMLET	0.49
NEWTON	NEWTON	0.59

Bus #	Bus	MW Impact
O-066	O-066	1.65
PRAIRIE	PRAIRIE	1.11
RENSSELAER	RENSSELAER	0.13
SANTEETLA	SANTEETLA	0.06
SMITHLAND	SMITHLAND	0.09
TATANKA	TATANKA	0.27
TILTON	TILTON	0.27
TRIMBLE	TRIMBLE	0.24
TVA	TVA	0.75
UNIONPOWER	UNIONPOWER	0.33

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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
501430	232241	VIENN_69	DP&L	232234	TODD	DP&L	1	DPL_P4-2_DP11	breaker	110.0	98.27	100.7	DC	5.91

Bus #	Bus	MW Impact
232907	VN8	2.6
232919	VN10	0.25
901004	W1-003 E	0.38
901014	W1-004 E	0.38
901024	W1-005 E	0.38
901034	W1-006 E	0.38
904210	V4-022 C	0.16
904212	V4-022 E	0.26
907052	X1-032 E	0.35
915541	Y3-058 C	0.1
915542	Y3-058 E	1.06
917082	Z2-012 E	1.05
917432	Z2-076 E	0.14
917442	Z2-077 E	0.14
924362	AB2-084 E	0.54
924681	AB2-120 C	3.2
924682	AB2-120 E	5.21
924781	AB2-130 C O1	3.11
924782	AB2-130 E O1	5.08
925092	AB2-166 E	0.34
925261	AB2-180 C	1.6
925262	AB2-180 E	0.69
925731	AC1-049 C	0.1
925732	AC1-049 E	0.16
926911	AC1-177	0.36
927191	AC1-213 C	0.32
927192	AC1-213 E	0.21
927321	AC1-229 C	0.23
927322	AC1-229 E	0.37
930202	AB1-056 E O1	10.47
930881	AB1-137 C	0.26
930882	AB1-137 E	0.11
932161	AC2-023 C	3.31

Bus #	Bus	MW Impact
932162	AC2-023 E	2.41
935121	AD1-145	0.81
936691	AD2-088 C O1	1.75
936692	AD2-088 E O1	1.16
938651	AE1-087 C	7.68
938652	AE1-087 E	1.92
938891	AE1-117 C O1	2.95
938892	AE1-117 E O1	7.87
938901	AE1-118 C O1	2.96
938902	AE1-118 E O1	7.9
939151	AE1-145 C1	1.01
939152	AE1-145 C2	0.67
939153	AE1-145 E	0.02
939361	AE1-167 C O1	0.51
939362	AE1-167 E O1	0.42
939621	AE1-192 C O1	3.97
939622	AE1-192 E O1	1.94
BAYOU	BAYOU	0.06
BIG_CAJUN1	BIG_CAJUN1	0.09
BIG_CAJUN2	BIG_CAJUN2	0.18
BLUEG	BLUEG	0.28
CALDERWOOD	CALDERWOOD	0.03
CANNELTON	CANNELTON	0.02
CARR	CARR	0.01
CATAWBA	CATAWBA	0.02
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.06
COFFEEN	COFFEEN	0.03
COTTONWOOD	COTTONWOOD	0.23
DEARBORN	DEARBORN	0.05
DUCKCREEK	DUCKCREEK	0.06
EDWARDS	EDWARDS	0.03
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.02
G-007	G-007	0.03
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.06
NEWTON	NEWTON	0.08
O-066	O-066	0.12
PRAIRIE	PRAIRIE	0.14
RENSSELAER	RENSSELAER	0.01
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.03
TILTON	TILTON	0.03
TRIMBLE	TRIMBLE	0.03
TVA	TVA	0.1
UNIONPOWER	UNIONPOWER	0.04

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ID	FROM	FROM	FROM	TO	TO BUS	TO	CKT	CONT NAME	Type	Rating	PRE	POST	AC|DC	MW

	BUS#	BUS	BUS AREA	BUS#		BUS AREA	ID			MVA	PROJECT LOADING %	PROJECT LOADING %		IMPACT
816525	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	132.61	133.21	DC	10.54

Bus #	Bus	MW Impact
231505	HR4	14.07
231708	CHRIST3	3.58
231900	EM5	34.23
231901	EM4	9.56
231908	HR1	6.87
231909	HR2	7.0
231910	HR3	6.87
231916	EM3	4.81
231917	EM10	0.8
901004	W1-003 E	0.68
901014	W1-004 E	0.68
901024	W1-005 E	0.68
901034	W1-006 E	0.68
904210	V4-022 C	0.29
904212	V4-022 E	0.47
907052	X1-032 E	0.6
910572	X3-008 E	1.94
910822	X3-066 E	0.62
913362	Y1-079 E	1.02
913412	Y1-080 E	0.32
915542	Y3-058 E	1.41
917082	Z2-012 E	1.87
917432	Z2-076 E	0.3
917442	Z2-077 E	0.3
917582	Z2-097 E	0.24
919831	AA2-069	60.64
923921	AB2-032 C	2.27
923922	AB2-032 E	1.07
923951	AB2-036 C	5.75
923952	AB2-036 E	9.41
923961	AB2-037 C	12.65
923962	AB2-037 E	20.66
924191	AB2-063 C	1.26
924192	AB2-063 E	2.05
924362	AB2-084 E	0.94
924681	AB2-120 C	5.72
924682	AB2-120 E	9.33
924781	AB2-130 C O1	4.84
924782	AB2-130 E O1	7.9
924801	AB2-133 C O1	4.09
924802	AB2-133 E O1	5.19
924821	AB2-135 C	4.83
924822	AB2-135 E	5.51
924831	AB2-136 C	3.85
924832	AB2-136 E	4.08
924971	AB2-153 C	1.27
924972	AB2-153 E	2.07

Bus #	Bus	MW Impact
925092	AB2-166 E	0.53
925111	AB2-168 C	0.71
925112	AB2-168 E	0.97
925151	AB2-172 C	2.97
925152	AB2-172 E	4.84
925251	AB2-179 C	6.63
925252	AB2-179 E	2.19
925261	AB2-180 C	2.12
925262	AB2-180 E	0.91
925271	AB2-185 C	2.3
925272	AB2-185 E	0.99
925731	AC1-049 C	0.22
925732	AC1-049 E	0.36
926131	AC1-091 C	0.99
926132	AC1-091 E	1.63
926141	AC1-092 C	0.99
926142	AC1-092 E	1.63
926151	AC1-093 C	0.94
926152	AC1-093 E	1.55
926161	AC1-094 C	0.79
926162	AC1-094 E	1.31
926171	AC1-095 C	0.5
926172	AC1-095 E	0.81
926911	AC1-177	0.61
927031	AC1-190 C	5.46
927032	AC1-190 E	2.34
927191	AC1-213 C	0.48
927192	AC1-213 E	0.32
927321	AC1-229 C	0.56
927322	AC1-229 E	0.9
930202	AB1-056 E O1	27.0
930881	AB1-137 C	0.62
930882	AB1-137 E	0.27
930921	AB1-141 C	2.26
930922	AB1-141 E	1.05
930931	AB1-142 C	2.26
930932	AB1-142 E	1.05
931111	AB1-162 C	1.05
931112	AB1-162 E	1.71
931261	AB1-176 C	0.56
931262	AB1-176 E	0.93
932161	AC2-023 C	4.03
932162	AC2-023 E	2.94
933631	AC2-185 C	2.01
933632	AC2-185 E	3.28
933641	AC2-186 C	2.77
933642	AC2-186 E	4.52
935121	AD1-145	1.43
936351	AD2-045 C O1	2.02
936352	AD2-045 E O1	1.29
936451	AD2-059 C	0.06
936452	AD2-059 E	0.18
936611	AD2-076 C O1	3.1
936612	AD2-076 E O1	5.06

Bus #	Bus	MW Impact
936691	AD2-088 C O1	2.7
936692	AD2-088 E O1	1.8
938251	AE1-038 C O1	1.13
938252	AE1-038 E O1	1.56
938651	AE1-087 C	1.32
938652	AE1-087 E	0.33
938811	AE1-107 C	5.64
938812	AE1-107 E	4.02
938891	AE1-117 C O1	7.09
938892	AE1-117 E O1	18.9
938901	AE1-118 C O1	7.09
938902	AE1-118 E O1	18.9
939151	AE1-145 C1	1.81
939152	AE1-145 C2	1.2
939153	AE1-145 E	0.03
939361	AE1-167 C O1	0.9
939362	AE1-167 E O1	0.75
939621	AE1-192 C O1	7.08
939622	AE1-192 E O1	3.46
BAYOU	BAYOU	0.04
BIG_CAJUN1	BIG_CAJUN1	0.06
BIG_CAJUN2	BIG_CAJUN2	0.13
BLUEG	BLUEG	0.33
CALDERWOOD	CALDERWOOD	0.02
CANNELTON	CANNELTON	0.02
CARR	CARR	0.61
CBM-S2	CBM-S2	0.01
CHEOAH	CHEOAH	0.01
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.04
COFFEEN	COFFEEN	0.03
COTTONWOOD	COTTONWOOD	0.17
CPLE	CPLE	0.02
DEARBORN	DEARBORN	0.09
DUCKCREEK	DUCKCREEK	0.08
EDWARDS	EDWARDS	0.04
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.02
G-007	G-007	2.2
GIBSON	GIBSON	0.01
NEWTON	NEWTON	0.09
O-066	O-066	7.53
PRAIRIE	PRAIRIE	0.15
RENSSELAER	RENSSELAER	0.48
SANTEETLA	SANTEETLA	0.0
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.04
TILTON	TILTON	0.04
TRIMBLE	TRIMBLE	0.04
TVA	TVA	0.07
UNIONPOWER	UNIONPOWER	0.03

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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
501202	231001	EDGEMR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	128.11	128.65	DC	9.4

Bus #	Bus	MW Impact
231505	HR4	14.05
231708	CHRIST3	2.72
231900	EM5	34.17
231901	EM4	7.2
231908	HR1	5.18
231910	HR3	5.18
231919	CHRIST1	0.87
231920	CHRIST2	0.87
901004	W1-003 E	0.61
901014	W1-004 E	0.61
901024	W1-005 E	0.61
901034	W1-006 E	0.61
904210	V4-022 C	0.26
904212	V4-022 E	0.42
907052	X1-032 E	0.54
909411	X2-083	0.09
910572	X3-008 E	1.72
910822	X3-066 E	0.54
913362	Y1-079 E	0.9
913412	Y1-080 E	0.29
915542	Y3-058 E	1.26
917082	Z2-012 E	1.67
917432	Z2-076 E	0.27
917442	Z2-077 E	0.27
917582	Z2-097 E	0.21
919831	AA2-069	54.01
923921	AB2-032 C	1.98
923922	AB2-032 E	0.93
923951	AB2-036 C	5.08
923952	AB2-036 E	8.31
923961	AB2-037 C	11.33
923962	AB2-037 E	18.51
924191	AB2-063 C	1.1
924192	AB2-063 E	1.8
924362	AB2-084 E	0.84
924681	AB2-120 C	5.1
924682	AB2-120 E	8.32
924781	AB2-130 C O1	4.32
924782	AB2-130 E O1	7.04
924801	AB2-133 C O1	3.56
924802	AB2-133 E O1	4.51
924821	AB2-135 C	4.21
924822	AB2-135 E	4.81
924831	AB2-136 C	3.43
924832	AB2-136 E	3.63
924971	AB2-153 C	1.11
924972	AB2-153 E	1.81

Bus #	Bus	MW Impact
925092	AB2-166 E	0.47
925111	AB2-168 C	0.59
925112	AB2-168 E	0.8
925151	AB2-172 C	2.64
925152	AB2-172 E	4.31
925251	AB2-179 C	5.63
925252	AB2-179 E	1.86
925261	AB2-180 C	1.89
925262	AB2-180 E	0.81
925271	AB2-185 C	2.03
925272	AB2-185 E	0.87
925731	AC1-049 C	0.2
925732	AC1-049 E	0.32
926131	AC1-091 C	0.88
926132	AC1-091 E	1.45
926141	AC1-092 C	0.88
926142	AC1-092 E	1.45
926151	AC1-093 C	0.83
926152	AC1-093 E	1.37
926161	AC1-094 C	0.7
926162	AC1-094 E	1.16
926171	AC1-095 C	0.45
926172	AC1-095 E	0.72
926911	AC1-177	0.54
927031	AC1-190 C	4.86
927032	AC1-190 E	2.08
927191	AC1-213 C	0.43
927192	AC1-213 E	0.28
927321	AC1-229 C	0.5
927322	AC1-229 E	0.8
930202	AB1-056 E O1	24.07
930881	AB1-137 C	0.55
930882	AB1-137 E	0.24
930921	AB1-141 C	1.97
930922	AB1-141 E	0.92
930931	AB1-142 C	1.97
930932	AB1-142 E	0.92
931111	AB1-162 C	0.92
931112	AB1-162 E	1.5
931261	AB1-176 C	0.49
931262	AB1-176 E	0.81
932161	AC2-023 C	3.6
932162	AC2-023 E	2.62
933631	AC2-185 C	1.79
933632	AC2-185 E	2.91
933641	AC2-186 C	2.46
933642	AC2-186 E	4.01
935121	AD1-145	1.27
936351	AD2-045 C O1	1.77
936352	AD2-045 E O1	1.13
936451	AD2-059 C	0.05
936452	AD2-059 E	0.15
936611	AD2-076 C O1	2.71
936612	AD2-076 E O1	4.42

Bus #	Bus	MW Impact
936691	AD2-088 C O1	2.41
936692	AD2-088 E O1	1.6
938251	AE1-038 C O1	1.01
938252	AE1-038 E O1	1.39
938651	AE1-087 C	1.18
938652	AE1-087 E	0.29
938811	AE1-107 C	4.71
938812	AE1-107 E	3.36
938891	AE1-117 C O1	6.32
938892	AE1-117 E O1	16.85
938901	AE1-118 C O1	6.32
938902	AE1-118 E O1	16.85
939151	AE1-145 C1	1.61
939152	AE1-145 C2	1.07
939153	AE1-145 E	0.03
939361	AE1-167 C O1	0.81
939362	AE1-167 E O1	0.67
939621	AE1-192 C O1	6.31
939622	AE1-192 E O1	3.09
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.04
BIG_CAJUN2	BIG_CAJUN2	0.07
BLUEG	BLUEG	0.23
CALDERWOOD	CALDERWOOD	0.01
CANNELTON	CANNELTON	0.01
CARR	CARR	0.54
CBM-S2	CBM-S2	0.03
CHEOAH	CHEOAH	0.01
CHILHOWEE	CHILHOWEE	0.0
CHOCTAW	CHOCTAW	0.02
COFFEEN	COFFEEN	0.02
COTTONWOOD	COTTONWOOD	0.1
CPLE	CPLE	0.02
DEARBORN	DEARBORN	0.07
DUCKCREEK	DUCKCREEK	0.06
EDWARDS	EDWARDS	0.03
ELMERSMITH	ELMERSMITH	0.02
FARMERCITY	FARMERCITY	0.01
G-007	G-007	1.95
GIBSON	GIBSON	0.01
NEWTON	NEWTON	0.06
O-066	O-066	6.68
PRAIRIE	PRAIRIE	0.1
RENSSELAER	RENSSELAER	0.43
SANTEETLA	SANTEETLA	0.0
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.03
TILTON	TILTON	0.03
TRIMBLE	TRIMBLE	0.03
TVA	TVA	0.04
UNIONPOWER	UNIONPOWER	0.01

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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
501123	232234	TODD	DP&L	232233	PRESTON	DP&L	1	DPL_P4-2_DP11	breaker	93.0	134.83	143.09	DC	7.67

Bus #	Bus	MW Impact
232905	BAYVIEW1	0.21
232907	VN8	3.37
232912	OH NUG1	0.53
232914	OH NUG3	0.53
232915	OH NUG4	0.53
232916	OH NUG5	0.53
232919	VN10	0.32
232921	TASLEY2G	0.36
232926	CRISFLD1	0.18
292089	T-011	0.07
293670	O-025 C	0.12
901003	W1-003 C	0.26
901004	W1-003 E	0.5
901013	W1-004 C	0.26
901014	W1-004 E	0.5
901023	W1-005 C	0.26
901024	W1-005 E	0.5
901033	W1-006 C	0.26
901034	W1-006 E	0.5
904210	V4-022 C	0.21
904212	V4-022 E	0.34
907052	X1-032 E	0.46
910571	X3-008 C	0.44
910572	X3-008 E	4.67
913411	Y1-080 C	0.05
913412	Y1-080 E	0.55
915541	Y3-058 C	0.13
915542	Y3-058 E	1.38
917081	Z2-012 C	0.13
917082	Z2-012 E	1.36
917432	Z2-076 E	0.18
917442	Z2-077 E	0.18
918831	AA1-102	0.67
920321	AA2-130	0.04
924361	AB2-084 C	0.07
924362	AB2-084 E	0.71
924681	AB2-120 C	4.15
924682	AB2-120 E	6.77
924781	AB2-130 C O1	4.04
924782	AB2-130 E O1	6.59
924831	AB2-136 C	7.56
924832	AB2-136 E	8.02
925091	AB2-166 C	0.04
925092	AB2-166 E	0.45
925151	AB2-172 C	7.15
925152	AB2-172 E	11.67
925261	AB2-180 C	2.08
925262	AB2-180 E	0.89

Bus #	Bus	MW Impact
925731	AC1-049 C	0.13
925732	AC1-049 E	0.21
926911	AC1-177	0.46
927031	AC1-190 C	12.58
927032	AC1-190 E	5.39
927191	AC1-213 C	0.41
927192	AC1-213 E	0.27
927321	AC1-229 C	0.3
927322	AC1-229 E	0.48
930202	AB1-056 E O1	13.59
930881	AB1-137 C	0.33
930882	AB1-137 E	0.14
932161	AC2-023 C	4.29
932162	AC2-023 E	3.13
935121	AD1-145	1.05
936691	AD2-088 C O1	2.27
936692	AD2-088 E O1	1.51
938651	AE1-087 C	6.02
938652	AE1-087 E	1.51
938891	AE1-117 C O1	3.83
938892	AE1-117 E O1	10.21
938901	AE1-118 C O1	3.84
938902	AE1-118 E O1	10.25
939151	AE1-145 C1	1.31
939152	AE1-145 C2	0.88
939153	AE1-145 E	0.02
939361	AE1-167 C O1	0.66
939362	AE1-167 E O1	0.55
939621	AE1-192 C O1	5.15
939622	AE1-192 E O1	2.52
BAYOU	BAYOU	0.08
BIG_CAJUN1	BIG_CAJUN1	0.12
BIG_CAJUN2	BIG_CAJUN2	0.25
BLUEG	BLUEG	0.38
CALDERWOOD	CALDERWOOD	0.04
CANNELTON	CANNELTON	0.02
CARR	CARR	0.02
CATAWBA	CATAWBA	0.03
CHEOAH	CHEOAH	0.04
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.08
COFFEEN	COFFEEN	0.04
COTTONWOOD	COTTONWOOD	0.32
DEARBORN	DEARBORN	0.07
DUCKCREEK	DUCKCREEK	0.09
EDWARDS	EDWARDS	0.04
ELMERSMITH	ELMERSMITH	0.04
FARMERCITY	FARMERCITY	0.03
G-007	G-007	0.04
GIBSON	GIBSON	0.02
HAMLET	HAMLET	0.09
NEWTON	NEWTON	0.11
O-066	O-066	0.17
PRAIRIE	PRAIRIE	0.2

Bus #	Bus	MW Impact
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.02
TATANKA	TATANKA	0.05
TILTON	TILTON	0.05
TRIMBLE	TRIMBLE	0.04
TVA	TVA	0.13
UNIONPOWER	UNIONPOWER	0.06

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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
502615	923950	AB2-036 TAP	DP&L	232100	CHURCH	DP&L	1	DPL_P7_1_DBL_1NCB-A	tower	154.0	117.02	119.1	DC	7.24

Bus #	Bus	MW Impact
232902	EASTMUNI	1.25
232907	VN8	2.84
232914	OH NUG3	0.5
232915	OH NUG4	0.5
232916	OH NUG5	0.5
232919	VN10	0.17
232926	CRISFLD1	0.16
293670	O-025 C	0.1
901003	W1-003 C	0.25
901004	W1-003 E	0.47
901013	W1-004 C	0.25
901014	W1-004 E	0.47
901023	W1-005 C	0.25
901024	W1-005 E	0.47
901033	W1-006 C	0.25
901034	W1-006 E	0.47
904210	V4-022 C	0.2
904212	V4-022 E	0.32
907052	X1-032 E	0.42
910571	X3-008 C	0.13
910572	X3-008 E	1.41
913411	Y1-080 C	0.02
913412	Y1-080 E	0.24
915541	Y3-058 C	0.09
915542	Y3-058 E	0.98
917082	Z2-012 E	1.28
917432	Z2-076 E	0.19
917442	Z2-077 E	0.19
918831	AA1-102	0.61
919831	AA2-069	23.54
920321	AA2-130	0.03
923951	AB2-036 C	13.22
923952	AB2-036 E	21.63
923961	AB2-037 C	11.92
923962	AB2-037 E	19.48

Bus #	Bus	MW Impact
924361	AB2-084 C	0.06
924362	AB2-084 E	0.65
924681	AB2-120 C	3.92
924682	AB2-120 E	6.4
924781	AB2-130 C O1	3.08
924782	AB2-130 E O1	5.02
924831	AB2-136 C	2.79
924832	AB2-136 E	2.96
925092	AB2-166 E	0.36
925151	AB2-172 C	2.16
925152	AB2-172 E	3.52
925261	AB2-180 C	1.48
925262	AB2-180 E	0.63
925731	AC1-049 C	0.14
925732	AC1-049 E	0.23
926911	AC1-177	0.43
927031	AC1-190 C	3.97
927032	AC1-190 E	1.7
927191	AC1-213 C	0.33
927192	AC1-213 E	0.22
927321	AC1-229 C	0.35
927322	AC1-229 E	0.56
930202	AB1-056 E O1	16.72
930881	AB1-137 C	0.39
930882	AB1-137 E	0.17
932161	AC2-023 C	2.83
932162	AC2-023 E	2.06
935121	AD1-145	0.85
936691	AD2-088 C O1	1.72
936692	AD2-088 E O1	1.15
938251	AE1-038 C O1	0.44
938252	AE1-038 E O1	0.61
938651	AE1-087 C	1.82
938652	AE1-087 E	0.45
938891	AE1-117 C O1	4.41
938892	AE1-117 E O1	11.76
938901	AE1-118 C O1	4.41
938902	AE1-118 E O1	11.77
939151	AE1-145 C1	1.24
939152	AE1-145 C2	0.83
939153	AE1-145 E	0.02
939361	AE1-167 C O1	0.62
939362	AE1-167 E O1	0.52
939621	AE1-192 C O1	4.86
939622	AE1-192 E O1	2.38
BAYOU	BAYOU	0.09
BIG_CAJUN1	BIG_CAJUN1	0.14
BIG_CAJUN2	BIG_CAJUN2	0.28
BLUEG	BLUEG	0.44
CALDERWOOD	CALDERWOOD	0.05
CANNELTON	CANNELTON	0.03
CARR	CARR	0.02
CATAWBA	CATAWBA	0.03
CHEOAH	CHEOAH	0.04

Bus #	Bus	MW Impact
CHILHOWEE	CHILHOWEE	0.02
CHOCTAW	CHOCTAW	0.09
COFFEEN	COFFEEN	0.05
COTTONWOOD	COTTONWOOD	0.36
DEARBORN	DEARBORN	0.08
DUCKCREEK	DUCKCREEK	0.1
EDWARDS	EDWARDS	0.05
ELMERSMITH	ELMERSMITH	0.05
FARMERCITY	FARMERCITY	0.03
G-007	G-007	0.03
GIBSON	GIBSON	0.02
HAMLET	HAMLET	0.1
NEWTON	NEWTON	0.12
O-066	O-066	0.16
PRAIRIE	PRAIRIE	0.22
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.02
TATANKA	TATANKA	0.05
TILTON	TILTON	0.05
TRIMBLE	TRIMBLE	0.05
TVA	TVA	0.15
UNIONPOWER	UNIONPOWER	0.07

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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
501250	924820	AB2-135 TAP	DP&L	232203	CHURC_69	DP&L	1	DPL_P4-2_DP11	breaker	93.0	121.71	123.57	DC	3.82

Bus #	Bus	MW Impact
232813	VAUGHN	0.11
232900	DEMECSMY	0.81
232910	NRG_G1	2.05
232911	NRG_G2	2.05
901004	W1-003 E	0.25
901014	W1-004 E	0.25
901024	W1-005 E	0.25
901034	W1-006 E	0.25
901411	W1-062	0.83
904210	V4-022 C	0.1
904212	V4-022 E	0.17
907052	X1-032 E	0.22
915542	Y3-058 E	0.48
917082	Z2-012 E	0.68
917432	Z2-076 E	0.12
917442	Z2-077 E	0.12
924362	AB2-084 E	0.34
924681	AB2-120 C	2.07
924682	AB2-120 E	3.39
924781	AB2-130 C O1	2.0

Bus #	Bus	MW Impact
924782	AB2-130 E O1	3.27
924821	AB2-135 C	21.03
924822	AB2-135 E	23.99
925092	AB2-166 E	0.19
925261	AB2-180 C	0.73
925262	AB2-180 E	0.31
925731	AC1-049 C	0.09
925732	AC1-049 E	0.14
926131	AC1-091 C	0.52
926132	AC1-091 E	0.86
926141	AC1-092 C	0.52
926142	AC1-092 E	0.86
926151	AC1-093 C	0.49
926152	AC1-093 E	0.81
926161	AC1-094 C	0.42
926162	AC1-094 E	0.69
926171	AC1-095 C	0.26
926172	AC1-095 E	0.42
926911	AC1-177	0.22
927191	AC1-213 C	0.17
927192	AC1-213 E	0.11
927321	AC1-229 C	0.22
927322	AC1-229 E	0.35
930202	AB1-056 E O1	10.42
930881	AB1-137 C	0.24
930882	AB1-137 E	0.1
932161	AC2-023 C	1.33
932162	AC2-023 E	0.97
933631	AC2-185 C	1.06
933632	AC2-185 E	1.73
933641	AC2-186 C	2.79
933642	AC2-186 E	4.56
935121	AD1-145	0.67
936691	AD2-088 C O1	1.11
936692	AD2-088 E O1	0.74
938891	AE1-117 C O1	2.79
938892	AE1-117 E O1	7.45
938901	AE1-118 C O1	2.79
938902	AE1-118 E O1	7.45
939151	AE1-145 C1	0.66
939152	AE1-145 C2	0.44
939153	AE1-145 E	0.01
939361	AE1-167 C O1	0.33
939362	AE1-167 E O1	0.27
939621	AE1-192 C O1	2.56
939622	AE1-192 E O1	1.26
BAYOU	BAYOU	0.07
BIG_CAJUN1	BIG_CAJUN1	0.11
BIG_CAJUN2	BIG_CAJUN2	0.22
BLUEG	BLUEG	0.35
CALDERWOOD	CALDERWOOD	0.04
CANNELTON	CANNELTON	0.02
CARR	CARR	0.01
CATAWBA	CATAWBA	0.02

Bus #	Bus	MW Impact
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.07
COFFEEN	COFFEEN	0.04
COTTONWOOD	COTTONWOOD	0.29
DEARBORN	DEARBORN	0.06
DUCKCREEK	DUCKCREEK	0.08
EDWARDS	EDWARDS	0.04
ELMERSMITH	ELMERSMITH	0.04
FARMERCITY	FARMERCITY	0.02
G-007	G-007	0.02
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.08
NEWTON	NEWTON	0.1
O-066	O-066	0.1
PRAIRIE	PRAIRIE	0.18
RENSSELAER	RENSSELAER	0.01
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.04
TILTON	TILTON	0.04
TRIMBLE	TRIMBLE	0.04
TVA	TVA	0.12
UNIONPOWER	UNIONPOWER	0.05

Contingency Name	Contingency Definition
PECO_P1-2_220-84	CONTINGENCY 'PECO_P1-2_220-84' /* $ DELCO $ 220-84 $ LB TRIP BRANCH FROM BUS 213750 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 $ DELCO $ 220-84 $ L END
CKT 23030B	CONTINGENCY 'CKT 23030B' OPEN LINE FROM BUS 232002 TO BUS 232013 CIRCUIT 1 /CEDAR CREEK - SILVER RUN 230 END
DPL_P4-2_DP11	CONTINGENCY 'DPL_P4-2_DP11' /*STEELE BUS BREAKER TO MILFORD DISCONNECT BRANCH FROM BUS 232004 TO BUS 232000 CKT 1 /*MILFORD STEELE 230 230 DISCONNECT BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 /*STEELE VIENNA 230 230 END

Contingency Name	Contingency Definition
PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	CONTINGENCY 'PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 $ DELCO $ PECO_P4_LINWO225 $ STBK DISCONNECT BUS 213892 /* PHLISL87 230.00 $ DELCO $ PECO_P4_LINWO225 $ STBK DISCONNECT BUS 213888 /* PHLISCT1 18.00 $ DELCO $ PECO_P4_LINWO225 $ STBK DISCONNECT BUS 213889 /* PHLISCT2 18.00 $ DELCO $ PECO_P4_LINWO225 $ STBK END
CKT 23032B	CONTINGENCY 'CKT 23032B' OPEN LINE FROM BUS 232013 TO BUS 232003 CIRCUIT 1 /SILVER RUN - CARTANZA 230 END
PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK	CONTINGENCY 'PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 $ CHESCO $ PECO_P4_PEACH215 $ STBK REMOVE MACHINE 1 FROM BUS 200034 /* PCHBTM 2 22.00 $ CHESCO $ PECO_P4_PEACH215 $ STBK END
DPL_P1_2_CKT 23002	CONTINGENCY 'DPL_P1_2_CKT 23002' DISCONNECT BUS 232007 /INDIAN RIVER - PINEY GROVE 230 & PNY GRV AT-20 XFMER END
PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	CONTINGENCY 'PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 $ DELCO $ 220-85 $ L END
DPL_P7_1_DBL_1NCB-A	CONTINGENCY 'DPL_P7_1_DBL_1NCB-A' /* #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 END
PECO_P4_PEACH205/* $ CHESCO $ PECO_P4_PEACH205 $ STBK	CONTINGENCY 'PECO_P4_PEACH205/* $ CHESCO $ PECO_P4_PEACH205 $ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200066 CKT 1 /* PCHBTM2S 500.00 PCHBTM1N 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK TRIP BRANCH FROM BUS 200064 TO BUS 200065 CKT Z1 /* PCHBTM1S 500.00 PCHBTM2S 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK TRIP BRANCH FROM BUS 200013 TO BUS 200066 CKT Z1 /* PCHBTM2N 500.00 PCHBTM1N 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK END

Contingency Name	Contingency Definition
PECO_P1-2_5014/* $ CHESCO $ PECO_P1-2_5014 $ L	CONTINGENCY 'PECO_P1-2_5014/* $ CHESCO $ PECO_P1-2_5014 $ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 $ CHESCO $ PECO_P1-2_5014 $ L END
DPL_P1_2_CKT 13789	CONTINGENCY 'DPL_P1_2_CKT 13789' OPEN LINE FROM BUS 232132 TO BUS 232133 CIRCUIT 1 /OAK HALL - WATTSVILLE 138 END

Secondary POI Flow Gate Details

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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
482966	232280	OAKHL_69	DP&L	232281	WATTSVIL	DP&L	1	DPL_P1_2_CKT 13789	single	88.0	97.13	119.84	DC	19.99

Bus #	Bus	MW Impact
232905	BAYVIEW1	0.82
232912	OH NUG1	1.07
232913	OH NUG2	1.06
232914	OH NUG3	1.07
232915	OH NUG4	1.07
232916	OH NUG5	1.07
232917	OH NUG6	1.07
232918	OH NUG7	1.07
232921	TASLEY2G	1.41
232926	CRISFLD1	0.15
901003	W1-003 C	0.57
901013	W1-004 C	0.57
901023	W1-005 C	0.57
901033	W1-006 C	0.57
904210	V4-022 C	0.81
917081	Z2-012 C	0.5
918831	AA1-102	0.55
920321	AA2-130	0.03
924361	AB2-084 C	0.09
924681	AB2-120 C	6.67
926911	AC1-177	0.38
939154	AE1-145 CBAT	2.52
939621	AE1-192 C O2	19.99
BAYOU	BAYOU	0.06
BIG_CAJUN1	BIG_CAJUN1	0.1
BIG_CAJUN2	BIG_CAJUN2	0.2
BLUEG	BLUEG	0.31
CALDERWOOD	CALDERWOOD	0.03

Bus #	Bus	MW Impact
CANNELTON	CANNELTON	0.02
CARR	CARR	0.02
CATAWBA	CATAWBA	0.02
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.07
COFFEEN	COFFEEN	0.03
COTTONWOOD	COTTONWOOD	0.25
DEARBORN	DEARBORN	0.05
DUCKCREEK	DUCKCREEK	0.07
EDWARDS	EDWARDS	0.03
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.02
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.07
NEWTON	NEWTON	0.08
PRAIRIE	PRAIRIE	0.16
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.04
TILTON	TILTON	0.04
TRIMBLE	TRIMBLE	0.03
TVA	TVA	0.11
UNIONPOWER	UNIONPOWER	0.05

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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
482370	231124	GLASGOW	DP&L	231130	CECIL138	DP&L	1	PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK	breaker	378.0	105.19	105.98	DC	6.61

Bus #	Bus	MW Impact
231131	BLOOM ENRGY	0.39
231708	CHRIST3	1.11
231902	DC CT7	1.04
231906	DC3 NUG	1.21
231907	DC10	0.3
231915	DC CT6	0.93
901004	W1-003 E	0.43
901014	W1-004 E	0.43
901024	W1-005 E	0.43
901034	W1-006 E	0.43
904210	V4-022 C	0.18
904212	V4-022 E	0.29
907052	X1-032 E	0.38
909411	X2-083	0.05
910572	X3-008 E	1.23
910821	X3-066 C	0.04
910822	X3-066 E	0.46

Bus #	Bus	MW Impact
913361	Y1-079 C	0.07
913362	Y1-079 E	0.71
913412	Y1-080 E	0.2
915542	Y3-058 E	0.89
917082	Z2-012 E	1.17
917432	Z2-076 E	0.19
917442	Z2-077 E	0.19
917581	Z2-097 C	0.07
917582	Z2-097 E	0.19
919831	AA2-069	39.1
923921	AB2-032 C	1.75
923922	AB2-032 E	0.82
923951	AB2-036 C	3.97
923952	AB2-036 E	6.49
923961	AB2-037 C	7.46
923962	AB2-037 E	12.19
924191	AB2-063 C	0.94
924192	AB2-063 E	1.53
924362	AB2-084 E	0.59
924681	AB2-120 C	3.59
924682	AB2-120 E	5.85
924781	AB2-130 C O1	3.06
924782	AB2-130 E O1	5.0
924801	AB2-133 C O1	3.21
924802	AB2-133 E O1	4.07
924821	AB2-135 C	3.69
924822	AB2-135 E	4.2
924831	AB2-136 C	2.44
924832	AB2-136 E	2.58
924971	AB2-153 C	0.98
924972	AB2-153 E	1.59
925092	AB2-166 E	0.33
925111	AB2-168 C	0.85
925112	AB2-168 E	1.17
925151	AB2-172 C	1.89
925152	AB2-172 E	3.08
925251	AB2-179 C	6.18
925252	AB2-179 E	2.04
925261	AB2-180 C	1.33
925262	AB2-180 E	0.57
925271	AB2-185 C	1.61
925272	AB2-185 E	0.69
925731	AC1-049 C	0.14
925732	AC1-049 E	0.23
926131	AC1-091 C	0.65
926132	AC1-091 E	1.07
926141	AC1-092 C	0.65
926142	AC1-092 E	1.07
926151	AC1-093 C	0.62
926152	AC1-093 E	1.02
926161	AC1-094 C	0.52
926162	AC1-094 E	0.86
926171	AC1-095 C	0.33
926172	AC1-095 E	0.53

Bus #	Bus	MW Impact
926911	AC1-177	0.38
927031	AC1-190 C	3.47
927032	AC1-190 E	1.49
927191	AC1-213 C	0.3
927192	AC1-213 E	0.2
927321	AC1-229 C	0.35
927322	AC1-229 E	0.57
930202	AB1-056 E O1	17.04
930881	AB1-137 C	0.39
930882	AB1-137 E	0.17
930921	AB1-141 C	1.73
930922	AB1-141 E	0.81
930931	AB1-142 C	1.73
930932	AB1-142 E	0.81
931111	AB1-162 C	0.78
931112	AB1-162 E	1.27
931261	AB1-176 C	0.42
931262	AB1-176 E	0.69
932082	AC2-018 E1	1.93
932092	AC2-018 E2	1.93
932161	AC2-023 C	2.53
932162	AC2-023 E	1.85
933631	AC2-185 C	1.32
933632	AC2-185 E	2.16
933641	AC2-186 C	1.82
933642	AC2-186 E	2.97
935121	AD1-145	0.91
936351	AD2-045 C O1	1.49
936352	AD2-045 E O1	0.96
936451	AD2-059 C	0.03
936452	AD2-059 E	0.1
936611	AD2-076 C O1	2.33
936612	AD2-076 E O1	3.8
936691	AD2-088 C O1	1.71
936692	AD2-088 E O1	1.14
937281	AD2-167	3.87
938251	AE1-038 C O2	0.73
938252	AE1-038 E O2	1.01
938651	AE1-087 C	0.84
938652	AE1-087 E	0.21
938811	AE1-107 C	4.94
938812	AE1-107 E	3.52
938891	AE1-117 C O2	4.47
938892	AE1-117 E O2	11.93
938901	AE1-118 C O2	4.47
938902	AE1-118 E O2	11.93
939151	AE1-145 C1	1.13
939152	AE1-145 C2	0.76
939153	AE1-145 E	0.02
939361	AE1-167 C O2	0.57
939362	AE1-167 E O2	0.47
939621	AE1-192 C O2	4.44
939622	AE1-192 E O2	2.17
BAYOU	BAYOU	0.75

Bus #	Bus	MW Impact
BIG_CAJUN1	BIG_CAJUN1	1.16
BIG_CAJUN2	BIG_CAJUN2	2.34
BLUEG	BLUEG	3.49
CALDERWOOD	CALDERWOOD	0.4
CANNELTON	CANNELTON	0.21
CATAWBA	CATAWBA	0.26
CBM-N	CBM-N	0.6
CHEOAH	CHEOAH	0.36
CHILHOWEE	CHILHOWEE	0.13
CHOCTAW	CHOCTAW	0.78
COFFEEN	COFFEEN	0.37
COTTONWOOD	COTTONWOOD	2.99
DEARBORN	DEARBORN	0.58
DUCKCREEK	DUCKCREEK	0.8
EDWARDS	EDWARDS	0.36
ELMERSMITH	ELMERSMITH	0.37
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	4.04
GIBSON	GIBSON	0.14
HAMLET	HAMLET	0.89
NEWTON	NEWTON	0.96
NYISO	NYISO	2.59
O-066A	O-066A	1.5
PRAIRIE	PRAIRIE	1.82
SANTEETLA	SANTEETLA	0.11
SMITHLAND	SMITHLAND	0.15
TATANKA	TATANKA	0.44
TILTON	TILTON	0.44
TRIMBLE	TRIMBLE	0.39
TVA	TVA	1.26
UNIONPOWER	UNIONPOWER	0.56
VFT	VFT	9.2

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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
797067	232003	CARTANZA	DP&L	232013	SILVER RUN	PJM	1	DPL_P7_1_DBL_1NCB-A	tower	790.0	102.76	104.15	DC	24.46

Bus #	Bus	MW Impact
232003	CARTANZA	31.32
232616	GEN FOOD	1.54
232901	NORTHST	4.66
232904	IR4	22.88
232920	IR10	0.88
232922	MR3	10.34
901004	W1-003 E	1.59
901014	W1-004 E	1.59
901024	W1-005 E	1.59
901034	W1-006 E	1.59
904210	V4-022 C	0.66

Bus #	Bus	MW Impact
904212	V4-022 E	1.08
907052	X1-032 E	1.39
910572	X3-008 E	4.02
910822	X3-066 E	0.87
913362	Y1-079 E	1.65
913412	Y1-080 E	0.7
915542	Y3-058 E	3.18
917082	Z2-012 E	4.33
917431	Z2-076 C	0.22
917432	Z2-076 E	0.71
917441	Z2-077 C	0.22
917442	Z2-077 E	0.71
917582	Z2-097 E	0.3
919831	AA2-069	298.17
923921	AB2-032 C	3.0
923922	AB2-032 E	1.41
923951	AB2-036 C	9.47
923952	AB2-036 E	15.5
923961	AB2-037 C	24.84
923962	AB2-037 E	40.58
924191	AB2-063 C	1.79
924192	AB2-063 E	2.91
924362	AB2-084 E	2.16
924681	AB2-120 C	13.28
924682	AB2-120 E	21.67
924781	AB2-130 C O1	10.9
924782	AB2-130 E O1	17.79
924801	AB2-133 C O1	5.08
924802	AB2-133 E O1	6.44
924821	AB2-135 C	6.3
924822	AB2-135 E	7.18
924831	AB2-136 C	8.15
924832	AB2-136 E	8.64
924971	AB2-153 C	1.68
924972	AB2-153 E	2.74
925092	AB2-166 E	1.2
925151	AB2-172 C	6.16
925152	AB2-172 E	10.05
925261	AB2-180 C	4.79
925262	AB2-180 E	2.05
925271	AB2-185 C	3.72
925272	AB2-185 E	1.59
925731	AC1-049 C	0.53
925732	AC1-049 E	0.87
926911	AC1-177	1.39
927031	AC1-190 C	11.38
927032	AC1-190 E	4.88
927191	AC1-213 C	1.1
927192	AC1-213 E	0.72
927321	AC1-229 C	1.35
927322	AC1-229 E	2.17
930201	AB1-056 C O1	3.56
930202	AB1-056 E O1	66.12
930881	AB1-137 C	1.5

Bus #	Bus	MW Impact
930882	AB1-137 E	0.64
930921	AB1-141 C	2.98
930922	AB1-141 E	1.39
930931	AB1-142 C	2.98
930932	AB1-142 E	1.39
931111	AB1-162 C	1.49
931112	AB1-162 E	2.43
931261	AB1-176 C	0.8
931262	AB1-176 E	1.32
932161	AC2-023 C	9.02
932162	AC2-023 E	6.57
933641	AC2-186 C	5.5
933642	AC2-186 E	8.97
935121	AD1-145	3.2
936351	AD2-045 C O1	2.89
936352	AD2-045 E O1	1.85
936611	AD2-076 C O1	4.31
936612	AD2-076 E O1	7.04
936691	AD2-088 C O1	6.07
936692	AD2-088 E O1	4.05
938251	AE1-038 C O2	5.55
938252	AE1-038 E O2	7.67
938651	AE1-087 C	2.75
938652	AE1-087 E	0.69
938891	AE1-117 C O2	17.09
938892	AE1-117 E O2	45.58
938901	AE1-118 C O2	17.1
938902	AE1-118 E O2	45.59
939151	AE1-145 C1	4.19
939152	AE1-145 C2	2.8
939153	AE1-145 E	0.07
939361	AE1-167 C O2	2.1
939362	AE1-167 E O2	1.75
939621	AE1-192 C O2	16.42
939622	AE1-192 E O2	8.04
BAYOU	BAYOU	0.45
BIG_CAJUN1	BIG_CAJUN1	0.69
BIG_CAJUN2	BIG_CAJUN2	1.39
BLUEG	BLUEG	2.14
CALDERWOOD	CALDERWOOD	0.23
CANNELTON	CANNELTON	0.13
CARR	CARR	0.17
CATAWBA	CATAWBA	0.15
CHEOAH	CHEOAH	0.21
CHILHOWEE	CHILHOWEE	0.08
CHOCTAW	CHOCTAW	0.46
COFFEEN	COFFEEN	0.23
COTTONWOOD	COTTONWOOD	1.78
DEARBORN	DEARBORN	0.38
DUCKCREEK	DUCKCREEK	0.49
EDWARDS	EDWARDS	0.23
ELMERSMITH	ELMERSMITH	0.22
FARMERCITY	FARMERCITY	0.15
G-007	G-007	0.5

Bus #	Bus	MW Impact
GIBSON	GIBSON	0.09
HAMLET	HAMLET	0.49
NEWTON	NEWTON	0.59
O-066	O-066	1.65
PRAIRIE	PRAIRIE	1.11
RENSSELAER	RENSSELAER	0.13
SANTEETLA	SANTEETLA	0.06
SMITHLAND	SMITHLAND	0.09
TATANKA	TATANKA	0.27
TILTON	TILTON	0.27
TRIMBLE	TRIMBLE	0.24
TVA	TVA	0.75
UNIONPOWER	UNIONPOWER	0.33

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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
482426	232241	VIENN_69	DP&L	232234	TODD	DP&L	1	DPL_P4-2_DP11	breaker	110.0	98.35	100.77	DC	5.91

Bus #	Bus	MW Impact
232907	VN8	2.6
232919	VN10	0.25
901004	W1-003 E	0.38
901014	W1-004 E	0.38
901024	W1-005 E	0.38
901034	W1-006 E	0.38
904210	V4-022 C	0.16
904212	V4-022 E	0.26
907052	X1-032 E	0.35
915541	Y3-058 C	0.1
915542	Y3-058 E	1.06
917082	Z2-012 E	1.05
917432	Z2-076 E	0.14
917442	Z2-077 E	0.14
924362	AB2-084 E	0.54
924681	AB2-120 C	3.2
924682	AB2-120 E	5.21
924781	AB2-130 C O1	3.11
924782	AB2-130 E O1	5.08
925092	AB2-166 E	0.34
925261	AB2-180 C	1.6
925262	AB2-180 E	0.69
925731	AC1-049 C	0.1
925732	AC1-049 E	0.16
926911	AC1-177	0.36
927191	AC1-213 C	0.32
927192	AC1-213 E	0.21
927321	AC1-229 C	0.23
927322	AC1-229 E	0.37
930202	AB1-056 E O1	10.47

Bus #	Bus	MW Impact
930881	AB1-137 C	0.26
930882	AB1-137 E	0.11
932161	AC2-023 C	3.31
932162	AC2-023 E	2.41
935121	AD1-145	0.81
936691	AD2-088 C O1	1.75
936692	AD2-088 E O1	1.16
938651	AE1-087 C	7.68
938652	AE1-087 E	1.92
938891	AE1-117 C O2	2.99
938892	AE1-117 E O2	7.97
938901	AE1-118 C O2	2.98
938902	AE1-118 E O2	7.93
939151	AE1-145 C1	1.01
939152	AE1-145 C2	0.67
939153	AE1-145 E	0.02
939361	AE1-167 C O2	0.51
939362	AE1-167 E O2	0.42
939621	AE1-192 C O2	3.97
939622	AE1-192 E O2	1.94
BAYOU	BAYOU	0.06
BIG_CAJUN1	BIG_CAJUN1	0.09
BIG_CAJUN2	BIG_CAJUN2	0.18
BLUEG	BLUEG	0.28
CALDERWOOD	CALDERWOOD	0.03
CANNELTON	CANNELTON	0.02
CARR	CARR	0.01
CATAWBA	CATAWBA	0.02
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.06
COFFEEN	COFFEEN	0.03
COTTONWOOD	COTTONWOOD	0.23
DEARBORN	DEARBORN	0.05
DUCKCREEK	DUCKCREEK	0.06
EDWARDS	EDWARDS	0.03
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.02
G-007	G-007	0.03
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.06
NEWTON	NEWTON	0.08
O-066	O-066	0.12
PRAIRIE	PRAIRIE	0.14
RENSSELAER	RENSSELAER	0.01
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.03
TILTON	TILTON	0.03
TRIMBLE	TRIMBLE	0.03
TVA	TVA	0.1
UNIONPOWER	UNIONPOWER	0.04

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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
795527	231000	CLAY_230	DP&L	213750	LINWOOD	PECO	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	132.61	133.21	DC	10.54

Bus #	Bus	MW Impact
231505	HR4	14.07
231708	CHRIST3	3.58
231900	EM5	34.23
231901	EM4	9.56
231908	HR1	6.87
231909	HR2	7.0
231910	HR3	6.87
231916	EM3	4.81
231917	EM10	0.8
901004	W1-003 E	0.68
901014	W1-004 E	0.68
901024	W1-005 E	0.68
901034	W1-006 E	0.68
904210	V4-022 C	0.29
904212	V4-022 E	0.47
907052	X1-032 E	0.6
910572	X3-008 E	1.94
910822	X3-066 E	0.62
913362	Y1-079 E	1.02
913412	Y1-080 E	0.32
915542	Y3-058 E	1.41
917082	Z2-012 E	1.87
917432	Z2-076 E	0.3
917442	Z2-077 E	0.3
917582	Z2-097 E	0.24
919831	AA2-069	60.64
923921	AB2-032 C	2.27
923922	AB2-032 E	1.07
923951	AB2-036 C	5.75
923952	AB2-036 E	9.41
923961	AB2-037 C	12.65
923962	AB2-037 E	20.66
924191	AB2-063 C	1.26
924192	AB2-063 E	2.05
924362	AB2-084 E	0.94
924681	AB2-120 C	5.72
924682	AB2-120 E	9.33
924781	AB2-130 C O1	4.84
924782	AB2-130 E O1	7.9
924801	AB2-133 C O1	4.09
924802	AB2-133 E O1	5.19
924821	AB2-135 C	4.83
924822	AB2-135 E	5.51
924831	AB2-136 C	3.85

Bus #	Bus	MW Impact
924832	AB2-136 E	4.08
924971	AB2-153 C	1.27
924972	AB2-153 E	2.07
925092	AB2-166 E	0.53
925111	AB2-168 C	0.71
925112	AB2-168 E	0.97
925151	AB2-172 C	2.97
925152	AB2-172 E	4.84
925251	AB2-179 C	6.63
925252	AB2-179 E	2.19
925261	AB2-180 C	2.12
925262	AB2-180 E	0.91
925271	AB2-185 C	2.3
925272	AB2-185 E	0.99
925731	AC1-049 C	0.22
925732	AC1-049 E	0.36
926131	AC1-091 C	0.99
926132	AC1-091 E	1.63
926141	AC1-092 C	0.99
926142	AC1-092 E	1.63
926151	AC1-093 C	0.94
926152	AC1-093 E	1.55
926161	AC1-094 C	0.79
926162	AC1-094 E	1.31
926171	AC1-095 C	0.5
926172	AC1-095 E	0.81
926911	AC1-177	0.61
927031	AC1-190 C	5.46
927032	AC1-190 E	2.34
927191	AC1-213 C	0.48
927192	AC1-213 E	0.32
927321	AC1-229 C	0.56
927322	AC1-229 E	0.9
930202	AB1-056 E O1	27.0
930881	AB1-137 C	0.62
930882	AB1-137 E	0.27
930921	AB1-141 C	2.26
930922	AB1-141 E	1.05
930931	AB1-142 C	2.26
930932	AB1-142 E	1.05
931111	AB1-162 C	1.05
931112	AB1-162 E	1.71
931261	AB1-176 C	0.56
931262	AB1-176 E	0.93
932161	AC2-023 C	4.03
932162	AC2-023 E	2.94
933631	AC2-185 C	2.01
933632	AC2-185 E	3.28
933641	AC2-186 C	2.77
933642	AC2-186 E	4.52
935121	AD1-145	1.43
936351	AD2-045 C O1	2.02
936352	AD2-045 E O1	1.29
936451	AD2-059 C	0.06

Bus #	Bus	MW Impact
936452	AD2-059 E	0.18
936611	AD2-076 C O1	3.1
936612	AD2-076 E O1	5.06
936691	AD2-088 C O1	2.7
936692	AD2-088 E O1	1.8
938251	AE1-038 C O2	1.13
938252	AE1-038 E O2	1.56
938651	AE1-087 C	1.32
938652	AE1-087 E	0.33
938811	AE1-107 C	5.64
938812	AE1-107 E	4.02
938891	AE1-117 C O2	7.09
938892	AE1-117 E O2	18.91
938901	AE1-118 C O2	7.09
938902	AE1-118 E O2	18.91
939151	AE1-145 C1	1.81
939152	AE1-145 C2	1.2
939153	AE1-145 E	0.03
939361	AE1-167 C O2	0.9
939362	AE1-167 E O2	0.75
939621	AE1-192 C O2	7.08
939622	AE1-192 E O2	3.46
BAYOU	BAYOU	0.04
BIG_CAJUN1	BIG_CAJUN1	0.06
BIG_CAJUN2	BIG_CAJUN2	0.13
BLUEG	BLUEG	0.33
CALDERWOOD	CALDERWOOD	0.02
CANNELTON	CANNELTON	0.02
CARR	CARR	0.61
CBM-S2	CBM-S2	0.01
CHEOAH	CHEOAH	0.01
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.04
COFFEEN	COFFEEN	0.03
COTTONWOOD	COTTONWOOD	0.17
CPLE	CPLE	0.02
DEARBORN	DEARBORN	0.09
DUCKCREEK	DUCKCREEK	0.08
EDWARDS	EDWARDS	0.04
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.02
G-007	G-007	2.2
GIBSON	GIBSON	0.01
NEWTON	NEWTON	0.09
O-066	O-066	7.53
PRAIRIE	PRAIRIE	0.15
RENSSELAER	RENSSELAER	0.48
SANTEETLA	SANTEETLA	0.0
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.04
TILTON	TILTON	0.04
TRIMBLE	TRIMBLE	0.04
TVA	TVA	0.07
UNIONPOWER	UNIONPOWER	0.03

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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
482157	231001	EDGEMR 5	DP&L	231000	CLAY_230	DP&L	1	PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	breaker	804.0	128.11	128.65	DC	9.4

Bus #	Bus	MW Impact
231505	HR4	14.05
231708	CHRIST3	2.72
231900	EM5	34.17
231901	EM4	7.2
231908	HR1	5.18
231910	HR3	5.18
231919	CHRIST1	0.87
231920	CHRIST2	0.87
901004	W1-003 E	0.61
901014	W1-004 E	0.61
901024	W1-005 E	0.61
901034	W1-006 E	0.61
904210	V4-022 C	0.26
904212	V4-022 E	0.42
907052	X1-032 E	0.54
909411	X2-083	0.09
910572	X3-008 E	1.72
910822	X3-066 E	0.54
913362	Y1-079 E	0.9
913412	Y1-080 E	0.29
915542	Y3-058 E	1.26
917082	Z2-012 E	1.67
917432	Z2-076 E	0.27
917442	Z2-077 E	0.27
917582	Z2-097 E	0.21
919831	AA2-069	54.01
923921	AB2-032 C	1.98
923922	AB2-032 E	0.93
923951	AB2-036 C	5.08
923952	AB2-036 E	8.31
923961	AB2-037 C	11.33
923962	AB2-037 E	18.51
924191	AB2-063 C	1.1
924192	AB2-063 E	1.8
924362	AB2-084 E	0.84
924681	AB2-120 C	5.1
924682	AB2-120 E	8.32
924781	AB2-130 C O1	4.32
924782	AB2-130 E O1	7.04
924801	AB2-133 C O1	3.56
924802	AB2-133 E O1	4.51
924821	AB2-135 C	4.21
924822	AB2-135 E	4.81

Bus #	Bus	MW Impact
924831	AB2-136 C	3.43
924832	AB2-136 E	3.63
924971	AB2-153 C	1.11
924972	AB2-153 E	1.81
925092	AB2-166 E	0.47
925111	AB2-168 C	0.59
925112	AB2-168 E	0.8
925151	AB2-172 C	2.64
925152	AB2-172 E	4.31
925251	AB2-179 C	5.63
925252	AB2-179 E	1.86
925261	AB2-180 C	1.89
925262	AB2-180 E	0.81
925271	AB2-185 C	2.03
925272	AB2-185 E	0.87
925731	AC1-049 C	0.2
925732	AC1-049 E	0.32
926131	AC1-091 C	0.88
926132	AC1-091 E	1.45
926141	AC1-092 C	0.88
926142	AC1-092 E	1.45
926151	AC1-093 C	0.83
926152	AC1-093 E	1.37
926161	AC1-094 C	0.7
926162	AC1-094 E	1.16
926171	AC1-095 C	0.45
926172	AC1-095 E	0.72
926911	AC1-177	0.54
927031	AC1-190 C	4.86
927032	AC1-190 E	2.08
927191	AC1-213 C	0.43
927192	AC1-213 E	0.28
927321	AC1-229 C	0.5
927322	AC1-229 E	0.8
930202	AB1-056 E O1	24.07
930881	AB1-137 C	0.55
930882	AB1-137 E	0.24
930921	AB1-141 C	1.97
930922	AB1-141 E	0.92
930931	AB1-142 C	1.97
930932	AB1-142 E	0.92
931111	AB1-162 C	0.92
931112	AB1-162 E	1.5
931261	AB1-176 C	0.49
931262	AB1-176 E	0.81
932161	AC2-023 C	3.6
932162	AC2-023 E	2.62
933631	AC2-185 C	1.79
933632	AC2-185 E	2.91
933641	AC2-186 C	2.46
933642	AC2-186 E	4.01
935121	AD1-145	1.27
936351	AD2-045 C O1	1.77
936352	AD2-045 E O1	1.13

Bus #	Bus	MW Impact
936451	AD2-059 C	0.05
936452	AD2-059 E	0.15
936611	AD2-076 C O1	2.71
936612	AD2-076 E O1	4.42
936691	AD2-088 C O1	2.41
936692	AD2-088 E O1	1.6
938251	AE1-038 C O2	1.01
938252	AE1-038 E O2	1.39
938651	AE1-087 C	1.18
938652	AE1-087 E	0.29
938811	AE1-107 C	4.71
938812	AE1-107 E	3.36
938891	AE1-117 C O2	6.32
938892	AE1-117 E O2	16.86
938901	AE1-118 C O2	6.32
938902	AE1-118 E O2	16.86
939151	AE1-145 C1	1.61
939152	AE1-145 C2	1.07
939153	AE1-145 E	0.03
939361	AE1-167 C O2	0.81
939362	AE1-167 E O2	0.67
939621	AE1-192 C O2	6.31
939622	AE1-192 E O2	3.09
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.04
BIG_CAJUN2	BIG_CAJUN2	0.07
BLUEG	BLUEG	0.23
CALDERWOOD	CALDERWOOD	0.01
CANNELTON	CANNELTON	0.01
CARR	CARR	0.54
CBM-S2	CBM-S2	0.03
CHEOAH	CHEOAH	0.01
CHILHOWEE	CHILHOWEE	0.0
CHOCTAW	CHOCTAW	0.02
COFFEEN	COFFEEN	0.02
COTTONWOOD	COTTONWOOD	0.1
CPLE	CPLE	0.02
DEARBORN	DEARBORN	0.07
DUCKCREEK	DUCKCREEK	0.06
EDWARDS	EDWARDS	0.03
ELMERSMITH	ELMERSMITH	0.02
FARMERCITY	FARMERCITY	0.01
G-007	G-007	1.95
GIBSON	GIBSON	0.01
NEWTON	NEWTON	0.06
O-066	O-066	6.68
PRAIRIE	PRAIRIE	0.1
RENSSELAER	RENSSELAER	0.43
SANTEETLA	SANTEETLA	0.0
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.03
TILTON	TILTON	0.03
TRIMBLE	TRIMBLE	0.03
TVA	TVA	0.04

Bus #	Bus	MW Impact
UNIONPOWER	UNIONPOWER	0.01

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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
482049	232234	TODD	DP&L	232233	PRESTON	DP&L	1	DPL_P4-2_DP11	breaker	93.0	134.94	143.21	DC	7.67

Bus #	Bus	MW Impact
232905	BAYVIEW1	0.21
232907	VN8	3.37
232912	OH NUG1	0.53
232914	OH NUG3	0.53
232915	OH NUG4	0.53
232916	OH NUG5	0.53
232919	VN10	0.32
232921	TASLEY2G	0.36
232926	CRISFLD1	0.18
292089	T-011	0.07
293670	O-025 C	0.12
901003	W1-003 C	0.26
901004	W1-003 E	0.5
901013	W1-004 C	0.26
901014	W1-004 E	0.5
901023	W1-005 C	0.26
901024	W1-005 E	0.5
901033	W1-006 C	0.26
901034	W1-006 E	0.5
904210	V4-022 C	0.21
904212	V4-022 E	0.34
907052	X1-032 E	0.46
910571	X3-008 C	0.44
910572	X3-008 E	4.67
913411	Y1-080 C	0.05
913412	Y1-080 E	0.55
915541	Y3-058 C	0.13
915542	Y3-058 E	1.38
917081	Z2-012 C	0.13
917082	Z2-012 E	1.36
917432	Z2-076 E	0.18
917442	Z2-077 E	0.18
918831	AA1-102	0.67
920321	AA2-130	0.04
924361	AB2-084 C	0.07
924362	AB2-084 E	0.71
924681	AB2-120 C	4.15
924682	AB2-120 E	6.77
924781	AB2-130 C O1	4.04
924782	AB2-130 E O1	6.59
924831	AB2-136 C	7.56
924832	AB2-136 E	8.02

Bus #	Bus	MW Impact
925091	AB2-166 C	0.04
925092	AB2-166 E	0.45
925151	AB2-172 C	7.15
925152	AB2-172 E	11.67
925261	AB2-180 C	2.08
925262	AB2-180 E	0.89
925731	AC1-049 C	0.13
925732	AC1-049 E	0.21
926911	AC1-177	0.46
927031	AC1-190 C	12.58
927032	AC1-190 E	5.39
927191	AC1-213 C	0.41
927192	AC1-213 E	0.27
927321	AC1-229 C	0.3
927322	AC1-229 E	0.48
930202	AB1-056 E O1	13.59
930881	AB1-137 C	0.33
930882	AB1-137 E	0.14
932161	AC2-023 C	4.29
932162	AC2-023 E	3.13
935121	AD1-145	1.05
936691	AD2-088 C O1	2.27
936692	AD2-088 E O1	1.51
938651	AE1-087 C	6.02
938652	AE1-087 E	1.51
938891	AE1-117 C O2	3.88
938892	AE1-117 E O2	10.34
938901	AE1-118 C O2	3.86
938902	AE1-118 E O2	10.3
939151	AE1-145 C1	1.31
939152	AE1-145 C2	0.88
939153	AE1-145 E	0.02
939361	AE1-167 C O2	0.66
939362	AE1-167 E O2	0.55
939621	AE1-192 C O2	5.15
939622	AE1-192 E O2	2.52
BAYOU	BAYOU	0.08
BIG_CAJUN1	BIG_CAJUN1	0.12
BIG_CAJUN2	BIG_CAJUN2	0.25
BLUEG	BLUEG	0.38
CALDERWOOD	CALDERWOOD	0.04
CANNELTON	CANNELTON	0.02
CARR	CARR	0.02
CATAWBA	CATAWBA	0.03
CHEOAH	CHEOAH	0.04
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.08
COFFEEN	COFFEEN	0.04
COTTONWOOD	COTTONWOOD	0.32
DEARBORN	DEARBORN	0.07
DUCKCREEK	DUCKCREEK	0.09
EDWARDS	EDWARDS	0.04
ELMERSMITH	ELMERSMITH	0.04
FARMERCITY	FARMERCITY	0.03

Bus #	Bus	MW Impact
G-007	G-007	0.04
GIBSON	GIBSON	0.02
HAMLET	HAMLET	0.09
NEWTON	NEWTON	0.11
O-066	O-066	0.17
PRAIRIE	PRAIRIE	0.2
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.02
TATANKA	TATANKA	0.05
TILTON	TILTON	0.05
TRIMBLE	TRIMBLE	0.04
TVA	TVA	0.13
UNIONPOWER	UNIONPOWER	0.06

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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
483802	923950	AB2-036 TAP	DP&L	232100	CHURCH	DP&L	1	DPL_P7_1_DBL_1NCB-A	tower	154.0	117.04	119.12	DC	7.24

Bus #	Bus	MW Impact
232902	EASTMUNI	1.25
232907	VN8	2.84
232914	OH NUG3	0.5
232915	OH NUG4	0.5
232916	OH NUG5	0.5
232919	VN10	0.17
232926	CRISFLD1	0.16
293670	O-025 C	0.1
901003	W1-003 C	0.25
901004	W1-003 E	0.47
901013	W1-004 C	0.25
901014	W1-004 E	0.47
901023	W1-005 C	0.25
901024	W1-005 E	0.47
901033	W1-006 C	0.25
901034	W1-006 E	0.47
904210	V4-022 C	0.2
904212	V4-022 E	0.32
907052	X1-032 E	0.42
910571	X3-008 C	0.13
910572	X3-008 E	1.41
913411	Y1-080 C	0.02
913412	Y1-080 E	0.24
915541	Y3-058 C	0.09
915542	Y3-058 E	0.98
917082	Z2-012 E	1.28
917432	Z2-076 E	0.19
917442	Z2-077 E	0.19

Bus #	Bus	MW Impact
918831	AA1-102	0.61
919831	AA2-069	23.54
920321	AA2-130	0.03
923951	AB2-036 C	13.22
923952	AB2-036 E	21.63
923961	AB2-037 C	11.92
923962	AB2-037 E	19.48
924361	AB2-084 C	0.06
924362	AB2-084 E	0.65
924681	AB2-120 C	3.92
924682	AB2-120 E	6.4
924781	AB2-130 C O1	3.08
924782	AB2-130 E O1	5.02
924831	AB2-136 C	2.79
924832	AB2-136 E	2.96
925092	AB2-166 E	0.36
925151	AB2-172 C	2.16
925152	AB2-172 E	3.52
925261	AB2-180 C	1.48
925262	AB2-180 E	0.63
925731	AC1-049 C	0.14
925732	AC1-049 E	0.23
926911	AC1-177	0.43
927031	AC1-190 C	3.97
927032	AC1-190 E	1.7
927191	AC1-213 C	0.33
927192	AC1-213 E	0.22
927321	AC1-229 C	0.35
927322	AC1-229 E	0.56
930202	AB1-056 E O1	16.72
930881	AB1-137 C	0.39
930882	AB1-137 E	0.17
932161	AC2-023 C	2.83
932162	AC2-023 E	2.06
935121	AD1-145	0.85
936691	AD2-088 C O1	1.72
936692	AD2-088 E O1	1.15
938251	AE1-038 C O2	0.44
938252	AE1-038 E O2	0.61
938651	AE1-087 C	1.82
938652	AE1-087 E	0.45
938891	AE1-117 C O2	4.42
938892	AE1-117 E O2	11.79
938901	AE1-118 C O2	4.42
938902	AE1-118 E O2	11.78
939151	AE1-145 C1	1.24
939152	AE1-145 C2	0.83
939153	AE1-145 E	0.02
939361	AE1-167 C O2	0.62
939362	AE1-167 E O2	0.52
939621	AE1-192 C O2	4.86
939622	AE1-192 E O2	2.38
BAYOU	BAYOU	0.09
BIG_CAJUN1	BIG_CAJUN1	0.14

Bus #	Bus	MW Impact
BIG_CAJUN2	BIG_CAJUN2	0.28
BLUEG	BLUEG	0.44
CALDERWOOD	CALDERWOOD	0.05
CANNELTON	CANNELTON	0.03
CARR	CARR	0.02
CATAWBA	CATAWBA	0.03
CHEOAH	CHEOAH	0.04
CHILHOWEE	CHILHOWEE	0.02
CHOCTAW	CHOCTAW	0.09
COFFEEN	COFFEEN	0.05
COTTONWOOD	COTTONWOOD	0.36
DEARBORN	DEARBORN	0.08
DUCKCREEK	DUCKCREEK	0.1
EDWARDS	EDWARDS	0.05
ELMERSMITH	ELMERSMITH	0.05
FARMERCITY	FARMERCITY	0.03
G-007	G-007	0.03
GIBSON	GIBSON	0.02
HAMLET	HAMLET	0.1
NEWTON	NEWTON	0.12
O-066	O-066	0.16
PRAIRIE	PRAIRIE	0.22
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.02
TATANKA	TATANKA	0.05
TILTON	TILTON	0.05
TRIMBLE	TRIMBLE	0.05
TVA	TVA	0.15
UNIONPOWER	UNIONPOWER	0.07

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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
482217	924820	AB2-135 TAP	DP&L	232203	CHURC_69	DP&L	1	DPL_P4-2_DP11	breaker	93.0	121.7	123.56	DC	3.82

Bus #	Bus	MW Impact
232813	VAUGHN	0.11
232900	DEMECSMY	0.81
232910	NRG_G1	2.05
232911	NRG_G2	2.05
901004	W1-003 E	0.25
901014	W1-004 E	0.25
901024	W1-005 E	0.25
901034	W1-006 E	0.25
901411	W1-062	0.83
904210	V4-022 C	0.1
904212	V4-022 E	0.17
907052	X1-032 E	0.22

Bus #	Bus	MW Impact
915542	Y3-058 E	0.48
917082	Z2-012 E	0.68
917432	Z2-076 E	0.12
917442	Z2-077 E	0.12
924362	AB2-084 E	0.34
924681	AB2-120 C	2.07
924682	AB2-120 E	3.39
924781	AB2-130 C O1	2.0
924782	AB2-130 E O1	3.27
924821	AB2-135 C	21.03
924822	AB2-135 E	23.99
925092	AB2-166 E	0.19
925261	AB2-180 C	0.73
925262	AB2-180 E	0.31
925731	AC1-049 C	0.09
925732	AC1-049 E	0.14
926131	AC1-091 C	0.52
926132	AC1-091 E	0.86
926141	AC1-092 C	0.52
926142	AC1-092 E	0.86
926151	AC1-093 C	0.49
926152	AC1-093 E	0.81
926161	AC1-094 C	0.42
926162	AC1-094 E	0.69
926171	AC1-095 C	0.26
926172	AC1-095 E	0.42
926911	AC1-177	0.22
927191	AC1-213 C	0.17
927192	AC1-213 E	0.11
927321	AC1-229 C	0.22
927322	AC1-229 E	0.35
930202	AB1-056 E O1	10.42
930881	AB1-137 C	0.24
930882	AB1-137 E	0.1
932161	AC2-023 C	1.33
932162	AC2-023 E	0.97
933631	AC2-185 C	1.06
933632	AC2-185 E	1.73
933641	AC2-186 C	2.79
933642	AC2-186 E	4.56
935121	AD1-145	0.67
936691	AD2-088 C O1	1.11
936692	AD2-088 E O1	0.74
938891	AE1-117 C O2	2.79
938892	AE1-117 E O2	7.44
938901	AE1-118 C O2	2.79
938902	AE1-118 E O2	7.45
939151	AE1-145 C1	0.66
939152	AE1-145 C2	0.44
939153	AE1-145 E	0.01
939361	AE1-167 C O2	0.33
939362	AE1-167 E O2	0.27
939621	AE1-192 C O2	2.56
939622	AE1-192 E O2	1.26

Bus #	Bus	MW Impact
BAYOU	BAYOU	0.07
BIG_CAJUN1	BIG_CAJUN1	0.11
BIG_CAJUN2	BIG_CAJUN2	0.22
BLUEG	BLUEG	0.35
CALDERWOOD	CALDERWOOD	0.04
CANNELTON	CANNELTON	0.02
CARR	CARR	0.01
CATAWBA	CATAWBA	0.02
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.07
COFFEEN	COFFEEN	0.04
COTTONWOOD	COTTONWOOD	0.29
DEARBORN	DEARBORN	0.06
DUCKCREEK	DUCKCREEK	0.08
EDWARDS	EDWARDS	0.04
ELMERSMITH	ELMERSMITH	0.04
FARMERCITY	FARMERCITY	0.02
G-007	G-007	0.02
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.08
NEWTON	NEWTON	0.1
O-066	O-066	0.1
PRAIRIE	PRAIRIE	0.18
RENSSELAER	RENSSELAER	0.01
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.01
TATANKA	TATANKA	0.04
TILTON	TILTON	0.04
TRIMBLE	TRIMBLE	0.04
TVA	TVA	0.12
UNIONPOWER	UNIONPOWER	0.05

Contingency Name	Contingency Definition
PECO_P1-2_220-84	CONTINGENCY 'PECO_P1-2_220-84' /* $ DELCO $ 220-84 $ LB TRIP BRANCH FROM BUS 213750 TO BUS 231000 CKT 1 /* LINWOOD 230.00 CLAY_230 230.00 $ DELCO $ 220-84 $ L END
DPL_P4-2_DP11	CONTINGENCY 'DPL_P4-2_DP11' /*STEELE BUS BREAKER TO MILFORD DISCONNECT BRANCH FROM BUS 232004 TO BUS 232000 CKT 1 /*MILFORD STEELE 230 230 DISCONNECT BRANCH FROM BUS 232000 TO BUS 232005 CKT 1 /*STEELE VIENNA 230 230 END

Contingency Name	Contingency Definition
PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK	CONTINGENCY 'PECO_P4_LINWO225/* $ DELCO $ PECO_P4_LINWO225 $ STBK' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 $ DELCO $ PECO_P4_LINWO225 $ STBK DISCONNECT BUS 213892 /* PHLISL87 230.00 $ DELCO $ PECO_P4_LINWO225 $ STBK DISCONNECT BUS 213888 /* PHLISCT1 18.00 $ DELCO $ PECO_P4_LINWO225 $ STBK DISCONNECT BUS 213889 /* PHLISCT2 18.00 $ DELCO $ PECO_P4_LINWO225 $ STBK END
CKT 23032B	CONTINGENCY 'CKT 23032B' OPEN LINE FROM BUS 232013 TO BUS 232003 CIRCUIT 1 /SILVER RUN - CARTANZA 230 END
PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK	CONTINGENCY 'PECO_P4_PEACH215/* $ CHESCO $ PECO_P4_PEACH215 $ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 $ CHESCO $ PECO_P4_PEACH215 $ STBK REMOVE MACHINE 1 FROM BUS 200034 /* PCHBTM 2 22.00 $ CHESCO $ PECO_P4_PEACH215 $ STBK END
DPL_P1_2_CKT 23002	CONTINGENCY 'DPL_P1_2_CKT 23002' DISCONNECT BUS 232007 /INDIAN RIVER - PINEY GROVE 230 & PNY GRV AT-20 XFMER END
PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC	CONTINGENCY 'PECO_P1-2_220-85/* $ DELCO $ 220-85 $ LC' TRIP BRANCH FROM BUS 213750 TO BUS 231001 CKT 1 /* LINWOOD 230.00 EDGEMR5 230.00 $ DELCO $ 220-85 $ L END
DPL_P7_1_DBL_1NCB-A	CONTINGENCY 'DPL_P7_1_DBL_1NCB-A' /* #1 & #2 KEENEY-STEELE 230 OPEN LINE FROM BUS 231003 TO BUS 232000 CKT 1 OPEN LINE FROM BUS 231003 TO BUS 923960 CKT 2 END
PECO_P4_PEACH205/* $ CHESCO $ PECO_P4_PEACH205 $ STBK	CONTINGENCY 'PECO_P4_PEACH205/* $ CHESCO $ PECO_P4_PEACH205 $ STBK' TRIP BRANCH FROM BUS 200065 TO BUS 200066 CKT 1 /* PCHBTM2S 500.00 PCHBTM1N 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK TRIP BRANCH FROM BUS 200064 TO BUS 200065 CKT Z1 /* PCHBTM1S 500.00 PCHBTM2S 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK TRIP BRANCH FROM BUS 200013 TO BUS 200066 CKT Z1 /* PCHBTM2N 500.00 PCHBTM1N 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 $ CHESCO $ PECO_P4_PEACH205 $ STBK END
PECO_P1-2_5014/* $ CHESCO $ PECO_P1-2_5014 $ L	CONTINGENCY 'PECO_P1-2_5014/* $ CHESCO $ PECO_P1-2_5014 $ L' TRIP BRANCH FROM BUS 200065 TO BUS 200051 CKT 1 /* PCHBTM2S 500.00 ROCKSPGS 500.00 $ CHESCO $ PECO_P1-2_5014 $ L END

Contingency Name	Contingency Definition
DPL_P1_2_CKT 13789	CONTINGENCY 'DPL_P1_2_CKT 13789' OPEN LINE FROM BUS 232132 TO BUS 232133 CIRCUIT 1 /OAK HALL - WATTSVILLE 138 END