



Generation Interconnection

Feasibility Study Report

For

Queue Project AF2-415

BERGEN 138 KV

150 MW Capacity / 150 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 PSEG.

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.

An Interconnection Customer with a proposed new Customer Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units (PMUs). See Section 8.5.3 of Appendix 2 to the Interconnection Service Agreement as well as section 4.3 of PJM Manual 14D for additional information.

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

3 General

The Interconnection Customer (IC) has proposed a Storage generating facility located in Hudson County, New Jersey. The installed facilities will have a total capability of 150 MW with 150 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 01, 2022. This study does not imply a TO commitment to this in-service date.

Queue Number	AF2-415
Project Name	BERGEN 138 KV
State	New Jersey
County	Hudson
Transmission Owner	PSEG
MFO	150
MWE	150
MWC	150
Fuel	Storage
Basecase Study Year	2023

New Service Customers proposing projects that 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

AF2-415 will interconnect with the PSEG transmission system via one of the following options:

Option 1: at the Bergen 138 kV substation. The POI will be located at the termination of the 138kV underground circuit located inside the Bergen 138kV substation.

Option 2: at the Bergen 230 kV substation

5 Cost Summary

The AF2-415 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$7,260,000
Total System Network Upgrade Costs	\$205,494,443
Total Costs	\$212,754,443

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

6.1 Attachment Facilities

Install a pothead termination support structure at the POI, disconnect switches, A-frame and associated strain bus. Installation of relays associated with generator lead line. Installation of revenue grade metering.

6.2 Direct Connection Network Upgrades

None

6.3 Non-Direct Connection Network Upgrades

Install a 138kV breaker along with associated disconnect switches, bus and A-frame to reconfigure the existing substation ring bus.

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

Description	Total Cost
Attachment Facilities	\$3,350,000
Direct Connection Network Upgrades	\$0
Non-Direct Connection Network Upgrades	\$3,910,000 ¹
Total Physical Interconnection Costs	\$7,260,000

7 Schedule

The estimated schedule for completion of the Transmission Owner scope of work above is **48 months**.

8 Revenue Metering and SCADA Requirements

8.1 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.

¹ The Non-Direct Connection Network Upgrade required for the interconnection of the AF2-415 project (estimated at \$3,910,000), also mitigates the overloaded BERGEN_4 138.0 kV - 217157 BERGEN_R 138.0 kV Ckt Id 1 Facility. Queue requests AF2-414 and AF2-415 are the only contributors to the identified overload. If AF2-415 withdraws, AF2-414 will become responsible for the cost of the upgrade.

8.2 Meteorological Data Reporting Requirements

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

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

8.3 Interconnected Transmission Owner Requirements

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

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

9 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AF2-415 was evaluated as a 150.0 MW (Capacity 150.0 MW) injection at the **Bergen 138 kV substation** in the PSEG area. Project AF2-415 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-415 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

9.1 Generation Deliverability

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

None

9.2 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	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100380225	218469	METUCHEN	230.0	PSE&G	218355	NEWDOVR_H	230.0	PSE&G	1	PS_P7-1_R2218+T2325	tower	885.0	99.0	100.79	DC	15.92

9.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379192	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	111.87	115.6	DC	35.43
100379568	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	single	1081.0	112.33	113.35	DC	11.07
100379542	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	121.62	123.07	DC	15.65
100379544	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331	single	887.0	120.13	121.58	DC	15.65
100379157	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P2-3_LIND2_5-6	breaker	887.0	121.26	124.49	DC	28.66
100380135	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	128.72	132.15	DC	30.41
100380136	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	887.0	121.47	125.09	DC	32.11
100379183	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	120.34	121.53	DC	23.13
100379518	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	126.08	128.49	DC	25.93
100379519	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	122.89	125.3	DC	25.93
100379520	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	single	731.0	122.88	125.2	DC	20.57
100380143	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	130.11	131.4	DC	25.05
100380148	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	125.94	129.37	DC	30.41
100380149	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	887.0	119.54	123.16	DC	32.11
100380238	218355	NEWDOVR_H	230.0	PSE&G	218320	FANWOOD_1	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	100.74	102.92	DC	19.32
100379162	218357	PRSENAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	123.45	124.64	DC	23.13

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379496	218357	PRSSNAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	129.13	131.53	DC	25.93
100379497	218357	PRSSNAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	128.7	131.11	DC	25.93
100379498	218357	PRSSNAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	single	731.0	126.74	129.06	DC	20.57
100380130	218357	PRSSNAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	132.49	133.79	DC	25.05
100379455	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	135.69	138.1	DC	25.93
100379456	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	131.65	134.06	DC	25.93
100379457	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	Base Case	single	731.0	130.72	133.04	DC	20.57
100380109	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	135.42	136.71	DC	25.05
100380224	218469	METUCHEN	230.0	PSE&G	218355	NEWDOVR_H	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	103.87	106.05	DC	19.32

9.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379592	216950	ROSELAND	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_S-2297	operation	887.0	105.8	111.09	DC	46.98
100379563	217134	BAYWAY	345.0	PSE&G	216908	BAYONNE	345.0	PSE&G	1	Base Case	operation	670.0	111.66	118.33	DC	41.3
100379609	217870	WILPIPE	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_Y-2277	operation	887.0	103.27	108.51	DC	46.51
100379616	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P1-2_U-2273	operation	950.0	102.94	105.86	DC	27.74
100379543	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	operation	887.0	121.41	122.21	DC	15.65
100379537	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	121.19	124.22	DC	26.92
100379523	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	operation	885.0	119.36	120.7	DC	25.93
100379526	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	operation	731.0	116.22	117.5	DC	20.57
100379551	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	118.41	121.45	DC	26.92
100379501	218357	PRSSNAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	122.11	123.45	DC	25.93
100379504	218357	PRSSNAV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	operation	731.0	122.36	123.64	DC	20.57
100379458	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	128.65	129.99	DC	25.93
100379463	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	Base Case	operation	731.0	126.34	127.63	DC	20.57

9.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Index	Facility	Upgrade Description	Cost
100379162, 100380130, 100379498, 100379496, 100379497	9	PRSNV_R 230.0 kV - MDWRD_R 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I016b_PieMdwZ (1939) : Reconductor and upgrade terminal equipment to 1770MVA SER Project Type : FAC Cost : \$9,287,360 Time Estimate : 39.0 Months	\$9,287,360
100379157, 100380135, 100380136	5	SEWAREN 230.0 kV - MINUEST_R 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I010b_SewMin (1931) : Wreck and Rebuild to 1625MVA SER Project Type : FAC Cost : \$35,100,000 Time Estimate : 45.0 Months	\$35,100,000
100379568	3	LINDEN 230.0 kV - TOSCO_3 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I012b_LinTOS (1934) : Wreck and Rebuild to 1400MVA SER Project Type : FAC Cost : \$3,900,000 Time Estimate : 33.0 Months	\$3,900,000
100379456, 100379457, 100379455, 100380109	10	METUCHEN 230.0 kV - PRSNV_R 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I017b_MetPierZ (1940) : Reconductor and upgrade terminal equipment to 1770MVA SER Project Type : FAC Cost : \$15,026,083 Time Estimate : 39.0 Months	\$15,026,083
100380225, 100380224	1	METUCHEN 230.0 kV - NEWDOVR_H 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I018a_MetNDvr (1941) : Reconductor to 1080MVA SER Project Type : FAC Cost : \$12,883,000 Time Estimate : 33.0 Months	\$12,883,000
100380143, 100379520, 100379518, 100379519, 100379183	6	MDWRD_R 230.0 kV - BRUNSWCK 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I015b_MdwBrnsZ (1938) : Reconductor to 1770MVA SER Project Type : FAC Cost : \$1,144,000 Time Estimate : 39.0 Months	\$1,144,000

ID	Index	Facility	Upgrade Description	Cost
100379544, 100379542	4	DEANS 230.0 kV - BRUNSWCK 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I014a_DnsBrns (1936) : Reconductor to 1080MVA SER Project Type : FAC Cost : \$11,375,000 Time Estimate : 33.0 Months r_PS_I014b_DnsBrns (1937) : Wreck and Rebuild to 1625MVA SER Project Type : FAC Cost : \$64,350,000 Time Estimate : 45.0 Months	\$75,725,000
100379192	2	LINDEN 230.0 kV - LINDEN_345 345.0 kV Ckt 1	<u>PSEG</u> r_PS_I009a_Li230345 (1929) : Reconductor Strain Bus Project Type : FAC Cost : \$780,000 Time Estimate : 18.0 Months	\$780,000
100380148 ,100380149	7	MINUEST_R 230.0 kV - LINDEN 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I011b_MinLin (1933) : Wreck and Rebuild to 1625MVA SER Project Type : FAC Cost : \$39,000,000 Time Estimate : 45.0 Months	\$39,000,000
100380238	8	NEWDOVR_H 230.0 kV - FANWOOD_1 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I019a_NDvrFan (1942) : Reconductor to 1080MVA SER Project Type : FAC Cost : \$12,649,000 Time Estimate : 33.0 Months	\$12,649,000
			TOTAL COST	\$205,494,443

9.6 Flow Gate Details - Primary POI

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

9.6.1 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
100380224	218469	METUCHEN	PSE&G	218355	NEWDOVR_H	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	103.87	106.05	DC	19.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206638	28PEAPACK	-0.2814	Adder	-0.33
206679	28M&M S721	-0.7152	Adder	-0.84
207411	AA2-060 BAT	0.5602	Merchant Transmission	0.5602
207414	AA2-061 BAT	0.7469	Merchant Transmission	0.7469
217104	FAIRLAWN_AB	-7.5026	Adder	-8.83
217196	RE CRAN E	0.3354	50/50	0.3354
217197	RE CRAN C	0.0355	50/50	0.0355
217198	V3-058 E	0.2490	50/50	0.2490
217199	V3-059 E	0.2490	50/50	0.2490
217212	AMBOY SO E	0.4134	50/50	0.4134
217213	AMBOY SO C	0.0451	50/50	0.0451
218359	V2-009 E3	0.3275	Adder	0.39
218379	BRUNSWCK_AB	0.1933	50/50	0.1933
218428	ETC SOLAR C	0.0099	50/50	0.0099
218429	ETC SOLAR E	0.1356	50/50	0.1356
218437	BLK ROCK E	0.1520	50/50	0.1520
218438	BLK ROCK C	0.0168	50/50	0.0168
218439	SUMMTASSOC E	0.2901	50/50	0.2901
218440	SUMMTASSOC C	0.0307	50/50	0.0307
218545	WOODBRS1_C	0.0080	50/50	0.0080
218549	WOODBRS1_E	0.0755	50/50	0.0755
218554	WOODBRS2_C	0.0067	50/50	0.0067
218555	WOODBRS2_E	0.0630	50/50	0.0630
218558	WOODBRS3_C	0.0067	50/50	0.0067
218559	WOODBRS3_E	0.0630	50/50	0.0630
218573	BENNETSP1_E	0.0164	Adder	0.02
218578	BENNETSP2_E	0.0159	Adder	0.02
218584	BRUNSWSP1_C	0.0037	50/50	0.0037
218585	BRUNSWSP1_E	0.0350	50/50	0.0350
218591	BRUNSWSP2_C	0.0037	50/50	0.0037
218608	BRUNSWSP2_E	0.0350	50/50	0.0350
218612	MIDDL2SP1_C	0.0015	50/50	0.0015
218625	MIDDL2SP1_E	0.0141	50/50	0.0141
218626	MIDDL2SP2_C	0.0015	50/50	0.0015
218627	MIDDL2SP2_E	0.0141	50/50	0.0141
218636	METUCHSP1_C	0.0113	50/50	0.0113
218640	METUCHSP1_E	0.1065	50/50	0.1065
218655	METUCHSP2_C	0.0113	50/50	0.0113
218659	METUCHSP2_E	0.1065	50/50	0.1065
218672	KENILWRTH E	-0.7094	Adder	-0.83
218728	CNTRALGAS1 C	0.0475	50/50	0.0475
218729	CNTRALGAS1 E	0.3327	50/50	0.3327

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218730	CNTRALGAS2 C	0.0448	50/50	0.0448
218731	CNTRALGAS2 E	0.3138	50/50	0.3138
219001	SEWAREN7GT	10.1882	50/50	10.1882
219002	SEWAREN7ST	15.2823	50/50	15.2823
219612	MATRIX C	0.0201	50/50	0.0201
219613	MATRIX E	0.1912	50/50	0.1912
219878	V2-009 E4	0.1970	Adder	0.23
219881	V2-009 E2	0.3332	50/50	0.3332
219882	V2-009 C2	0.0353	50/50	0.0353
219883	V2-009 E1	0.1663	50/50	0.1663
219884	V2-009 C1	0.0177	50/50	0.0177
917001	Z2-000 C O1	195.2543	50/50	195.2543
917002	Z2-000 E O1	1.1640	50/50	1.1640
917521	SEWARENG7E1	3.7713	50/50	3.7713
917522	SEWARENG7E2	3.7713	50/50	3.7713
920031	AA2-099 C	1.6013	50/50	1.6013
924131	AB2-057 C	0.0816	50/50	0.0816
924132	AB2-057 E	0.7718	50/50	0.7718
924431	AB2-092	-5.4854	Adder	-6.45
930092	AB1-021 E	-0.2022	Adder	-0.24
930901	AB1-139 C	0.1255	50/50	0.1255
930902	AB1-139 E	1.1931	50/50	1.1931
933332	AC2-145 E (Suspended)	-0.0184	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0216	50/50	0.0216
937513	AD2-210 BAT (Suspended)	0.2391	50/50	0.2391
938281	AE1-041 C	0.0100	50/50	0.0100
938282	AE1-041 E	0.2619	50/50	0.2619
938413	AE1-060 BAT	1.6909	Merchant Transmission	1.6909
938601	AE1-081 C	-0.0766	Adder	-0.09
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	348.1200	50/50	348.1200
942253	AE2-237 BAT	10.1532	Merchant Transmission	10.1532
943483	AF1-019 BAT	1.8610	Merchant Transmission	1.8610
945803	AF1-245 BAT	26.4520	50/50	26.4520
946603	AF1-324 BAT	2.2166	50/50	2.2166
946613	AF1-325 BAT	1.8844	Merchant Transmission	1.8844
946633	AF1-327 BAT	1.5924	Merchant Transmission	1.5924
946643	AF1-328 BAT	1.5858	Merchant Transmission	1.5858
961232	AF2-414 BAT	36.5160	50/50	36.5160
961242	AF2-415 BAT	19.3200	50/50	19.3200
961252	AF2-416 BAT	1.3192	50/50	1.3192
961512	AF1-442 NFTW	4.2232	Merchant Transmission	4.2232
961522	AF1-443 NFTW	4.2245	Merchant Transmission	4.2245
WEC	WEC	0.0687	Confirmed LTF	0.0687
LGEE	LGEE	0.1267	Confirmed LTF	0.1267
CPL	CPL	0.1925	Confirmed LTF	0.1925
CBM-W2	CBM-W2	1.9001	Confirmed LTF	1.9001
NY	NY	3.3064	Confirmed LTF	3.3064
CBM-W1	CBM-W1	2.6646	Confirmed LTF	2.6646
TVA	TVA	0.3374	Confirmed LTF	0.3374
O-066	O-066	88.6502	Confirmed LTF	88.6502
CBM-S2	CBM-S2	1.5895	Confirmed LTF	1.5895

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	2.0278	Confirmed LTF	2.0278
G-007	G-007	1.6182	Confirmed LTF	1.6182
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.3543	Confirmed LTF	0.3543

9.6.2 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
100379192	218300	LINDEN	PSE&G	217958	LINDEN_345	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	111.87	115.6	DC	35.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217104	FAIRLAWN_AB	-10.5021	Adder	-12.36
217212	AMBOY SO E	0.1757	50/50	0.1757
217213	AMBOY SO C	0.0192	50/50	0.0192
218418	LINDEN_G5	2.9374	50/50	2.9374
218419	LINDEN_G6	2.9374	50/50	2.9374
218423	LINDEN_G21	7.7697	50/50	7.7697
218424	LINDEN_G22	7.7697	50/50	7.7697
218425	LINDEN_G12	8.4760	50/50	8.4760
218426	LINDEN_2ST	13.4204	50/50	13.4204
218428	ETC SOLAR C	0.0036	50/50	0.0036
218429	ETC SOLAR E	0.0493	50/50	0.0493
218439	SUMMTASSOC E	0.0958	Adder	0.11
218545	WOODBRS1_C	0.0034	50/50	0.0034
218549	WOODBRS1_E	0.0321	50/50	0.0321
218554	WOODBRS2_C	0.0028	50/50	0.0028
218555	WOODBRS2_E	0.0269	50/50	0.0269
218558	WOODBRS3_C	0.0028	50/50	0.0028
218559	WOODBRS3_E	0.0268	50/50	0.0268
218636	METUCHSP1_C	0.0041	50/50	0.0041
218640	METUCHSP1_E	0.0386	50/50	0.0386
218655	METUCHSP2_C	0.0041	50/50	0.0041
218659	METUCHSP2_E	0.0386	50/50	0.0386
218662	MINUESP1_C	0.0017	50/50	0.0017
218663	MINUESP1_E	0.0159	50/50	0.0159
218664	MINUESP2_C	0.0020	50/50	0.0020
218665	MINUESP2_E	0.0195	50/50	0.0195
218729	CNTRALGAS1 E	0.1098	Adder	0.13
219001	SEWAREN7GT	4.9315	50/50	4.9315
219002	SEWAREN7ST	7.3973	50/50	7.3973
917001	Z2-000 C O1	70.6764	50/50	70.6764
917002	Z2-000 E O1	0.4213	50/50	0.4213
917011	Z2-002 C	2.5428	50/50	2.5428
917521	SEWARENG7E1	1.8255	50/50	1.8255
917522	SEWARENG7E2	1.8255	50/50	1.8255
920031	AA2-099 C	0.7751	50/50	0.7751
924431	AB2-092	-10.0513	Adder	-11.83
930901	AB1-139 C	0.0454	50/50	0.0454
930902	AB1-139 E	0.4319	50/50	0.4319
938281	AE1-041 C	0.0036	50/50	0.0036
938282	AE1-041 E	0.0948	50/50	0.0948
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	168.5040	50/50	168.5040

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945803	AF1-245 BAT	35.2260	50/50	35.2260
961232	AF2-414 BAT	107.3130	50/50	107.3130
961242	AF2-415 BAT	35.4300	50/50	35.4300
961252	AF2-416 BAT	1.8473	50/50	1.8473
WEC	WEC	0.0756	Confirmed LTF	0.0756
LGEE	LGEE	0.1381	Confirmed LTF	0.1381
CPL	CPL	0.1819	Confirmed LTF	0.1819
CBM-W2	CBM-W2	2.0229	Confirmed LTF	2.0229
NY	NY	3.6310	Confirmed LTF	3.6310
CBM-W1	CBM-W1	2.9649	Confirmed LTF	2.9649
TVA	TVA	0.3514	Confirmed LTF	0.3514
O-066	O-066	124.1386	Confirmed LTF	124.1386
CBM-S2	CBM-S2	1.5490	Confirmed LTF	1.5490
CBM-S1	CBM-S1	2.1300	Confirmed LTF	2.1300
G-007	G-007	0.6781	Confirmed LTF	0.6781
MADISON	MADISON	0.0060	Confirmed LTF	0.0060
MEC	MEC	0.3845	Confirmed LTF	0.3845

9.6.3 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
100379568	218300	LINDEN	PSE&G	219046	TOSCO_3	PSE&G	1	PS_P1-2_Z-2331_LT	single	1081.0	112.33	113.35	DC	11.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217065	ECRRF_1	0.4504	80/20	0.4504
217081	WEATEXAS C	0.0182	80/20	0.0182
217118	BERGEN 1 ST	2.4818	80/20	2.4818
217209	CENTRL HS C	0.0051	80/20	0.0051
217211	CAMDEN ST C	0.0028	80/20	0.0028
217213	AMBOY SO C	0.0305	80/20	0.0305
217217	BAYON2SP2_C	0.0009	80/20	0.0009
217250	BAYON2SP4_C	0.0007	80/20	0.0007
217323	ECRRF_2	0.4492	80/20	0.4492
217571	MARIONSP1_C	0.0031	80/20	0.0031
217575	MARIONSP2_C	0.0031	80/20	0.0031
217580	MARIONSP3_C	0.0031	80/20	0.0031
217675	NORTHASP1_C	0.0039	80/20	0.0039
217688	NORTHASP2_C	0.0039	80/20	0.0039
217915	BERGEN_11	1.4093	80/20	1.4093
217916	BERGEN_12	1.4093	80/20	1.4093
217917	BERGEN_13	1.4093	80/20	1.4093
217918	BERGEN_14	1.4093	80/20	1.4093
218318	LINDEN_26	1.7313	80/20	1.7313
218418	LINDEN_G5	4.0041	80/20	4.0041
218419	LINDEN_G6	4.0041	80/20	4.0041
218423	LINDEN_G21	10.5914	80/20	10.5914
218424	LINDEN_G22	10.5914	80/20	10.5914
218425	LINDEN_G12	11.5542	80/20	11.5542
218426	LINDEN_2ST	18.2942	80/20	18.2942
218428	ETC SOLAR C	0.0059	80/20	0.0059
218435	LINDEN_1GT	8.3323	80/20	8.3323
218436	LINDEN_G11	14.3037	80/20	14.3037
218440	SUMMTASSOC C	0.0177	80/20	0.0177
218545	WOODBRS1_C	0.0054	80/20	0.0054
218554	WOODBRS2_C	0.0045	80/20	0.0045
218558	WOODBRS3_C	0.0045	80/20	0.0045
218636	METUCHSP1_C	0.0068	80/20	0.0068
218655	METUCHSP2_C	0.0068	80/20	0.0068
218662	MINUESP1_C	0.0024	80/20	0.0024
218664	MINUESP2_C	0.0028	80/20	0.0028
218666	NWKS WTSP1_C	0.0055	80/20	0.0055
218726	LINSOLAR C	0.0405	80/20	0.0405
218728	CNTRALGAS1 C	0.0274	80/20	0.0274
218730	CNTRALGAS2 C	0.0273	80/20	0.0273
219001	SEWAREN7GT	7.5957	80/20	7.5957

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219002	SEWAREN7ST	11.3935	80/20	11.3935
219035	LINDEN_G8	2.8238	80/20	2.8238
219036	LINDEN_G7	2.8238	80/20	2.8238
917001	Z2-000 C O1	117.4384	80/20	117.4384
917011	Z2-002 C	3.4663	80/20	3.4663
920031	AA2-099 C	1.1938	80/20	1.1938
924431	AB2-092	3.6909	80/20	3.6909
930901	AB1-139 C	0.0755	80/20	0.0755
938281	AE1-041 C	0.0060	80/20	0.0060
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	259.5360	80/20	259.5360
961231	AF2-414 O1	52.2570	80/20	52.2570
961241	AF2-415 O1	11.0715	80/20	11.0715
NEWTON	NEWTON	0.3933	Confirmed LTF	0.3933
FARMERCITY	FARMERCITY	0.0204	Confirmed LTF	0.0204
CALDERWOOD	CALDERWOOD	0.1774	Confirmed LTF	0.1774
PRAIRIE	PRAIRIE	0.9428	Confirmed LTF	0.9428
CHEOAH	CHEOAH	0.1787	Confirmed LTF	0.1787
EDWARDS	EDWARDS	0.1285	Confirmed LTF	0.1285
TILTON	TILTON	0.2312	Confirmed LTF	0.2312
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
GIBSON	GIBSON	0.1998	Confirmed LTF	0.1998
BLUEG	BLUEG	0.6354	Confirmed LTF	0.6354
TRIMBLE	TRIMBLE	0.2037	Confirmed LTF	0.2037
CATAWBA	CATAWBA	0.1222	Confirmed LTF	0.1222

9.6.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379542	218306	DEANS	PSE&G	218304	BRUNSWCK	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	121.62	123.07	DC	15.65

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217065	ECRRF_1	0.5623	80/20	0.5623
217081	WEATEXAS C	0.0115	80/20	0.0115
217104	FAIRLAWN_AB	6.5003	80/20	6.5003
217118	BERGEN 1 ST	3.5130	80/20	3.5130
217139	BERGEN_2CT2	2.9299	80/20	2.9299
217140	BERGEN_2ST	4.3314	80/20	4.3314
217202	FBANKSOLAR C	0.0068	80/20	0.0068
217209	CENTRL HS C	0.0055	80/20	0.0055
217211	CAMDEN ST C	0.0031	80/20	0.0031
217213	AMBOY SO C	0.0269	80/20	0.0269
217217	BAYON2SP2_C	0.0006	80/20	0.0006
217250	BAYON2SP4_C	0.0005	80/20	0.0005
217275	DOREMUSP1_C	0.0005	80/20	0.0005
217279	DOREMUSP2_C	0.0005	80/20	0.0005
217281	DOREMUSP3_C	0.0005	80/20	0.0005
217283	DOREMUSP4_C	0.0005	80/20	0.0005
217323	ECRRF_2	0.5621	80/20	0.5621
217571	MARIONSP1_C	0.0020	80/20	0.0020
217575	MARIONSP2_C	0.0020	80/20	0.0020
217580	MARIONSP3_C	0.0020	80/20	0.0020
217584	WORNGESP1_C	0.0010	80/20	0.0010
217586	WORNGESP2_C	0.0010	80/20	0.0010
217606	WORNGESP3_C	0.0010	80/20	0.0010
217617	ERUTHSP1_C	0.0016	80/20	0.0016
217619	ERUTHSP2_C	0.0016	80/20	0.0016
217637	FAIRLASP1_C	0.0029	80/20	0.0029
217641	FAIRLASP2_C	0.0029	80/20	0.0029
217675	NORTHASP1_C	0.0024	80/20	0.0024
217688	NORTHASP2_C	0.0024	80/20	0.0024
217690	SPRINGSP1_C	0.0016	80/20	0.0016
217700	SPRINGSP2_C	0.0017	80/20	0.0017
217915	BERGEN_11	1.9948	80/20	1.9948
217916	BERGEN_12	1.9948	80/20	1.9948
217917	BERGEN_13	1.9948	80/20	1.9948
217918	BERGEN_14	1.9948	80/20	1.9948
218092	PRIMEENG_G	1.1765	80/20	1.1765
218318	LINDEN_26	0.8855	80/20	0.8855
218344	TOSCO_G6	0.5175	80/20	0.5175
218376	ALDENE_AB	0.1486	80/20	0.1486
218418	LINDEN_G5	1.6597	80/20	1.6597
218419	LINDEN_G6	1.6597	80/20	1.6597

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218423	LINDEN_G21	4.3902	80/20	4.3902
218424	LINDEN_G22	4.3902	80/20	4.3902
218425	LINDEN_G12	4.7893	80/20	4.7893
218426	LINDEN_2ST	7.5830	80/20	7.5830
218428	ETC SOLAR C	0.0062	80/20	0.0062
218435	LINDEN_1GT	4.2618	80/20	4.2618
218436	LINDEN_G11	7.3160	80/20	7.3160
218440	SUMMTASSOC C	0.0284	80/20	0.0284
218449	ALDENESP1_C	0.0022	80/20	0.0022
218508	ALDENESP2_C	0.0023	80/20	0.0023
218545	WOODBRS1_C	0.0048	80/20	0.0048
218554	WOODBRS2_C	0.0040	80/20	0.0040
218558	WOODBRS3_C	0.0040	80/20	0.0040
218636	METUCHSP1_C	0.0068	80/20	0.0068
218655	METUCHSP2_C	0.0068	80/20	0.0068
218662	MINUESP1_C	0.0014	80/20	0.0014
218664	MINUESP2_C	0.0014	80/20	0.0014
218666	NWKSWTSP1_C	0.0034	80/20	0.0034
218674	WARINASP1_C	0.0043	80/20	0.0043
218676	WARINASP2_C	0.0043	80/20	0.0043
218726	LINSOLAR C	0.0207	80/20	0.0207
218728	CNTRALGAS1 C	0.0440	80/20	0.0440
218730	CNTRALGAS2 C	0.0439	80/20	0.0439
219001	SEWAREN7GT	6.0167	80/20	6.0167
219002	SEWAREN7ST	9.0251	80/20	9.0251
219035	LINDEN_G8	1.4443	80/20	1.4443
219036	LINDEN_G7	1.4443	80/20	1.4443
913101	Y1-026	4.1363	80/20	4.1363
917001	Z2-000 C O1	117.9886	80/20	117.9886
917011	Z2-002 C	1.4368	80/20	1.4368
920031	AA2-099 C	0.9457	80/20	0.9457
924431	AB2-092	5.2244	80/20	5.2244
930901	AB1-139 C	0.0758	80/20	0.0758
938231	AE1-037 FTIR (Withdrawn : 01/24/2020)	113.8080	Merchant Transmission	113.8080
938281	AE1-041 C	0.0061	80/20	0.0061
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	205.5840	80/20	205.5840
943841	AF1-052 C	9.2614	Adder	10.9
945801	AF1-245 C O1	6.5124	Adder	7.66
961231	AF2-414 O1	36.4770	80/20	36.4770
961241	AF2-415 O1	15.6465	80/20	15.6465
961251	AF2-416	0.4363	Adder	0.97
NEWTON	NEWTON	0.2106	Confirmed LTF	0.2106
FARMERCITY	FARMERCITY	0.0111	Confirmed LTF	0.0111
VFT	VFT	95.7051	Confirmed LTF	95.7051
CALDERWOOD	CALDERWOOD	0.1078	Confirmed LTF	0.1078
PRAIRIE	PRAIRIE	0.5140	Confirmed LTF	0.5140
CHEOAH	CHEOAH	0.1091	Confirmed LTF	0.1091
EDWARDS	EDWARDS	0.0676	Confirmed LTF	0.0676
TILTON	TILTON	0.1216	Confirmed LTF	0.1216
GIBSON	GIBSON	0.1065	Confirmed LTF	0.1065
BLUEG	BLUEG	0.3385	Confirmed LTF	0.3385

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1085	Confirmed LTF	0.1085
CATAWBA	CATAWBA	0.0822	Confirmed LTF	0.0822

9.6.5 Index 5

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
100380135	218311	SEWAREN	PSE&G	218353	MINUEST_R	PSE&G	1	PS_P7-1_H2286+W2249_L T	tower	887.0	128.72	132.15	DC	30.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217104	FAIRLAWN_AB	-10.5010	Adder	-12.35
217196	RE CRAN E	0.3583	50/50	0.3583
217197	RE CRAN C	0.0379	50/50	0.0379
217198	V3-058 E	0.2658	50/50	0.2658
217199	V3-059 E	0.2658	50/50	0.2658
217212	AMBOY SO E	0.5229	50/50	0.5229
217213	AMBOY SO C	0.0570	50/50	0.0570
218359	V2-009 E3	0.4120	50/50	0.4120
218379	BRUNSWCK_AB	0.2063	50/50	0.2063
218428	ETC SOLAR C	0.0112	50/50	0.0112
218429	ETC SOLAR E	0.1538	50/50	0.1538
218437	BLK ROCK E	0.1624	50/50	0.1624
218438	BLK ROCK C	0.0179	50/50	0.0179
218439	SUMMTASSOC E	0.3225	50/50	0.3225
218440	SUMMTASSOC C	0.0341	50/50	0.0341
218545	WOODBRS1_C	0.0101	50/50	0.0101
218549	WOODBRS1_E	0.0955	50/50	0.0955
218554	WOODBRS2_C	0.0085	50/50	0.0085
218555	WOODBRS2_E	0.0800	50/50	0.0800
218558	WOODBRS3_C	0.0084	50/50	0.0084
218559	WOODBRS3_E	0.0797	50/50	0.0797
218565	BENNETSP1_C	0.0022	50/50	0.0022
218573	BENNETSP1_E	0.0208	50/50	0.0208
218584	BRUNSWSP1_C	0.0039	50/50	0.0039
218585	BRUNSWSP1_E	0.0373	50/50	0.0373
218591	BRUNSWSP2_C	0.0039	50/50	0.0039
218608	BRUNSWSP2_E	0.0373	50/50	0.0373
218612	MIDDLE2SP1_C	0.0016	50/50	0.0016
218625	MIDDLE2SP1_E	0.0150	50/50	0.0150
218626	MIDDLE2SP2_C	0.0016	50/50	0.0016
218627	MIDDLE2SP2_E	0.0150	50/50	0.0150
218636	METUCHSP1_C	0.0128	50/50	0.0128
218640	METUCHSP1_E	0.1210	50/50	0.1210
218655	METUCHSP2_C	0.0128	50/50	0.0128
218659	METUCHSP2_E	0.1210	50/50	0.1210
218672	KENILWRTH E	-1.5341	Adder	-1.8
218728	CNTRALGAS1 C	0.0529	50/50	0.0529
218729	CNTRALGAS1 E	0.3699	50/50	0.3699
218730	CNTRALGAS2 C	0.0502	50/50	0.0502
218731	CNTRALGAS2 E	0.3514	50/50	0.3514
219001	SEWAREN7GT	14.1167	50/50	14.1167

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219002	SEWAREN7ST	21.1751	50/50	21.1751
219612	MATRIX C	0.0215	50/50	0.0215
219613	MATRIX E	0.2043	50/50	0.2043
219878	V2-009 E4	0.2478	50/50	0.2478
219879	V2-009 C4	0.0261	50/50	0.0261
219880	V2-009 C3	0.0437	50/50	0.0437
219881	V2-009 E2	0.3560	50/50	0.3560
219882	V2-009 C2	0.0377	50/50	0.0377
219883	V2-009 E1	0.1777	50/50	0.1777
219884	V2-009 C1	0.0189	50/50	0.0189
917001	Z2-000 C O1	221.8058	50/50	221.8058
917002	Z2-000 E O1	1.3222	50/50	1.3222
917521	SEWARENG7E1	5.2255	50/50	5.2255
917522	SEWARENG7E2	5.2255	50/50	5.2255
920031	AA2-099 C	2.2187	50/50	2.2187
924131	AB2-057 C	0.0871	50/50	0.0871
924132	AB2-057 E	0.8240	50/50	0.8240
924431	AB2-092	-8.6298	Adder	-10.15
930092	AB1-021 E	-0.2077	Adder	-0.24
930901	AB1-139 C	0.1425	50/50	0.1425
930902	AB1-139 E	1.3553	50/50	1.3553
933333	AC2-145 BAT (Suspended)	0.0209	50/50	0.0209
937513	AD2-210 BAT (Suspended)	0.2318	50/50	0.2318
938281	AE1-041 C	0.0114	50/50	0.0114
938282	AE1-041 E	0.2975	50/50	0.2975
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	482.3520	50/50	482.3520
945803	AF1-245 BAT	36.2660	50/50	36.2660
946603	AF1-324 BAT	2.1448	50/50	2.1448
961232	AF2-414 BAT	73.8180	50/50	73.8180
961242	AF2-415 BAT	30.4080	50/50	30.4080
961252	AF2-416 BAT	1.8410	50/50	1.8410
WEC	WEC	0.1487	Confirmed LTF	0.1487
LGEE	LGEE	0.2716	Confirmed LTF	0.2716
CPL	CPL	0.3599	Confirmed LTF	0.3599
CBM-W2	CBM-W2	3.9803	Confirmed LTF	3.9803
NY	NY	5.4609	Confirmed LTF	5.4609
CBM-W1	CBM-W1	5.8422	Confirmed LTF	5.8422
TVA	TVA	0.6930	Confirmed LTF	0.6930
O-066	O-066	123.7152	Confirmed LTF	123.7152
CBM-S2	CBM-S2	3.0576	Confirmed LTF	3.0576
CBM-S1	CBM-S1	4.1918	Confirmed LTF	4.1918
G-007	G-007	1.3447	Confirmed LTF	1.3447
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.7580	Confirmed LTF	0.7580

9.6.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
100380143	218352	MDWRD_R	PSE&G	218304	BRUNSWC K	PSE&G	1	PS_P7-1_D22204+S2219_L T	tower	885.0	130.11	131.4	DC	25.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217082	WEATEXAS E	0.1436	Adder	0.17
217104	FAIRLAWN_AB	8.9753	Adder	10.56
217203	FBANKSOLAR E	0.0854	Adder	0.1
217205	WCALDSOLAR E	0.1988	Adder	0.23
217207	PARK ELE E	0.0357	Adder	0.04
217210	CAMDEN ST E	0.0394	Adder	0.05
217212	AMBOY SO E	0.5525	50/50	0.5525
217213	AMBOY SO C	0.0603	50/50	0.0603
217214	CENTRL HS E	0.0504	Adder	0.06
217216	BARNGR HS E	0.0450	Adder	0.05
217218	BAYON2SP2_E	0.0074	Adder	0.01
217249	HACKENSOLA E	0.0830	Adder	0.1
217254	BAYON2SP4_E	0.0055	Adder	0.01
217255	BAYON2SP3_E	0.0093	Adder	0.01
217256	COOKPTSP1_E	0.0050	Adder	0.01
217270	COOKPTSP2_E	0.0053	Adder	0.01
217272	COOKPTSP3_E	0.0050	Adder	0.01
217274	COOKPTSP4_E (Deactivation : 01/06/2015)	0.0042	Adder	0.0
217276	DOREMUSP1_E	0.0060	Adder	0.01
217280	DOREMUSP2_E	0.0064	Adder	0.01
217282	DOREMUSP3_E	0.0064	Adder	0.01
217284	DOREMUSP4_E	0.0060	Adder	0.01
217289	HOBK1SP1_E	0.0120	Adder	0.01
217291	HOBK1SP2_E	0.0120	Adder	0.01
217295	HOBK1SP3_E	0.0120	Adder	0.01
217297	HOBK1SP4_E	0.0120	Adder	0.01
217305	HILLDASP1_E	0.0020	Adder	0.0
217318	HILLDASP2_E	0.0020	Adder	0.0
217335	HILLDASP3_E	0.0020	Adder	0.0
217337	HILLDASP4_E	0.0020	Adder	0.0
217341	HOBK2SP1_E	0.0012	Adder	0.0
217343	HOBK2SP2_E	0.0012	Adder	0.0
217345	HOBK2SP3_E	0.0012	Adder	0.0
217350	HOBK2SP4_E	0.0012	Adder	0.0
217360	JACKPSSP1_E	0.0060	Adder	0.01
217364	JACKPSSP2_E	0.0060	Adder	0.01
217387	JACKPSSP3_E	0.0060	Adder	0.01
217389	JACKPSSP4_E	0.0060	Adder	0.01
217393	LEONIASP1_E	0.0152	Adder	0.02
217397	LEONIASP2_E	0.0152	Adder	0.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217399	LEONIASP3_E	0.0152	Adder	0.02
217406	LEONIASP4_E	0.0152	Adder	0.02
217410	MAYWOOSP1_E	0.0102	Adder	0.01
217418	MAYWOOSP2_E	0.0102	Adder	0.01
217420	MAYWOOSP3_E	0.0077	Adder	0.01
217425	MAYWOOSP4_E	0.0102	Adder	0.01
217449	NEWMILSP1_E	0.0080	Adder	0.01
217457	NEWMILSP2_E	0.0080	Adder	0.01
217460	NEWMILSP3_E	0.0080	Adder	0.01
217480	NEWMILSP4_E	0.0080	Adder	0.01
217487	SADDLESP1_E	0.0070	Adder	0.01
217489	SADDLESP2_E	0.0070	Adder	0.01
217517	SADDLESP3_E	0.0070	Adder	0.01
217519	SADDLESP4_E	0.0070	Adder	0.01
217530	WALDWKSP1_E	0.0019	Adder	0.0
217541	WALDWKSP2_E	0.0020	Adder	0.0
217543	WALDWKSP3_E	0.0004	Adder	0.0
217545	WALDWKSP4_E	0.0004	Adder	0.0
217547	WCALDWSP1_E	0.0029	Adder	0.0
217550	WCALDWSP2_E	0.0029	Adder	0.0
217560	WCALDWSP3_E	0.0029	Adder	0.0
217563	WCALDWSP4_E	0.0029	Adder	0.0
217565	ATHENISP1_E	0.0209	Adder	0.02
217567	ATHENISP2_E	0.0209	Adder	0.02
217569	ATHENISP3_E	0.0209	Adder	0.02
217572	MARIONSP1_E	0.0252	Adder	0.03
217576	MARIONSP2_E	0.0252	Adder	0.03
217583	MARIONSP3_E	0.0252	Adder	0.03
217585	WORNGESP1_E	0.0119	Adder	0.01
217600	WORNGESP2_E	0.0119	Adder	0.01
217610	WORNGESP3_E	0.0119	Adder	0.01
217612	CEDARGSP1_E	0.0099	Adder	0.01
217614	CEDARGSP2_E	0.0099	Adder	0.01
217618	ERUTHSP1_E	0.0211	Adder	0.02
217630	ERUTHSP2_E	0.0211	Adder	0.02
217640	FAIRLASP1_E	0.0374	Adder	0.04
217642	FAIRLASP2_E	0.0374	Adder	0.04
217660	HINCHMSP1_E	0.0089	Adder	0.01
217670	HINCHMSP2_E	0.0089	Adder	0.01
217680	NORTHASP1_E	0.0304	Adder	0.04
217689	NORTHASP2_E	0.0304	Adder	0.04
217691	SPRINGSP1_E	0.0178	Adder	0.02
217710	SPRINGSP2_E	0.0179	Adder	0.02
217721	BELLEVSP1_E	0.0357	Adder	0.04
218344	TOSCO_G6	0.7605	50/50	0.7605
218418	LINDEN_G5	2.4922	50/50	2.4922
218419	LINDEN_G6	2.4922	50/50	2.4922
218423	LINDEN_G21	6.5922	50/50	6.5922
218424	LINDEN_G22	6.5922	50/50	6.5922
218425	LINDEN_G12	7.1915	50/50	7.1915
218426	LINDEN_2ST	11.3866	50/50	11.3866
218428	ETC SOLAR C	0.0146	50/50	0.0146

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218429	ETC SOLAR E	0.2007	50/50	0.2007
218439	SUMMTASSOC E	0.6619	50/50	0.6619
218440	SUMMTASSOC C	0.0700	50/50	0.0700
218450	ALDENESP1_E	0.0233	Adder	0.03
218513	ALDENESP2_E	0.0234	Adder	0.03
218545	WOODBRS1_C	0.0107	50/50	0.0107
218549	WOODBRS1_E	0.1010	50/50	0.1010
218554	WOODBRS2_C	0.0089	50/50	0.0089
218555	WOODBRS2_E	0.0841	50/50	0.0841
218558	WOODBRS3_C	0.0089	50/50	0.0089
218559	WOODBRS3_E	0.0843	50/50	0.0843
218636	METUCHSP1_C	0.0158	50/50	0.0158
218640	METUCHSP1_E	0.1491	50/50	0.1491
218655	METUCHSP2_C	0.0158	50/50	0.0158
218659	METUCHSP2_E	0.1491	50/50	0.1491
218662	MINUESP1_C	0.0025	50/50	0.0025
218663	MINUESP1_E	0.0243	50/50	0.0243
218664	MINUESP2_C	0.0017	50/50	0.0017
218665	MINUESP2_E	0.0167	50/50	0.0167
218667	NWKS WTSP1_E	0.0425	Adder	0.05
218672	KENILWRTH E	1.1470	Adder	1.35
218675	WARINASP1_E	0.0486	Adder	0.06
218677	WARINASP2_E	0.0484	Adder	0.06
218727	LINSOLAR E	0.2539	Adder	0.3
218728	CNTRALGAS1 C	0.1085	50/50	0.1085
218729	CNTRALGAS1 E	0.7591	50/50	0.7591
218730	CNTRALGAS2 C	0.1083	50/50	0.1083
218731	CNTRALGAS2 E	0.7579	50/50	0.7579
219001	SEWAREN7GT	13.0122	50/50	13.0122
219002	SEWAREN7ST	19.5183	50/50	19.5183
219679	NRGCENTER E	-0.2903	Adder	-0.34
219881	V2-009 E2	-0.6569	Adder	-0.77
219883	V2-009 E1	-0.3278	Adder	-0.39
913101	Y1-026	6.0745	50/50	6.0745
917001	Z2-000 C O1	273.2849	50/50	273.2849
917002	Z2-000 E O1	1.6291	50/50	1.6291
917011	Z2-002 C	2.1575	50/50	2.1575
917521	SEWARENG7E1	4.8166	50/50	4.8166
917522	SEWARENG7E2	4.8166	50/50	4.8166
919712	AA2-058 E	-0.0688	Adder	-0.08
919802	AA2-066 E	-0.2903	Adder	-0.34
920031	AA2-099 C	2.0451	50/50	2.0451
924431	AB2-092	7.1104	Adder	8.37
930092	AB1-021 E	0.1989	Adder	0.23
930901	AB1-139 C	0.1756	50/50	0.1756
930902	AB1-139 E	1.6698	50/50	1.6698
934302	AD1-054 E	0.2011	Adder	0.24
936193	AD2-025 BAT	0.3222	Merchant Transmission	0.3222
938281	AE1-041 C	0.0141	50/50	0.0141
938282	AE1-041 E	0.3666	50/50	0.3666
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	444.6120	50/50	444.6120
943841	AF1-052 C	15.1012	Adder	17.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943842	AF1-052 E	0.0529	Adder	0.06
945723	AF1-237 BAT	28.9500	Merchant Transmission	28.9500
945801	AF1-245 C O1	10.6107	Adder	12.48
945802	AF1-245 E O1	15.9161	Adder	18.72
961231	AF2-414 O1	25.5677	Adder	56.75
961241	AF2-415 O1	11.2850	Adder	25.05
961251	AF2-416	0.7096	Adder	1.58
NEWTON	NEWTON	0.5415	Confirmed LTF	0.5415
FARMERCITY	FARMERCITY	0.0284	Confirmed LTF	0.0284
G-007A	G-007A	0.2062	Confirmed LTF	0.2062
VFT	VFT	139.4296	Confirmed LTF	139.4296
CALDERWOOD	CALDERWOOD	0.2649	Confirmed LTF	0.2649
PRAIRIE	PRAIRIE	1.3122	Confirmed LTF	1.3122
CHEOAH	CHEOAH	0.2673	Confirmed LTF	0.2673
EDWARDS	EDWARDS	0.1750	Confirmed LTF	0.1750
TILTON	TILTON	0.3150	Confirmed LTF	0.3150
GIBSON	GIBSON	0.2746	Confirmed LTF	0.2746
BLUEG	BLUEG	0.8732	Confirmed LTF	0.8732
TRIMBLE	TRIMBLE	0.2799	Confirmed LTF	0.2799
CATAWBA	CATAWBA	0.1953	Confirmed LTF	0.1953

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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
100380148	218353	MINUEST_R	PSE&G	218300	LINDEN	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	125.94	129.37	DC	30.41

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217104	FAIRLAWN_AB	-10.5010	Adder	-12.35
217196	RE CRAN E	0.3583	50/50	0.3583
217197	RE CRAN C	0.0379	50/50	0.0379
217198	V3-058 E	0.2658	50/50	0.2658
217199	V3-059 E	0.2658	50/50	0.2658
217212	AMBOY SO E	0.5229	50/50	0.5229
217213	AMBOY SO C	0.0570	50/50	0.0570
218359	V2-009 E3	0.4120	50/50	0.4120
218379	BRUNSWCK_AB	0.2063	50/50	0.2063
218428	ETC SOLAR C	0.0112	50/50	0.0112
218429	ETC SOLAR E	0.1538	50/50	0.1538
218437	BLK ROCK E	0.1624	50/50	0.1624
218438	BLK ROCK C	0.0179	50/50	0.0179
218439	SUMMTASSOC E	0.3225	50/50	0.3225
218440	SUMMTASSOC C	0.0341	50/50	0.0341
218545	WOODBRS1_C	0.0101	50/50	0.0101
218549	WOODBRS1_E	0.0955	50/50	0.0955
218554	WOODBRS2_C	0.0085	50/50	0.0085
218555	WOODBRS2_E	0.0800	50/50	0.0800
218558	WOODBRS3_C	0.0084	50/50	0.0084
218559	WOODBRS3_E	0.0797	50/50	0.0797
218565	BENNETSP1_C	0.0022	50/50	0.0022
218573	BENNETSP1_E	0.0208	50/50	0.0208
218584	BRUNSWSP1_C	0.0039	50/50	0.0039
218585	BRUNSWSP1_E	0.0373	50/50	0.0373
218591	BRUNSWSP2_C	0.0039	50/50	0.0039
218608	BRUNSWSP2_E	0.0373	50/50	0.0373
218612	MIDDL2SP1_C	0.0016	50/50	0.0016
218625	MIDDL2SP1_E	0.0150	50/50	0.0150
218626	MIDDL2SP2_C	0.0016	50/50	0.0016
218627	MIDDL2SP2_E	0.0150	50/50	0.0150
218636	METUCHSP1_C	0.0128	50/50	0.0128
218640	METUCHSP1_E	0.1210	50/50	0.1210
218655	METUCHSP2_C	0.0128	50/50	0.0128
218659	METUCHSP2_E	0.1210	50/50	0.1210
218662	MINUESP1_C	0.0043	50/50	0.0043
218663	MINUESP1_E	0.0415	50/50	0.0415
218672	KENILWRTH E	-1.5341	Adder	-1.8
218728	CNTRALGAS1 C	0.0529	50/50	0.0529
218729	CNTRALGAS1 E	0.3699	50/50	0.3699
218730	CNTRALGAS2 C	0.0502	50/50	0.0502
218731	CNTRALGAS2 E	0.3514	50/50	0.3514

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219001	SEWAREN7GT	14.1167	50/50	14.1167
219002	SEWAREN7ST	21.1751	50/50	21.1751
219612	MATRIX C	0.0215	50/50	0.0215
219613	MATRIX E	0.2043	50/50	0.2043
219878	V2-009 E4	0.2478	50/50	0.2478
219879	V2-009 C4	0.0261	50/50	0.0261
219880	V2-009 C3	0.0437	50/50	0.0437
219881	V2-009 E2	0.3560	50/50	0.3560
219882	V2-009 C2	0.0377	50/50	0.0377
219883	V2-009 E1	0.1777	50/50	0.1777
219884	V2-009 C1	0.0189	50/50	0.0189
917001	Z2-000 C O1	221.8058	50/50	221.8058
917002	Z2-000 E O1	1.3222	50/50	1.3222
917521	SEWARENG7E1	5.2255	50/50	5.2255
917522	SEWARENG7E2	5.2255	50/50	5.2255
920031	AA2-099 C	2.2187	50/50	2.2187
924131	AB2-057 C	0.0871	50/50	0.0871
924132	AB2-057 E	0.8240	50/50	0.8240
924431	AB2-092	-8.6298	Adder	-10.15
930092	AB1-021 E	-0.2077	Adder	-0.24
930901	AB1-139 C	0.1425	50/50	0.1425
930902	AB1-139 E	1.3553	50/50	1.3553
933333	AC2-145 BAT (Suspended)	0.0209	50/50	0.0209
937513	AD2-210 BAT (Suspended)	0.2318	50/50	0.2318
938281	AE1-041 C	0.0114	50/50	0.0114
938282	AE1-041 E	0.2975	50/50	0.2975
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	482.3520	50/50	482.3520
945803	AF1-245 BAT	36.2660	50/50	36.2660
946603	AF1-324 BAT	2.1448	50/50	2.1448
961232	AF2-414 BAT	73.8180	50/50	73.8180
961242	AF2-415 BAT	30.4080	50/50	30.4080
961252	AF2-416 BAT	1.8410	50/50	1.8410
WEC	WEC	0.1487	Confirmed LTF	0.1487
LGEE	LGEE	0.2716	Confirmed LTF	0.2716
CPL	CPL	0.3599	Confirmed LTF	0.3599
CBM-W2	CBM-W2	3.9803	Confirmed LTF	3.9803
NY	NY	5.4609	Confirmed LTF	5.4609
CBM-W1	CBM-W1	5.8422	Confirmed LTF	5.8422
TVA	TVA	0.6930	Confirmed LTF	0.6930
O-066	O-066	123.7152	Confirmed LTF	123.7152
CBM-S2	CBM-S2	3.0576	Confirmed LTF	3.0576
CBM-S1	CBM-S1	4.1918	Confirmed LTF	4.1918
G-007	G-007	1.3447	Confirmed LTF	1.3447
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.7580	Confirmed LTF	0.7580

9.6.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
100380238	218355	NEWDQVR_H	PSE&G	218320	FANWOOD_1	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	100.74	102.92	DC	19.32

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206638	28PEAPACK	-0.2814	Adder	-0.33
206679	28M&M S721	-0.7152	Adder	-0.84
207411	AA2-060 BAT	0.5602	Merchant Transmission	0.5602
207414	AA2-061 BAT	0.7469	Merchant Transmission	0.7469
217104	FAIRLAWN_AB	-7.5026	Adder	-8.83
217196	RE CRAN E	0.3354	50/50	0.3354
217197	RE CRAN C	0.0355	50/50	0.0355
217198	V3-058 E	0.2490	50/50	0.2490
217199	V3-059 E	0.2490	50/50	0.2490
217212	AMBOY SO E	0.4134	50/50	0.4134
217213	AMBOY SO C	0.0451	50/50	0.0451
218359	V2-009 E3	0.3275	Adder	0.39
218379	BRUNSWCK_AB	0.1933	50/50	0.1933
218428	ETC SOLAR C	0.0099	50/50	0.0099
218429	ETC SOLAR E	0.1356	50/50	0.1356
218437	BLK ROCK E	0.1520	50/50	0.1520
218438	BLK ROCK C	0.0168	50/50	0.0168
218439	SUMMTASSOC E	0.2901	50/50	0.2901
218440	SUMMTASSOC C	0.0307	50/50	0.0307
218545	WOODBRS1_C	0.0080	50/50	0.0080
218549	WOODBRS1_E	0.0755	50/50	0.0755
218554	WOODBRS2_C	0.0067	50/50	0.0067
218555	WOODBRS2_E	0.0630	50/50	0.0630
218558	WOODBRS3_C	0.0067	50/50	0.0067
218559	WOODBRS3_E	0.0630	50/50	0.0630
218573	BENNETSP1_E	0.0164	Adder	0.02
218578	BENNETSP2_E	0.0159	Adder	0.02
218584	BRUNSWSP1_C	0.0037	50/50	0.0037
218585	BRUNSWSP1_E	0.0350	50/50	0.0350
218591	BRUNSWSP2_C	0.0037	50/50	0.0037
218608	BRUNSWSP2_E	0.0350	50/50	0.0350
218612	MIDDLE2SP1_C	0.0015	50/50	0.0015
218625	MIDDLE2SP1_E	0.0141	50/50	0.0141
218626	MIDDLE2SP2_C	0.0015	50/50	0.0015
218627	MIDDLE2SP2_E	0.0141	50/50	0.0141
218636	METUCHSP1_C	0.0113	50/50	0.0113
218640	METUCHSP1_E	0.1065	50/50	0.1065
218655	METUCHSP2_C	0.0113	50/50	0.0113
218659	METUCHSP2_E	0.1065	50/50	0.1065
218672	KENILWRTH E	-0.7094	Adder	-0.83
218728	CNTRALGAS1 C	0.0475	50/50	0.0475

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218729	CNTRALGAS1 E	0.3327	50/50	0.3327
218730	CNTRALGAS2 C	0.0448	50/50	0.0448
218731	CNTRALGAS2 E	0.3138	50/50	0.3138
219001	SEWAREN7GT	10.1882	50/50	10.1882
219002	SEWAREN7ST	15.2823	50/50	15.2823
219612	MATRIX C	0.0201	50/50	0.0201
219613	MATRIX E	0.1912	50/50	0.1912
219878	V2-009 E4	0.1970	Adder	0.23
219881	V2-009 E2	0.3332	50/50	0.3332
219882	V2-009 C2	0.0353	50/50	0.0353
219883	V2-009 E1	0.1663	50/50	0.1663
219884	V2-009 C1	0.0177	50/50	0.0177
917001	Z2-000 C O1	195.2543	50/50	195.2543
917002	Z2-000 E O1	1.1640	50/50	1.1640
917521	SEWARENG7E1	3.7713	50/50	3.7713
917522	SEWARENG7E2	3.7713	50/50	3.7713
920031	AA2-099 C	1.6013	50/50	1.6013
924131	AB2-057 C	0.0816	50/50	0.0816
924132	AB2-057 E	0.7718	50/50	0.7718
924431	AB2-092	-5.4854	Adder	-6.45
930092	AB1-021 E	-0.2022	Adder	-0.24
930901	AB1-139 C	0.1255	50/50	0.1255
930902	AB1-139 E	1.1931	50/50	1.1931
933332	AC2-145 E (Suspended)	-0.0184	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0216	50/50	0.0216
937513	AD2-210 BAT (Suspended)	0.2391	50/50	0.2391
938281	AE1-041 C	0.0100	50/50	0.0100
938282	AE1-041 E	0.2619	50/50	0.2619
938413	AE1-060 BAT	1.6909	Merchant Transmission	1.6909
938601	AE1-081 C	-0.0766	Adder	-0.09
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	348.1200	50/50	348.1200
942253	AE2-237 BAT	10.1532	Merchant Transmission	10.1532
943483	AF1-019 BAT	1.8610	Merchant Transmission	1.8610
945803	AF1-245 BAT	26.4520	50/50	26.4520
946603	AF1-324 BAT	2.2166	50/50	2.2166
946613	AF1-325 BAT	1.8844	Merchant Transmission	1.8844
946633	AF1-327 BAT	1.5924	Merchant Transmission	1.5924
946643	AF1-328 BAT	1.5858	Merchant Transmission	1.5858
961232	AF2-414 BAT	36.5160	50/50	36.5160
961242	AF2-415 BAT	19.3200	50/50	19.3200
961252	AF2-416 BAT	1.3192	50/50	1.3192
961512	AF1-442 NFTW	4.2232	Merchant Transmission	4.2232
961522	AF1-443 NFTW	4.2245	Merchant Transmission	4.2245
WEC	WEC	0.0687	Confirmed LTF	0.0687
LGEE	LGEE	0.1267	Confirmed LTF	0.1267
CPL	CPL	0.1925	Confirmed LTF	0.1925
CBM-W2	CBM-W2	1.9001	Confirmed LTF	1.9001
NY	NY	3.3064	Confirmed LTF	3.3064
CBM-W1	CBM-W1	2.6646	Confirmed LTF	2.6646
TVA	TVA	0.3374	Confirmed LTF	0.3374
O-066	O-066	88.6502	Confirmed LTF	88.6502

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	1.5895	Confirmed LTF	1.5895
CBM-S1	CBM-S1	2.0278	Confirmed LTF	2.0278
G-007	G-007	1.6182	Confirmed LTF	1.6182
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.3543	Confirmed LTF	0.3543

9.6.9 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
100380130	218357	PRSSNAV_R	PSE&G	218352	MDWRD_R	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	132.49	133.79	DC	25.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217082	WEATEXAS E	0.1436	Adder	0.17
217104	FAIRLAWN_AB	8.9765	Adder	10.56
217203	FBANKSOLAR E	0.0854	Adder	0.1
217205	WCALDSOLAR E	0.1988	Adder	0.23
217207	PARK ELE E	0.0357	Adder	0.04
217210	CAMDEN ST E	0.0394	Adder	0.05
217212	AMBOY SO E	0.5525	50/50	0.5525
217213	AMBOY SO C	0.0603	50/50	0.0603
217214	CENTRL HS E	0.0504	Adder	0.06
217216	BARNGR HS E	0.0450	Adder	0.05
217218	BAYON2SP2_E	0.0074	Adder	0.01
217249	HACKENSOLA E	0.0830	Adder	0.1
217254	BAYON2SP4_E	0.0055	Adder	0.01
217255	BAYON2SP3_E	0.0093	Adder	0.01
217256	COOKPTSP1_E	0.0050	Adder	0.01
217270	COOKPTSP2_E	0.0053	Adder	0.01
217272	COOKPTSP3_E	0.0050	Adder	0.01
217274	COOKPTSP4_E (Deactivation : 01/06/2015)	0.0042	Adder	0.0
217276	DOREMUSP1_E	0.0060	Adder	0.01
217280	DOREMUSP2_E	0.0064	Adder	0.01
217282	DOREMUSP3_E	0.0064	Adder	0.01
217284	DOREMUSP4_E	0.0060	Adder	0.01
217289	HOBK1SP1_E	0.0120	Adder	0.01
217291	HOBK1SP2_E	0.0120	Adder	0.01
217295	HOBK1SP3_E	0.0120	Adder	0.01
217297	HOBK1SP4_E	0.0120	Adder	0.01
217305	HILLDASP1_E	0.0020	Adder	0.0
217318	HILLDASP2_E	0.0020	Adder	0.0
217335	HILLDASP3_E	0.0020	Adder	0.0
217337	HILLDASP4_E	0.0020	Adder	0.0
217341	HOBK2SP1_E	0.0012	Adder	0.0
217343	HOBK2SP2_E	0.0012	Adder	0.0
217345	HOBK2SP3_E	0.0012	Adder	0.0
217350	HOBK2SP4_E	0.0012	Adder	0.0
217360	JACKPSSP1_E	0.0060	Adder	0.01
217364	JACKPSSP2_E	0.0060	Adder	0.01
217387	JACKPSSP3_E	0.0060	Adder	0.01
217389	JACKPSSP4_E	0.0060	Adder	0.01
217393	LEONIASP1_E	0.0152	Adder	0.02
217397	LEONIASP2_E	0.0152	Adder	0.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217399	LEONIASP3_E	0.0152	Adder	0.02
217406	LEONIASP4_E	0.0152	Adder	0.02
217410	MAYWOOSP1_E	0.0102	Adder	0.01
217418	MAYWOOSP2_E	0.0102	Adder	0.01
217420	MAYWOOSP3_E	0.0077	Adder	0.01
217425	MAYWOOSP4_E	0.0102	Adder	0.01
217449	NEWMILSP1_E	0.0080	Adder	0.01
217457	NEWMILSP2_E	0.0080	Adder	0.01
217460	NEWMILSP3_E	0.0080	Adder	0.01
217480	NEWMILSP4_E	0.0080	Adder	0.01
217487	SADDLESP1_E	0.0070	Adder	0.01
217489	SADDLESP2_E	0.0070	Adder	0.01
217517	SADDLESP3_E	0.0070	Adder	0.01
217519	SADDLESP4_E	0.0070	Adder	0.01
217530	WALDWKSP1_E	0.0019	Adder	0.0
217541	WALDWKSP2_E	0.0020	Adder	0.0
217543	WALDWKSP3_E	0.0004	Adder	0.0
217545	WALDWKSP4_E	0.0004	Adder	0.0
217547	WCALDWSP1_E	0.0029	Adder	0.0
217550	WCALDWSP2_E	0.0029	Adder	0.0
217560	WCALDWSP3_E	0.0029	Adder	0.0
217563	WCALDWSP4_E	0.0029	Adder	0.0
217565	ATHENISP1_E	0.0209	Adder	0.02
217567	ATHENISP2_E	0.0209	Adder	0.02
217569	ATHENISP3_E	0.0209	Adder	0.02
217572	MARIONSP1_E	0.0252	Adder	0.03
217576	MARIONSP2_E	0.0252	Adder	0.03
217583	MARIONSP3_E	0.0252	Adder	0.03
217585	WORNGESP1_E	0.0119	Adder	0.01
217600	WORNGESP2_E	0.0119	Adder	0.01
217610	WORNGESP3_E	0.0119	Adder	0.01
217612	CEDARGSP1_E	0.0099	Adder	0.01
217614	CEDARGSP2_E	0.0099	Adder	0.01
217618	ERUTHSP1_E	0.0211	Adder	0.02
217630	ERUTHSP2_E	0.0211	Adder	0.02
217640	FAIRLASP1_E	0.0374	Adder	0.04
217642	FAIRLASP2_E	0.0374	Adder	0.04
217660	HINCHMSP1_E	0.0089	Adder	0.01
217670	HINCHMSP2_E	0.0089	Adder	0.01
217680	NORTHASP1_E	0.0304	Adder	0.04
217689	NORTHASP2_E	0.0304	Adder	0.04
217691	SPRINGSP1_E	0.0178	Adder	0.02
217710	SPRINGSP2_E	0.0179	Adder	0.02
217721	BELLEVSP1_E	0.0357	Adder	0.04
218344	TOSCO_G6	0.7606	50/50	0.7606
218418	LINDEN_G5	2.4924	50/50	2.4924
218419	LINDEN_G6	2.4924	50/50	2.4924
218423	LINDEN_G21	6.5928	50/50	6.5928
218424	LINDEN_G22	6.5928	50/50	6.5928
218425	LINDEN_G12	7.1922	50/50	7.1922
218426	LINDEN_2ST	11.3876	50/50	11.3876
218428	ETC SOLAR C	0.0146	50/50	0.0146

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218429	ETC SOLAR E	0.2007	50/50	0.2007
218450	ALDENESP1_E	0.0233	Adder	0.03
218513	ALDENESP2_E	0.0234	Adder	0.03
218545	WOODBRS1_C	0.0107	50/50	0.0107
218549	WOODBRS1_E	0.1010	50/50	0.1010
218554	WOODBRS2_C	0.0089	50/50	0.0089
218555	WOODBRS2_E	0.0841	50/50	0.0841
218558	WOODBRS3_C	0.0089	50/50	0.0089
218559	WOODBRS3_E	0.0843	50/50	0.0843
218636	METUCHSP1_C	0.0158	50/50	0.0158
218640	METUCHSP1_E	0.1491	50/50	0.1491
218655	METUCHSP2_C	0.0158	50/50	0.0158
218659	METUCHSP2_E	0.1491	50/50	0.1491
218662	MINUESP1_C	0.0025	50/50	0.0025
218663	MINUESP1_E	0.0243	50/50	0.0243
218664	MINUESP2_C	0.0017	50/50	0.0017
218665	MINUESP2_E	0.0167	50/50	0.0167
218667	NWKS WTSP1_E	0.0425	Adder	0.05
218672	KENILWRTH E	1.1471	Adder	1.35
218675	WARINASP1_E	0.0487	Adder	0.06
218677	WARINASP2_E	0.0484	Adder	0.06
218727	LINSOLAR E	0.2539	Adder	0.3
219001	SEWAREN7GT	13.0129	50/50	13.0129
219002	SEWAREN7ST	19.5193	50/50	19.5193
219679	NRGCENTER E	-0.2903	Adder	-0.34
219881	V2-009 E2	-0.6569	Adder	-0.77
219883	V2-009 E1	-0.3278	Adder	-0.39
913101	Y1-026	6.0748	50/50	6.0748
917001	Z2-000 C O1	273.2983	50/50	273.2983
917002	Z2-000 E O1	1.6292	50/50	1.6292
917011	Z2-002 C	2.1576	50/50	2.1576
917521	SEWARENG7E1	4.8169	50/50	4.8169
917522	SEWARENG7E2	4.8169	50/50	4.8169
919712	AA2-058 E	-0.0688	Adder	-0.08
919802	AA2-066 E	-0.2903	Adder	-0.34
920031	AA2-099 C	2.0453	50/50	2.0453
924431	AB2-092	7.1113	Adder	8.37
930092	AB1-021 E	0.1989	Adder	0.23
930901	AB1-139 C	0.1756	50/50	0.1756
930902	AB1-139 E	1.6699	50/50	1.6699
934302	AD1-054 E	0.2011	Adder	0.24
936193	AD2-025 BAT	0.3221	Merchant Transmission	0.3221
938281	AE1-041 C	0.0141	50/50	0.0141
938282	AE1-041 E	0.3666	50/50	0.3666
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	444.6360	50/50	444.6360
943841	AF1-052 C	15.1031	Adder	17.77
943842	AF1-052 E	0.0529	Adder	0.06
945723	AF1-237 BAT	28.9480	Merchant Transmission	28.9480
945801	AF1-245 C O1	10.6121	Adder	12.48
945802	AF1-245 E O1	15.9181	Adder	18.73
961231	AF2-414 O1	25.5704	Adder	56.76
961241	AF2-415 O1	11.2864	Adder	25.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961251	AF2-416	0.7097	Adder	1.58
NEWTON	NEWTON	0.5405	Confirmed LTF	0.5405
FARMERCITY	FARMERCITY	0.0283	Confirmed LTF	0.0283
G-007A	G-007A	0.2086	Confirmed LTF	0.2086
VFT	VFT	139.4361	Confirmed LTF	139.4361
CALDERWOOD	CALDERWOOD	0.2644	Confirmed LTF	0.2644
PRAIRIE	PRAIRIE	1.3096	Confirmed LTF	1.3096
CHEOAH	CHEOAH	0.2668	Confirmed LTF	0.2668
EDWARDS	EDWARDS	0.1746	Confirmed LTF	0.1746
TILTON	TILTON	0.3144	Confirmed LTF	0.3144
GIBSON	GIBSON	0.2741	Confirmed LTF	0.2741
BLUEG	BLUEG	0.8715	Confirmed LTF	0.8715
TRIMBLE	TRIMBLE	0.2794	Confirmed LTF	0.2794
CATAWBA	CATAWBA	0.1950	Confirmed LTF	0.1950

9.6.10 Index 10

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379455	218469	METUCHEN	PSE&G	218357	PRSENAV_R	PSE&G	1	PS_P1-2_S-2219	single	885.0	135.69	138.1	DC	25.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217065	ECRRF_1	0.9192	80/20	0.9192
217081	WEATEXAS C	0.0183	80/20	0.0183
217104	FAIRLAWN_AB	10.9773	80/20	10.9773
217118	BERGEN 1 ST	5.8226	80/20	5.8226
217139	BERGEN_2CT2	4.9564	80/20	4.9564
217140	BERGEN_2ST	7.3273	80/20	7.3273
217209	CENTRL HS C	0.0090	80/20	0.0090
217211	CAMDEN ST C	0.0050	80/20	0.0050
217213	AMBOY SO C	0.0677	80/20	0.0677
217217	BAYON2SP2_C	0.0009	80/20	0.0009
217250	BAYON2SP4_C	0.0007	80/20	0.0007
217323	ECRRF_2	0.9189	80/20	0.9189
217571	MARIONSP1_C	0.0032	80/20	0.0032
217575	MARIONSP2_C	0.0032	80/20	0.0032
217580	MARIONSP3_C	0.0032	80/20	0.0032
217617	ERUTHSP1_C	0.0027	80/20	0.0027
217619	ERUTHSP2_C	0.0027	80/20	0.0027
217637	FAIRLASP1_C	0.0048	80/20	0.0048
217641	FAIRLASP2_C	0.0048	80/20	0.0048
217675	NORTHASP1_C	0.0039	80/20	0.0039
217688	NORTHASP2_C	0.0039	80/20	0.0039
217915	BERGEN_11	3.3063	80/20	3.3063
217916	BERGEN_12	3.3063	80/20	3.3063
217917	BERGEN_13	3.3063	80/20	3.3063
217918	BERGEN_14	3.3063	80/20	3.3063
218092	PRIMEENG_G	1.9868	80/20	1.9868
218318	LINDEN_26	1.3783	80/20	1.3783
218344	TOSCO_G6	0.7660	80/20	0.7660
218418	LINDEN_G5	2.5284	80/20	2.5284
218419	LINDEN_G6	2.5284	80/20	2.5284
218423	LINDEN_G21	6.6879	80/20	6.6879
218424	LINDEN_G22	6.6879	80/20	6.6879
218425	LINDEN_G12	7.2959	80/20	7.2959
218426	LINDEN_2ST	11.5518	80/20	11.5518
218435	LINDEN_1GT	6.6336	80/20	6.6336
218436	LINDEN_G11	11.3877	80/20	11.3877
218545	WOODBRS1_C	0.0120	80/20	0.0120
218554	WOODBRS2_C	0.0100	80/20	0.0100
218558	WOODBRS3_C	0.0100	80/20	0.0100
218636	METUCHSP1_C	0.0179	80/20	0.0179
218655	METUCHSP2_C	0.0179	80/20	0.0179

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218662	MINUESP1_C	0.0027	80/20	0.0027
218664	MINUESP2_C	0.0016	80/20	0.0016
218666	NWKS WTSP1_C	0.0054	80/20	0.0054
218674	WARINASP1_C	0.0060	80/20	0.0060
218676	WARINASP2_C	0.0060	80/20	0.0060
218726	LINSOLAR C	0.0322	80/20	0.0322
219001	SEWAREN7GT	14.5199	80/20	14.5199
219002	SEWAREN7ST	21.7798	80/20	21.7798
219035	LINDEN_G8	2.2481	80/20	2.2481
219036	LINDEN_G7	2.2481	80/20	2.2481
913101	Y1-026	6.1173	80/20	6.1173
917001	Z2-000 C O1	309.1163	80/20	309.1163
917011	Z2-002 C	2.1888	80/20	2.1888
920031	AA2-099 C	2.2821	80/20	2.2821
924431	AB2-092	8.6593	80/20	8.6593
930901	AB1-139 C	0.1987	80/20	0.1987
938281	AE1-041 C	0.0159	80/20	0.0159
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	496.1280	80/20	496.1280
943841	AF1-052 C	15.7176	Adder	18.49
945801	AF1-245 C O1	11.0412	Adder	12.99
961231	AF2-414 O1	58.2330	80/20	58.2330
961241	AF2-415 O1	25.9305	80/20	25.9305
961251	AF2-416	0.7380	Adder	1.64
NEWTON	NEWTON	0.6221	Confirmed LTF	0.6221
FARMERCITY	FARMERCITY	0.0326	Confirmed LTF	0.0326
G-007A	G-007A	2.4071	Confirmed LTF	2.4071
VFT	VFT	140.0295	Confirmed LTF	140.0295
CALDERWOOD	CALDERWOOD	0.3022	Confirmed LTF	0.3022
PRAIRIE	PRAIRIE	1.5085	Confirmed LTF	1.5085
CHEOAH	CHEOAH	0.3043	Confirmed LTF	0.3043
EDWARDS	EDWARDS	0.2013	Confirmed LTF	0.2013
TILTON	TILTON	0.3623	Confirmed LTF	0.3623
GIBSON	GIBSON	0.3156	Confirmed LTF	0.3156
BLUEG	BLUEG	1.0034	Confirmed LTF	1.0034
TRIMBLE	TRIMBLE	0.3217	Confirmed LTF	0.3217
CATAWBA	CATAWBA	0.2212	Confirmed LTF	0.2212

9.7 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
AA2-058	Mount Rose 13kV	Partially in Service - Under Construction
AA2-060	Branchville-Sussex #1 34kV	Engineering and Procurement
AA2-061	Branchville-Sussex #2 34.5kV	Engineering and Procurement
AA2-066	Penns Neck 13kV	In Service
AA2-099	Sewaren 230kV	In Service
AB1-021	West Caldwell 13kV	Partially in Service - Under Construction
AB1-139	Metuchen 26kV	In Service
AB2-057	Brunswick 26kV	In Service
AB2-092	Bergen 138kV	Partially in Service - Under Construction
AC2-145	Beach Glen 4.8kV	Suspended
AD1-054	Bergen 13 kV	In Service
AD2-025	Hillsborough 13 kV	Engineering and Procurement
AD2-210	Cedar Knolls 12.5 kV	Suspended
AE1-037	Deans 500kV	Withdrawn
AE1-041	Edison 4kV	In Service
AE1-060	Kittatinny-Newton 34.5 kV	Active
AE1-081	Landing 12.47 kV	Engineering and Procurement
AE2-014	Sewaren 230 kV	Withdrawn
AE2-237	Vernon-Sugar Loaf #2 115 kV	Active
AF1-019	Branchville-Holiday Lakes 34.5 kV	Active
AF1-052	Mason 230 kV	Active
AF1-237	Mercer 230 kV	Active
AF1-245	Hudson 230 kV	Active
AF1-324	Greystone-West Denville 34.5 kV	Active
AF1-325	Sparta-Woodruff's Gap 34.5 kV	Active
AF1-327	Pohatcong-Newburgh 34.5 kV	Active
AF1-328	Hackettstown-Pohatcong 34.5 kV	Active
AF1-442	N/A	N/A
AF1-443	N/A	N/A
AF2-414	Bergen 345 kV	Active
AF2-415	Bergen 138 kV	Active
AF2-416	Bergen 26 kV	Active
V2-009	Plainsboro & Devils Brook 13kV	Under Construction
V3-058	Brunswick 26.4kV	In Service
V3-059	Brunswick 26.4kV	In Service
Y1-026	Tosco 230kV	In Service
Z2-000	N/A	N/A
Z2-002	Linden 230kV	In Service

9.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
PS_P2-3_LIND2_4-7	CONTINGENCY 'PS_P2-3_LIND2_4-7' DISCONNECT BRANCH FROM BUS 217050 TO BUS 218300 CKT 1 /* LINDEN 230/138 DISCONNECT BUS 219046 /* TOSCO 3 BUS SECTION END
PS_P1-2_S-2297	CONTINGENCY 'PS_P1-2_S-2297' /* WILLIAMS PIPELINE TO ROSELAND TRIP LINE FROM BUS 216950 TO BUS 217870 CKT 1 /* PIPELINE TO ROSELAND END
PS_P7-1_G2207+R2218	CONTINGENCY 'PS_P7-1_G2207+R2218' /* LINDEN - DEAN & LINDEN - SEWARREN DISCONNECT BUS 218354 /* MINUE STREET G DISCONNECT BUS 218353 /* MINUE STREET R MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218413 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T3 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218410 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WARINICO T1 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 END
PS_P7-1_D2204+S2219_LT	CONTINGENCY 'PS_P7-1_D2204+S2219_LT' /* DEANS - BRUSWICK & DEANS - METUCHEN TRIP LINE FROM BUS 218304 TO BUS 218306 CKT 1 DISCONNECT BUS 218358 /* PIERSON AVE S CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z/* PIERSON AVE DISCONNECT BUS 218351 /* MDWRD_S CLOSE LINE FROM BUS 218392 TO BUS 218393 CKT Z/* MDWRD_L1_L2 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO KILMER T4 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO LAFAYET T2 MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO LAFAYET T2 END

Contingency Name	Contingency Definition
PS_P7-1_H2286+W2249_LT	CONTINGENCY 'PS_P7-1_H2286+W2249_LT' /* DEANS - WESTFIELD & METUCHEN - FANWOOD DISCONNECT BUS 218355 /* NEW DOVER H DISCONNECT BUS 218320 /* FANWOOD 1 DISCONNECT BUS 218305 /* WESTFIELD 1 DISCONNECT BUS 218356 /* NEW DOVER W CLOSE LINE FROM BUS 218415 TO BUS 218416 CKT Z /* WESTFIELD CLOSE LINE FROM BUS 218380 TO BUS 218381 CKT Z /* FANWOOD MOVE 8 MW LOAD FROM BUS 218380 TO BUS 218374 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO ALDENE T10 MOVE 8 MW LOAD FROM BUS 218381 TO BUS 216926 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T1 MOVE 8 MW LOAD FROM BUS 218380 TO BUS 216927 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T2 MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218412 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO WDBRDG T2 MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218391 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO LAFAYET T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218401 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218402 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T2 END
PS_P2-3_DEAN_9-10	CONTINGENCY 'PS_P2-3_DEAN_9-10' TRIP LINE FROM BUS 218304 TO BUS 218306 CKT 1 /* DEANS TO BRUNSWICK DISCONNECT BRANCH FROM BUS 200006 TO BUS 218306 CKT 3 END
PS_P1-2_H-2286	CONTINGENCY 'PS_P1-2_H-2286' /* FANWOOD TO METUCHEN DISCONNECT BUS 218355 /* NEW DOVER REMOVE H DISCONNECT BUS 218320 /* REMOVE FANWOOD SECTION 1 CLOSE LINE FROM BUS 218398 TO BUS 218399 CKT Z /* NEW DOVER CLOSE LINE FROM BUS 218380 TO BUS 218381 CKT Z /* FANWOOD END
PS_P1-2_Z-2331	CONTINGENCY 'PS_P1-2_Z-2331' /* METUCHEN_BRUNSWICK DISCONNECT BUS 218352 /* MEADOWS ROAD R CLOSE LINE FROM BUS 218393 TO BUS 218392 CKT Z /* MEADOW ROAD DISCONNECT BUS 218357 /* PIERSON AVE R CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z /* PIERSON AVE END

Contingency Name	Contingency Definition
PS_P7-1_G2207+H2286_LT	CONTINGENCY 'PS_P7-1_G2207+H2286_LT' /*FANWOOD-METUCHEN & LINDEN-DEANS DISCONNECT BUS 218354 /* MINUE STREET G DISCONNECT BUS 218355 /* NEW DOVERH DISCONNECT BUS 218320 /* FANWOOD 1 CLOSE LINE FROM BUS 218398 TO BUS 218399 CKT Z /* NEW DOVER MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218412 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO WDBRDG T2 MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218391 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO LAFAYET T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218401 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218402 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T2 CLOSE LINE FROM BUS 218380 TO BUS 218381 CKT Z /* FANWOOD MOVE 8 MW LOAD FROM BUS 218381 TO BUS 218415 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO WESTFIELD T1 MOVE 8 MW LOAD FROM BUS 218380 TO BUS 218374 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO ALDENE T10 MOVE 8 MW LOAD FROM BUS 218381 TO BUS 216926 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T1 MOVE 8 MW LOAD FROM BUS 218380 TO BUS 216927 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T2 CLOSE LINE FROM BUS 218396 TO BUS 218397 CKT Z /* MINUE STREET MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218413 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T3 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218410 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WARINICO T1 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 END
PS_P1-2_Y-2277	CONTINGENCY 'PS_P1-2_Y-2277' /* CEDAR GROVE TO ROSELAND TRIP LINE FROM BUS 216915 TO BUS 216950 CKT 1 /* ROSELAND TO CEDAR GROVE DISCONNECT BRANCH FROM BUS 216915 TO BUS 216928 CKT 1 /* CEDAR GROVE T1 CLOSE BRANCH FROM BUS 216928 TO BUS 216929 CKT Z /* CEDAR GROVE T10/20 END
PS_P1-2_S-2219	CONTINGENCY 'PS_P1-2_S-2219' /* METUCHEN TO DEANS DISCONNECT BUS 218358 /* PIERSON AVE S CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z /* PIERSON AVE DISCONNECT BUS 218351 /* MDWRD_S CLOSE LINE FROM BUS 218392 TO BUS 218393 CKT Z /* MDWRD_L1_L2 END
PS_P1-2_U-2273	CONTINGENCY 'PS_P1-2_U-2273' /* VFT TO WARRINICO DISCONNECT BUS 219050 /* VFT SECTION 1 DISCONNECT BUS 219049 /* WARRINACO 1 CLOSE LINE FROM BUS 218410 TO BUS 218411 CKT Z /* WARRINCO END

Contingency Name	Contingency Definition
PS_P1-2_S-2219_LT	CONTINGENCY 'PS_P1-2_S-2219_LT' /* METUCHEN TO DEANS DISCONNECT BUS 218358 /* PIERSON AVE S CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z/* PIERSON AVE DISCONNECT BUS 218351 /* MDWRD_S CLOSE LINE FROM BUS 218392 TO BUS 218393 CKT Z/* MDWRD_L1_L2 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO KILMER T4 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO LAFAYET T2 MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO LAFAYET T2 END
Base Case	
PS_P1-2_Z-2331_LT	CONTINGENCY 'PS_P1-2_Z-2331_LT' /* METUCHEN_BRUNSWICK DISCONNECT BUS 218352 /* MEADOWS ROAD R CLOSE LINE FROM BUS 218393 TO BUS 218392 CKT Z /* MEADOW ROAD DISCONNECT BUS 218357 /* PIERSON AVE R CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z/* PIERSON AVE MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO KILMER T4 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO LAFAYET T2 MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO LAFAYET T2 END

Contingency Name	Contingency Definition
PS_P2-3_LIND2_5-6	CONTINGENCY 'PS_P2-3_LIND2_5-6' DISCONNECT BUS 218354 /* MINUE STREET G CLOSE LINE FROM BUS 218396 TO BUS 218397 CKT Z /* MINUE STREET DISCONNECT BUS 218417 /* LINDEN2REAC DISCONNECT BUS 218422 /* LINDEN 2 COLLECTOR BUS DISCONNECT BUS 917011 /* Z2-002 LINDEN 2 UPRATE DISCONNECT BUS 218423 /*G21 DISCONNECT BUS 218424 /*G22 DISCONNECT BUS 218425 /*G12 DISCONNECT BUS 218426 /*2 ST END
PS_P7-1_R2218+T2325	CONTINGENCY 'PS_P7-1_R2218+T2325' DISCONNECT BUS 218353 /* MINUTE R CLOSE LINE FROM BUS 218396 TO BUS 218397 CKT Z /* MINUE STREET DISCONNECT BUS 218341 /* WOODBRIDGE T CLOSE LINE FROM BUS 218412 TO BUS 218413 CKT Z /* WOOD BRIDGE CLOSE LINE FROM BUS 218412 TO BUS 218414 CKT Z /* WOOD BRIDGE MOVE 8 MW LOAD FROM BUS 218412 TO BUS 218398 /* INTERSTATION TIE TRANSFER LOAD FROM WDBRDG TO NEWDOVR T1 MOVE 8 MW LOAD FROM BUS 218413 TO BUS 218411 /* INTERSTATION TIE TRANSFER LOAD FROM WDBRDG TO WARINICO T2 MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218410 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WARINICO T1 MOVE 8 MW LOAD FROM BUS 218414 TO BUS 218402 /* INTERSTATION TIE TRANSFER LOAD FROM WDBRDG TO PRSNAVS T2 END

10 Short Circuit Analysis - Primary POI

To be performed during the System Impact Study

11 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AF2-415 was evaluated as a 150.0 MW (Capacity 150.0 MW) injection at the **Bergen 230 kV substation** in the PSEG area. Project AF2-415 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-415 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

12 Generation Deliverability

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

None

12.1 Multiple Facility Contingency

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

None

12.2 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379192	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	106.41	109.32	DC	27.71
100379542	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	120.95	121.57	DC	14.53
100379544	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331	single	887.0	119.47	120.08	DC	14.53
100380135	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	126.62	129.74	DC	27.62
100380136	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	887.0	118.92	122.16	DC	28.73
100379183	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	119.87	121.0	DC	21.76
100379518	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	125.34	126.38	DC	24.57
100379519	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	122.14	123.19	DC	24.57
100379520	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	single	731.0	122.14	123.14	DC	19.46
100380143	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	129.63	130.85	DC	23.63

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100380148	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	123.84	126.96	DC	27.62
100380149	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	887.0	116.99	120.23	DC	28.73
100380238	218355	NEWDQVR_H	230.0	PSE&G	218320	FANWOOD_1	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	101.08	103.32	DC	19.79
100379162	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	122.98	124.11	DC	21.76
100379496	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	128.38	129.43	DC	24.57
100379497	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	127.95	129.0	DC	24.57
100379498	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	single	731.0	126.0	127.0	DC	19.46
100380130	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	132.01	133.23	DC	23.63
100379455	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	134.94	135.99	DC	24.57
100379456	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	130.91	131.96	DC	24.57
100379457	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	Base Case	single	731.0	129.98	130.98	DC	19.46
100380109	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	134.93	136.16	DC	23.63
100380224	218469	METUCHEN	230.0	PSE&G	218355	NEWDQVR_H	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	104.21	106.45	DC	19.79
100380225	218469	METUCHEN	230.0	PSE&G	218355	NEWDQVR_H	230.0	PSE&G	1	PS_P7-1_R2218+T2325	tower	885.0	101.15	103.05	DC	16.82

12.3 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379592	216950	ROSELAND	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_S-2297	operation	887.0	110.15	116.01	DC	51.98
100379609	217870	WILPIPE	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_Y-2277	operation	887.0	107.57	113.37	DC	51.47
100379616	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P1-2_U-2273	operation	950.0	98.66	100.95	DC	21.69
100379543	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	operation	887.0	121.03	121.78	DC	14.53
100379537	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	119.06	121.78	DC	24.09
100379523	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	operation	885.0	118.89	120.16	DC	24.57
100379526	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	operation	731.0	115.76	116.98	DC	19.46
100379551	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	116.28	119.0	DC	24.09
100379501	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	121.65	122.92	DC	24.57
100379504	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	operation	731.0	121.9	123.12	DC	19.46

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100379458	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	128.19	129.46	DC	24.57
100379463	218469	METUCHEN	230.0	PSE&G	218357	PRSSNAV_R	230.0	PSE&G	1	Base Case	operation	731.0	125.88	127.1	DC	19.46
100379640	218469	METUCHEN	230.0	PSE&G	218355	NEWDVOVR_H	230.0	PSE&G	1	PS_P1-2_R-2218	operation	885.0	100.03	101.93	DC	16.82

12.4 Flow Gate Details - Secondary POI

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

12.4.1 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
100379192	218300	LINDEN	PSE&G	217958	LINDEN_345	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	106.41	109.32	DC	27.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217104	FAIRLAWN_AB	-10.5021	Adder	-12.36
217212	AMBOY SO E	0.1757	50/50	0.1757
217213	AMBOY SO C	0.0192	50/50	0.0192
218418	LINDEN_G5	2.9374	50/50	2.9374
218419	LINDEN_G6	2.9374	50/50	2.9374
218423	LINDEN_G21	7.7697	50/50	7.7697
218424	LINDEN_G22	7.7697	50/50	7.7697
218425	LINDEN_G12	8.4760	50/50	8.4760
218426	LINDEN_2ST	13.4204	50/50	13.4204
218428	ETC SOLAR C	0.0036	50/50	0.0036
218429	ETC SOLAR E	0.0493	50/50	0.0493
218439	SUMMTASSOC E	0.0958	Adder	0.11
218545	WOODBRS1_C	0.0034	50/50	0.0034
218549	WOODBRS1_E	0.0321	50/50	0.0321
218554	WOODBRS2_C	0.0028	50/50	0.0028
218555	WOODBRS2_E	0.0269	50/50	0.0269
218558	WOODBRS3_C	0.0028	50/50	0.0028
218559	WOODBRS3_E	0.0268	50/50	0.0268
218636	METUCHSP1_C	0.0041	50/50	0.0041
218640	METUCHSP1_E	0.0386	50/50	0.0386
218655	METUCHSP2_C	0.0041	50/50	0.0041
218659	METUCHSP2_E	0.0386	50/50	0.0386
218662	MINUESP1_C	0.0017	50/50	0.0017
218663	MINUESP1_E	0.0159	50/50	0.0159
218664	MINUESP2_C	0.0020	50/50	0.0020
218665	MINUESP2_E	0.0195	50/50	0.0195
218729	CNTRALGAS1 E	0.1098	Adder	0.13
219001	SEWAREN7GT	4.9315	50/50	4.9315
219002	SEWAREN7ST	7.3973	50/50	7.3973
917001	Z2-000 C O1	70.6764	50/50	70.6764
917002	Z2-000 E O1	0.4213	50/50	0.4213
917011	Z2-002 C	2.5428	50/50	2.5428
917521	SEWARENG7E1	1.8255	50/50	1.8255
917522	SEWARENG7E2	1.8255	50/50	1.8255
920031	AA2-099 C	0.7751	50/50	0.7751
924431	AB2-092	-10.0513	Adder	-11.83
930901	AB1-139 C	0.0454	50/50	0.0454
930902	AB1-139 E	0.4319	50/50	0.4319
938281	AE1-041 C	0.0036	50/50	0.0036
938282	AE1-041 E	0.0948	50/50	0.0948
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	168.5040	50/50	168.5040

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
945803	AF1-245 BAT	35.2260	50/50	35.2260
961232	AF2-414 BAT	55.4190	50/50	55.4190
961242	AF2-415 BAT	27.7095	50/50	27.7095
961252	AF2-416 BAT	1.8473	50/50	1.8473
WEC	WEC	0.0756	Confirmed LTF	0.0756
LGEE	LGEE	0.1381	Confirmed LTF	0.1381
CPL	CPL	0.1819	Confirmed LTF	0.1819
CBM-W2	CBM-W2	2.0229	Confirmed LTF	2.0229
NY	NY	3.6310	Confirmed LTF	3.6310
CBM-W1	CBM-W1	2.9649	Confirmed LTF	2.9649
TVA	TVA	0.3514	Confirmed LTF	0.3514
O-066	O-066	124.1386	Confirmed LTF	124.1386
CBM-S2	CBM-S2	1.5490	Confirmed LTF	1.5490
CBM-S1	CBM-S1	2.1300	Confirmed LTF	2.1300
G-007	G-007	0.6781	Confirmed LTF	0.6781
MADISON	MADISON	0.0060	Confirmed LTF	0.0060
MEC	MEC	0.3845	Confirmed LTF	0.3845

12.4.2 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
100379542	218306	DEANS	PSE&G	218304	BRUNSWCK	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	120.95	121.57	DC	14.53

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217065	ECRRF_1	0.5623	80/20	0.5623
217081	WEATEXAS C	0.0115	80/20	0.0115
217104	FAIRLAWN_AB	6.5003	80/20	6.5003
217118	BERGEN 1 ST	3.5130	80/20	3.5130
217138	BERGEN_2CT1	2.9283	80/20	2.9283
217139	BERGEN_2CT2	2.9299	80/20	2.9299
217140	BERGEN_2ST	4.3314	80/20	4.3314
217201	HACKENSOLA C	0.0063	80/20	0.0063
217202	FBANKSOLAR C	0.0068	80/20	0.0068
217209	CENTRL HS C	0.0055	80/20	0.0055
217211	CAMDEN ST C	0.0031	80/20	0.0031
217213	AMBOY SO C	0.0269	80/20	0.0269
217217	BAYON2SP2_C	0.0006	80/20	0.0006
217250	BAYON2SP4_C	0.0005	80/20	0.0005
217275	DOREMUSP1_C	0.0005	80/20	0.0005
217279	DOREMUSP2_C	0.0005	80/20	0.0005
217281	DOREMUSP3_C	0.0005	80/20	0.0005
217283	DOREMUSP4_C	0.0005	80/20	0.0005
217323	ECRRF_2	0.5621	80/20	0.5621
217571	MARIONSP1_C	0.0020	80/20	0.0020
217575	MARIONSP2_C	0.0020	80/20	0.0020
217580	MARIONSP3_C	0.0020	80/20	0.0020
217584	WORNGESP1_C	0.0010	80/20	0.0010
217586	WORNGESP2_C	0.0010	80/20	0.0010
217606	WORNGESP3_C	0.0010	80/20	0.0010
217617	ERUTHSP1_C	0.0016	80/20	0.0016
217619	ERUTHSP2_C	0.0016	80/20	0.0016
217637	FAIRLASP1_C	0.0029	80/20	0.0029
217641	FAIRLASP2_C	0.0029	80/20	0.0029
217675	NORTHASP1_C	0.0024	80/20	0.0024
217688	NORTHASP2_C	0.0024	80/20	0.0024
217690	SPRINGSP1_C	0.0016	80/20	0.0016
217700	SPRINGSP2_C	0.0017	80/20	0.0017
217915	BERGEN_11	1.9948	80/20	1.9948
217916	BERGEN_12	1.9948	80/20	1.9948
217917	BERGEN_13	1.9948	80/20	1.9948
217918	BERGEN_14	1.9948	80/20	1.9948
218092	PRIMEENG_G	1.1765	80/20	1.1765
218318	LINDEN_26	0.8855	80/20	0.8855
218344	TOSCO_G6	0.5175	80/20	0.5175
218376	ALDENE_AB	0.1486	80/20	0.1486

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218418	LINDEN_G5	1.6597	80/20	1.6597
218419	LINDEN_G6	1.6597	80/20	1.6597
218423	LINDEN_G21	4.3902	80/20	4.3902
218424	LINDEN_G22	4.3902	80/20	4.3902
218425	LINDEN_G12	4.7893	80/20	4.7893
218426	LINDEN_2ST	7.5830	80/20	7.5830
218428	ETC SOLAR C	0.0062	80/20	0.0062
218435	LINDEN_1GT	4.2618	80/20	4.2618
218436	LINDEN_G11	7.3160	80/20	7.3160
218440	SUMMTASSOC C	0.0284	80/20	0.0284
218449	ALDENESP1_C	0.0022	80/20	0.0022
218508	ALDENESP2_C	0.0023	80/20	0.0023
218545	WOODBRS1_C	0.0048	80/20	0.0048
218554	WOODBRS2_C	0.0040	80/20	0.0040
218558	WOODBRS3_C	0.0040	80/20	0.0040
218636	METUCHSP1_C	0.0068	80/20	0.0068
218655	METUCHSP2_C	0.0068	80/20	0.0068
218662	MINUESP1_C	0.0014	80/20	0.0014
218664	MINUESP2_C	0.0014	80/20	0.0014
218666	NWKS WTSP1_C	0.0034	80/20	0.0034
218674	WARINASP1_C	0.0043	80/20	0.0043
218676	WARINASP2_C	0.0043	80/20	0.0043
218726	LINSOLAR C	0.0207	80/20	0.0207
218728	CNTRALGAS1 C	0.0440	80/20	0.0440
218730	CNTRALGAS2 C	0.0439	80/20	0.0439
219001	SEWAREN7GT	6.0167	80/20	6.0167
219002	SEWAREN7ST	9.0251	80/20	9.0251
219035	LINDEN_G8	1.4443	80/20	1.4443
219036	LINDEN_G7	1.4443	80/20	1.4443
913101	Y1-026	4.1363	80/20	4.1363
917001	Z2-000 C O1	117.9886	80/20	117.9886
917011	Z2-002 C	1.4368	80/20	1.4368
920031	AA2-099 C	0.9457	80/20	0.9457
924431	AB2-092	5.2244	80/20	5.2244
930901	AB1-139 C	0.0758	80/20	0.0758
938231	AE1-037 FTIR (Withdrawn : 01/24/2020)	113.8080	Merchant Transmission	113.8080
938281	AE1-041 C	0.0061	80/20	0.0061
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	205.5840	80/20	205.5840
943841	AF1-052 C	9.2614	Adder	10.9
945801	AF1-245 C O1	6.5124	Adder	7.66
961231	AF2-414 O2	29.0520	80/20	29.0520
961241	AF2-415 O2	6.5440	Adder	14.53
961251	AF2-416	0.4363	Adder	0.97
NEWTON	NEWTON	0.2106	Confirmed LTF	0.2106
FARMERCITY	FARMERCITY	0.0111	Confirmed LTF	0.0111
VFT	VFT	95.7051	Confirmed LTF	95.7051
CALDERWOOD	CALDERWOOD	0.1078	Confirmed LTF	0.1078
PRAIRIE	PRAIRIE	0.5140	Confirmed LTF	0.5140
CHEOAH	CHEOAH	0.1091	Confirmed LTF	0.1091
EDWARDS	EDWARDS	0.0676	Confirmed LTF	0.0676
TILTON	TILTON	0.1216	Confirmed LTF	0.1216

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.1065	Confirmed LTF	0.1065
BLUEG	BLUEG	0.3385	Confirmed LTF	0.3385
TRIMBLE	TRIMBLE	0.1085	Confirmed LTF	0.1085
CATAWBA	CATAWBA	0.0822	Confirmed LTF	0.0822

12.4.3 Index 3

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
100380135	218311	SEWAREN	PSE&G	218353	MINUEST_R	PSE&G	1	PS_P7-1_H2286+W2249_L T	tower	887.0	126.62	129.74	DC	27.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217104	FAIRLAWN_AB	-10.5010	Adder	-12.35
217196	RE CRAN E	0.3583	50/50	0.3583
217197	RE CRAN C	0.0379	50/50	0.0379
217198	V3-058 E	0.2658	50/50	0.2658
217199	V3-059 E	0.2658	50/50	0.2658
217212	AMBOY SO E	0.5229	50/50	0.5229
217213	AMBOY SO C	0.0570	50/50	0.0570
218359	V2-009 E3	0.4120	50/50	0.4120
218379	BRUNSWCK_AB	0.2063	50/50	0.2063
218428	ETC SOLAR C	0.0112	50/50	0.0112
218429	ETC SOLAR E	0.1538	50/50	0.1538
218437	BLK ROCK E	0.1624	50/50	0.1624
218438	BLK ROCK C	0.0179	50/50	0.0179
218439	SUMMTASSOC E	0.3225	50/50	0.3225
218440	SUMMTASSOC C	0.0341	50/50	0.0341
218545	WOODBRS1_C	0.0101	50/50	0.0101
218549	WOODBRS1_E	0.0955	50/50	0.0955
218554	WOODBRS2_C	0.0085	50/50	0.0085
218555	WOODBRS2_E	0.0800	50/50	0.0800
218558	WOODBRS3_C	0.0084	50/50	0.0084
218559	WOODBRS3_E	0.0797	50/50	0.0797
218565	BENNETSP1_C	0.0022	50/50	0.0022
218573	BENNETSP1_E	0.0208	50/50	0.0208
218584	BRUNSWSP1_C	0.0039	50/50	0.0039
218585	BRUNSWSP1_E	0.0373	50/50	0.0373
218591	BRUNSWSP2_C	0.0039	50/50	0.0039
218608	BRUNSWSP2_E	0.0373	50/50	0.0373
218612	MIDDLE2SP1_C	0.0016	50/50	0.0016
218625	MIDDLE2SP1_E	0.0150	50/50	0.0150
218626	MIDDLE2SP2_C	0.0016	50/50	0.0016
218627	MIDDLE2SP2_E	0.0150	50/50	0.0150
218636	METUCHSP1_C	0.0128	50/50	0.0128
218640	METUCHSP1_E	0.1210	50/50	0.1210
218655	METUCHSP2_C	0.0128	50/50	0.0128
218659	METUCHSP2_E	0.1210	50/50	0.1210
218672	KENILWRTH E	-1.5341	Adder	-1.8
218728	CNTRALGAS1 C	0.0529	50/50	0.0529
218729	CNTRALGAS1 E	0.3699	50/50	0.3699
218730	CNTRALGAS2 C	0.0502	50/50	0.0502
218731	CNTRALGAS2 E	0.3514	50/50	0.3514
219001	SEWAREN7GT	14.1167	50/50	14.1167

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219002	SEWAREN7ST	21.1751	50/50	21.1751
219612	MATRIX C	0.0215	50/50	0.0215
219613	MATRIX E	0.2043	50/50	0.2043
219878	V2-009 E4	0.2478	50/50	0.2478
219879	V2-009 C4	0.0261	50/50	0.0261
219880	V2-009 C3	0.0437	50/50	0.0437
219881	V2-009 E2	0.3560	50/50	0.3560
219882	V2-009 C2	0.0377	50/50	0.0377
219883	V2-009 E1	0.1777	50/50	0.1777
219884	V2-009 C1	0.0189	50/50	0.0189
917001	Z2-000 C O1	221.8058	50/50	221.8058
917002	Z2-000 E O1	1.3222	50/50	1.3222
917521	SEWARENG7E1	5.2255	50/50	5.2255
917522	SEWARENG7E2	5.2255	50/50	5.2255
920031	AA2-099 C	2.2187	50/50	2.2187
924131	AB2-057 C	0.0871	50/50	0.0871
924132	AB2-057 E	0.8240	50/50	0.8240
924431	AB2-092	-8.6298	Adder	-10.15
930092	AB1-021 E	-0.2077	Adder	-0.24
930901	AB1-139 C	0.1425	50/50	0.1425
930902	AB1-139 E	1.3553	50/50	1.3553
933333	AC2-145 BAT (Suspended)	0.0209	50/50	0.0209
937513	AD2-210 BAT (Suspended)	0.2318	50/50	0.2318
938281	AE1-041 C	0.0114	50/50	0.0114
938282	AE1-041 E	0.2975	50/50	0.2975
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	482.3520	50/50	482.3520
945803	AF1-245 BAT	36.2660	50/50	36.2660
946603	AF1-324 BAT	2.1448	50/50	2.1448
961232	AF2-414 BAT	55.2300	50/50	55.2300
961242	AF2-415 BAT	27.6150	50/50	27.6150
961252	AF2-416 BAT	1.8410	50/50	1.8410
WEC	WEC	0.1487	Confirmed LTF	0.1487
LGEE	LGEE	0.2716	Confirmed LTF	0.2716
CPL	CPL	0.3599	Confirmed LTF	0.3599
CBM-W2	CBM-W2	3.9803	Confirmed LTF	3.9803
NY	NY	5.4609	Confirmed LTF	5.4609
CBM-W1	CBM-W1	5.8422	Confirmed LTF	5.8422
TVA	TVA	0.6930	Confirmed LTF	0.6930
O-066	O-066	123.7152	Confirmed LTF	123.7152
CBM-S2	CBM-S2	3.0576	Confirmed LTF	3.0576
CBM-S1	CBM-S1	4.1918	Confirmed LTF	4.1918
G-007	G-007	1.3447	Confirmed LTF	1.3447
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.7580	Confirmed LTF	0.7580

12.4.4 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 IMPACT
100380143	218352	MDWRD_R	PSE&G	218304	BRUNSWC K	PSE&G	1	PS_P7-1_D22204+S2219_L T	tower	885.0	129.63	130.85	DC	23.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217082	WEATEXAS E	0.1436	Adder	0.17
217104	FAIRLAWN_AB	8.9753	Adder	10.56
217203	FBANKSOLAR E	0.0854	Adder	0.1
217205	WCALDSOLAR E	0.1988	Adder	0.23
217207	PARK ELE E	0.0357	Adder	0.04
217210	CAMDEN ST E	0.0394	Adder	0.05
217212	AMBOY SO E	0.5525	50/50	0.5525
217213	AMBOY SO C	0.0603	50/50	0.0603
217214	CENTRL HS E	0.0504	Adder	0.06
217216	BARNGR HS E	0.0450	Adder	0.05
217218	BAYON2SP2_E	0.0074	Adder	0.01
217249	HACKENSOLA E	0.0830	Adder	0.1
217254	BAYON2SP4_E	0.0055	Adder	0.01
217255	BAYON2SP3_E	0.0093	Adder	0.01
217256	COOKPTSP1_E	0.0050	Adder	0.01
217270	COOKPTSP2_E	0.0053	Adder	0.01
217272	COOKPTSP3_E	0.0050	Adder	0.01
217274	COOKPTSP4_E (Deactivation : 01/06/2015)	0.0042	Adder	0.0
217276	DOREMUSP1_E	0.0060	Adder	0.01
217280	DOREMUSP2_E	0.0064	Adder	0.01
217282	DOREMUSP3_E	0.0064	Adder	0.01
217284	DOREMUSP4_E	0.0060	Adder	0.01
217289	HOBK1SP1_E	0.0120	Adder	0.01
217291	HOBK1SP2_E	0.0120	Adder	0.01
217295	HOBK1SP3_E	0.0120	Adder	0.01
217297	HOBK1SP4_E	0.0120	Adder	0.01
217305	HILLDASP1_E	0.0020	Adder	0.0
217318	HILLDASP2_E	0.0020	Adder	0.0
217335	HILLDASP3_E	0.0020	Adder	0.0
217337	HILLDASP4_E	0.0020	Adder	0.0
217341	HOBK2SP1_E	0.0012	Adder	0.0
217343	HOBK2SP2_E	0.0012	Adder	0.0
217345	HOBK2SP3_E	0.0012	Adder	0.0
217350	HOBK2SP4_E	0.0012	Adder	0.0
217360	JACKPSSP1_E	0.0060	Adder	0.01
217364	JACKPSSP2_E	0.0060	Adder	0.01
217387	JACKPSSP3_E	0.0060	Adder	0.01
217389	JACKPSSP4_E	0.0060	Adder	0.01
217393	LEONIASP1_E	0.0152	Adder	0.02
217397	LEONIASP2_E	0.0152	Adder	0.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217399	LEONIASP3_E	0.0152	Adder	0.02
217406	LEONIASP4_E	0.0152	Adder	0.02
217410	MAYWOOSP1_E	0.0102	Adder	0.01
217418	MAYWOOSP2_E	0.0102	Adder	0.01
217420	MAYWOOSP3_E	0.0077	Adder	0.01
217425	MAYWOOSP4_E	0.0102	Adder	0.01
217449	NEWMILSP1_E	0.0080	Adder	0.01
217457	NEWMILSP2_E	0.0080	Adder	0.01
217460	NEWMILSP3_E	0.0080	Adder	0.01
217480	NEWMILSP4_E	0.0080	Adder	0.01
217487	SADDLESP1_E	0.0070	Adder	0.01
217489	SADDLESP2_E	0.0070	Adder	0.01
217517	SADDLESP3_E	0.0070	Adder	0.01
217519	SADDLESP4_E	0.0070	Adder	0.01
217530	WALDWKSP1_E	0.0019	Adder	0.0
217541	WALDWKSP2_E	0.0020	Adder	0.0
217543	WALDWKSP3_E	0.0004	Adder	0.0
217545	WALDWKSP4_E	0.0004	Adder	0.0
217547	WCALDWSP1_E	0.0029	Adder	0.0
217550	WCALDWSP2_E	0.0029	Adder	0.0
217560	WCALDWSP3_E	0.0029	Adder	0.0
217563	WCALDWSP4_E	0.0029	Adder	0.0
217565	ATHENISP1_E	0.0209	Adder	0.02
217567	ATHENISP2_E	0.0209	Adder	0.02
217569	ATHENISP3_E	0.0209	Adder	0.02
217572	MARIONSP1_E	0.0252	Adder	0.03
217576	MARIONSP2_E	0.0252	Adder	0.03
217583	MARIONSP3_E	0.0252	Adder	0.03
217585	WORNGESP1_E	0.0119	Adder	0.01
217600	WORNGESP2_E	0.0119	Adder	0.01
217610	WORNGESP3_E	0.0119	Adder	0.01
217612	CEDARGSP1_E	0.0099	Adder	0.01
217614	CEDARGSP2_E	0.0099	Adder	0.01
217618	ERUTHSP1_E	0.0211	Adder	0.02
217630	ERUTHSP2_E	0.0211	Adder	0.02
217640	FAIRLASP1_E	0.0374	Adder	0.04
217642	FAIRLASP2_E	0.0374	Adder	0.04
217660	HINCHMSP1_E	0.0089	Adder	0.01
217670	HINCHMSP2_E	0.0089	Adder	0.01
217680	NORTHASP1_E	0.0304	Adder	0.04
217689	NORTHASP2_E	0.0304	Adder	0.04
217691	SPRINGSP1_E	0.0178	Adder	0.02
217710	SPRINGSP2_E	0.0179	Adder	0.02
217721	BELLEVSP1_E	0.0357	Adder	0.04
218344	TOSCO_G6	0.7605	50/50	0.7605
218418	LINDEN_G5	2.4922	50/50	2.4922
218419	LINDEN_G6	2.4922	50/50	2.4922
218423	LINDEN_G21	6.5922	50/50	6.5922
218424	LINDEN_G22	6.5922	50/50	6.5922
218425	LINDEN_G12	7.1915	50/50	7.1915
218426	LINDEN_2ST	11.3866	50/50	11.3866
218428	ETC SOLAR C	0.0146	50/50	0.0146

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218429	ETC SOLAR E	0.2007	50/50	0.2007
218439	SUMMTASSOC E	0.6619	50/50	0.6619
218440	SUMMTASSOC C	0.0700	50/50	0.0700
218450	ALDENESP1_E	0.0233	Adder	0.03
218513	ALDENESP2_E	0.0234	Adder	0.03
218545	WOODBRS1_C	0.0107	50/50	0.0107
218549	WOODBRS1_E	0.1010	50/50	0.1010
218554	WOODBRS2_C	0.0089	50/50	0.0089
218555	WOODBRS2_E	0.0841	50/50	0.0841
218558	WOODBRS3_C	0.0089	50/50	0.0089
218559	WOODBRS3_E	0.0843	50/50	0.0843
218636	METUCHSP1_C	0.0158	50/50	0.0158
218640	METUCHSP1_E	0.1491	50/50	0.1491
218655	METUCHSP2_C	0.0158	50/50	0.0158
218659	METUCHSP2_E	0.1491	50/50	0.1491
218662	MINUESP1_C	0.0025	50/50	0.0025
218663	MINUESP1_E	0.0243	50/50	0.0243
218664	MINUESP2_C	0.0017	50/50	0.0017
218665	MINUESP2_E	0.0167	50/50	0.0167
218667	NWKS WTSP1_E	0.0425	Adder	0.05
218672	KENILWRTH E	1.1470	Adder	1.35
218675	WARINASP1_E	0.0486	Adder	0.06
218677	WARINASP2_E	0.0484	Adder	0.06
218727	LINSOLAR E	0.2539	Adder	0.3
218728	CNTRALGAS1 C	0.1085	50/50	0.1085
218729	CNTRALGAS1 E	0.7591	50/50	0.7591
218730	CNTRALGAS2 C	0.1083	50/50	0.1083
218731	CNTRALGAS2 E	0.7579	50/50	0.7579
219001	SEWAREN7GT	13.0122	50/50	13.0122
219002	SEWAREN7ST	19.5183	50/50	19.5183
219679	NRGCENTER E	-0.2903	Adder	-0.34
219881	V2-009 E2	-0.6569	Adder	-0.77
219883	V2-009 E1	-0.3278	Adder	-0.39
913101	Y1-026	6.0745	50/50	6.0745
917001	Z2-000 C O1	273.2849	50/50	273.2849
917002	Z2-000 E O1	1.6291	50/50	1.6291
917011	Z2-002 C	2.1575	50/50	2.1575
917521	SEWARENG7E1	4.8166	50/50	4.8166
917522	SEWARENG7E2	4.8166	50/50	4.8166
919712	AA2-058 E	-0.0688	Adder	-0.08
919802	AA2-066 E	-0.2903	Adder	-0.34
920031	AA2-099 C	2.0451	50/50	2.0451
924431	AB2-092	7.1104	Adder	8.37
930092	AB1-021 E	0.1989	Adder	0.23
930901	AB1-139 C	0.1756	50/50	0.1756
930902	AB1-139 E	1.6698	50/50	1.6698
934302	AD1-054 E	0.2011	Adder	0.24
936193	AD2-025 BAT	0.3222	Merchant Transmission	0.3222
938281	AE1-041 C	0.0141	50/50	0.0141
938282	AE1-041 E	0.3666	50/50	0.3666
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	444.6120	50/50	444.6120
943841	AF1-052 C	15.1012	Adder	17.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943842	AF1-052 E	0.0529	Adder	0.06
945723	AF1-237 BAT	28.9500	Merchant Transmission	28.9500
945801	AF1-245 C O1	10.6107	Adder	12.48
945802	AF1-245 E O1	15.9161	Adder	18.72
961231	AF2-414 O2	21.2888	Adder	47.26
961241	AF2-415 O2	10.6444	Adder	23.63
961251	AF2-416	0.7096	Adder	1.58
NEWTON	NEWTON	0.5415	Confirmed LTF	0.5415
FARMERCITY	FARMERCITY	0.0284	Confirmed LTF	0.0284
G-007A	G-007A	0.2062	Confirmed LTF	0.2062
VFT	VFT	139.4296	Confirmed LTF	139.4296
CALDERWOOD	CALDERWOOD	0.2649	Confirmed LTF	0.2649
PRAIRIE	PRAIRIE	1.3122	Confirmed LTF	1.3122
CHEOAH	CHEOAH	0.2673	Confirmed LTF	0.2673
EDWARDS	EDWARDS	0.1750	Confirmed LTF	0.1750
TILTON	TILTON	0.3150	Confirmed LTF	0.3150
GIBSON	GIBSON	0.2746	Confirmed LTF	0.2746
BLUEG	BLUEG	0.8732	Confirmed LTF	0.8732
TRIMBLE	TRIMBLE	0.2799	Confirmed LTF	0.2799
CATAWBA	CATAWBA	0.1953	Confirmed LTF	0.1953

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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
100380148	218353	MINUEST_R	PSE&G	218300	LINDEN	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	123.84	126.96	DC	27.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217104	FAIRLAWN_AB	-10.5010	Adder	-12.35
217196	RE CRAN E	0.3583	50/50	0.3583
217197	RE CRAN C	0.0379	50/50	0.0379
217198	V3-058 E	0.2658	50/50	0.2658
217199	V3-059 E	0.2658	50/50	0.2658
217212	AMBOY SO E	0.5229	50/50	0.5229
217213	AMBOY SO C	0.0570	50/50	0.0570
218359	V2-009 E3	0.4120	50/50	0.4120
218379	BRUNSWCK_AB	0.2063	50/50	0.2063
218428	ETC SOLAR C	0.0112	50/50	0.0112
218429	ETC SOLAR E	0.1538	50/50	0.1538
218437	BLK ROCK E	0.1624	50/50	0.1624
218438	BLK ROCK C	0.0179	50/50	0.0179
218439	SUMMTASSOC E	0.3225	50/50	0.3225
218440	SUMMTASSOC C	0.0341	50/50	0.0341
218545	WOODBRS1_C	0.0101	50/50	0.0101
218549	WOODBRS1_E	0.0955	50/50	0.0955
218554	WOODBRS2_C	0.0085	50/50	0.0085
218555	WOODBRS2_E	0.0800	50/50	0.0800
218558	WOODBRS3_C	0.0084	50/50	0.0084
218559	WOODBRS3_E	0.0797	50/50	0.0797
218565	BENNETSP1_C	0.0022	50/50	0.0022
218573	BENNETSP1_E	0.0208	50/50	0.0208
218584	BRUNSWSP1_C	0.0039	50/50	0.0039
218585	BRUNSWSP1_E	0.0373	50/50	0.0373
218591	BRUNSWSP2_C	0.0039	50/50	0.0039
218608	BRUNSWSP2_E	0.0373	50/50	0.0373
218612	MIDDL2SP1_C	0.0016	50/50	0.0016
218625	MIDDL2SP1_E	0.0150	50/50	0.0150
218626	MIDDL2SP2_C	0.0016	50/50	0.0016
218627	MIDDL2SP2_E	0.0150	50/50	0.0150
218636	METUCHSP1_C	0.0128	50/50	0.0128
218640	METUCHSP1_E	0.1210	50/50	0.1210
218655	METUCHSP2_C	0.0128	50/50	0.0128
218659	METUCHSP2_E	0.1210	50/50	0.1210
218662	MINUESP1_C	0.0043	50/50	0.0043
218663	MINUESP1_E	0.0415	50/50	0.0415
218672	KENILWRTH E	-1.5341	Adder	-1.8
218728	CNTRALGAS1 C	0.0529	50/50	0.0529
218729	CNTRALGAS1 E	0.3699	50/50	0.3699
218730	CNTRALGAS2 C	0.0502	50/50	0.0502
218731	CNTRALGAS2 E	0.3514	50/50	0.3514

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
219001	SEWAREN7GT	14.1167	50/50	14.1167
219002	SEWAREN7ST	21.1751	50/50	21.1751
219612	MATRIX C	0.0215	50/50	0.0215
219613	MATRIX E	0.2043	50/50	0.2043
219878	V2-009 E4	0.2478	50/50	0.2478
219879	V2-009 C4	0.0261	50/50	0.0261
219880	V2-009 C3	0.0437	50/50	0.0437
219881	V2-009 E2	0.3560	50/50	0.3560
219882	V2-009 C2	0.0377	50/50	0.0377
219883	V2-009 E1	0.1777	50/50	0.1777
219884	V2-009 C1	0.0189	50/50	0.0189
917001	Z2-000 C O1	221.8058	50/50	221.8058
917002	Z2-000 E O1	1.3222	50/50	1.3222
917521	SEWARENG7E1	5.2255	50/50	5.2255
917522	SEWARENG7E2	5.2255	50/50	5.2255
920031	AA2-099 C	2.2187	50/50	2.2187
924131	AB2-057 C	0.0871	50/50	0.0871
924132	AB2-057 E	0.8240	50/50	0.8240
924431	AB2-092	-8.6298	Adder	-10.15
930092	AB1-021 E	-0.2077	Adder	-0.24
930901	AB1-139 C	0.1425	50/50	0.1425
930902	AB1-139 E	1.3553	50/50	1.3553
933333	AC2-145 BAT (Suspended)	0.0209	50/50	0.0209
937513	AD2-210 BAT (Suspended)	0.2318	50/50	0.2318
938281	AE1-041 C	0.0114	50/50	0.0114
938282	AE1-041 E	0.2975	50/50	0.2975
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	482.3520	50/50	482.3520
945803	AF1-245 BAT	36.2660	50/50	36.2660
946603	AF1-324 BAT	2.1448	50/50	2.1448
961232	AF2-414 BAT	55.2300	50/50	55.2300
961242	AF2-415 BAT	27.6150	50/50	27.6150
961252	AF2-416 BAT	1.8410	50/50	1.8410
WEC	WEC	0.1487	Confirmed LTF	0.1487
LGEE	LGEE	0.2716	Confirmed LTF	0.2716
CPL	CPL	0.3599	Confirmed LTF	0.3599
CBM-W2	CBM-W2	3.9803	Confirmed LTF	3.9803
NY	NY	5.4609	Confirmed LTF	5.4609
CBM-W1	CBM-W1	5.8422	Confirmed LTF	5.8422
TVA	TVA	0.6930	Confirmed LTF	0.6930
O-066	O-066	123.7152	Confirmed LTF	123.7152
CBM-S2	CBM-S2	3.0576	Confirmed LTF	3.0576
CBM-S1	CBM-S1	4.1918	Confirmed LTF	4.1918
G-007	G-007	1.3447	Confirmed LTF	1.3447
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.7580	Confirmed LTF	0.7580

12.4.6 Index 6

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
100380238	218355	NEWDQVR_H	PSE&G	218320	FANWOOD_1	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	101.08	103.32	DC	19.79

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206638	28PEAPACK	-0.2814	Adder	-0.33
206679	28M&M S721	-0.7152	Adder	-0.84
207411	AA2-060 BAT	0.5602	Merchant Transmission	0.5602
207414	AA2-061 BAT	0.7469	Merchant Transmission	0.7469
217104	FAIRLAWN_AB	-7.5026	Adder	-8.83
217196	RE CRAN E	0.3354	50/50	0.3354
217197	RE CRAN C	0.0355	50/50	0.0355
217198	V3-058 E	0.2490	50/50	0.2490
217199	V3-059 E	0.2490	50/50	0.2490
217212	AMBOY SO E	0.4134	50/50	0.4134
217213	AMBOY SO C	0.0451	50/50	0.0451
218359	V2-009 E3	0.3275	Adder	0.39
218379	BRUNSWCK_AB	0.1933	50/50	0.1933
218428	ETC SOLAR C	0.0099	50/50	0.0099
218429	ETC SOLAR E	0.1356	50/50	0.1356
218437	BLK ROCK E	0.1520	50/50	0.1520
218438	BLK ROCK C	0.0168	50/50	0.0168
218439	SUMMTASSOC E	0.2901	50/50	0.2901
218440	SUMMTASSOC C	0.0307	50/50	0.0307
218545	WOODBRS1_C	0.0080	50/50	0.0080
218549	WOODBRS1_E	0.0755	50/50	0.0755
218554	WOODBRS2_C	0.0067	50/50	0.0067
218555	WOODBRS2_E	0.0630	50/50	0.0630
218558	WOODBRS3_C	0.0067	50/50	0.0067
218559	WOODBRS3_E	0.0630	50/50	0.0630
218573	BENNETSP1_E	0.0164	Adder	0.02
218578	BENNETSP2_E	0.0159	Adder	0.02
218584	BRUNSWSP1_C	0.0037	50/50	0.0037
218585	BRUNSWSP1_E	0.0350	50/50	0.0350
218591	BRUNSWSP2_C	0.0037	50/50	0.0037
218608	BRUNSWSP2_E	0.0350	50/50	0.0350
218612	MIDDL2SP1_C	0.0015	50/50	0.0015
218625	MIDDL2SP1_E	0.0141	50/50	0.0141
218626	MIDDL2SP2_C	0.0015	50/50	0.0015
218627	MIDDL2SP2_E	0.0141	50/50	0.0141
218636	METUCHSP1_C	0.0113	50/50	0.0113
218640	METUCHSP1_E	0.1065	50/50	0.1065
218655	METUCHSP2_C	0.0113	50/50	0.0113
218659	METUCHSP2_E	0.1065	50/50	0.1065
218672	KENILWRTH E	-0.7094	Adder	-0.83
218728	CNTRALGAS1 C	0.0475	50/50	0.0475

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218729	CNTRALGAS1 E	0.3327	50/50	0.3327
218730	CNTRALGAS2 C	0.0448	50/50	0.0448
218731	CNTRALGAS2 E	0.3138	50/50	0.3138
219001	SEWAREN7GT	10.1882	50/50	10.1882
219002	SEWAREN7ST	15.2823	50/50	15.2823
219612	MATRIX C	0.0201	50/50	0.0201
219613	MATRIX E	0.1912	50/50	0.1912
219878	V2-009 E4	0.1970	Adder	0.23
219881	V2-009 E2	0.3332	50/50	0.3332
219882	V2-009 C2	0.0353	50/50	0.0353
219883	V2-009 E1	0.1663	50/50	0.1663
219884	V2-009 C1	0.0177	50/50	0.0177
917001	Z2-000 C O1	195.2543	50/50	195.2543
917002	Z2-000 E O1	1.1640	50/50	1.1640
917521	SEWARENG7E1	3.7713	50/50	3.7713
917522	SEWARENG7E2	3.7713	50/50	3.7713
920031	AA2-099 C	1.6013	50/50	1.6013
924131	AB2-057 C	0.0816	50/50	0.0816
924132	AB2-057 E	0.7718	50/50	0.7718
924431	AB2-092	-5.4854	Adder	-6.45
930092	AB1-021 E	-0.2022	Adder	-0.24
930901	AB1-139 C	0.1255	50/50	0.1255
930902	AB1-139 E	1.1931	50/50	1.1931
933332	AC2-145 E (Suspended)	-0.0184	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0216	50/50	0.0216
937513	AD2-210 BAT (Suspended)	0.2391	50/50	0.2391
938281	AE1-041 C	0.0100	50/50	0.0100
938282	AE1-041 E	0.2619	50/50	0.2619
938413	AE1-060 BAT	1.6909	Merchant Transmission	1.6909
938601	AE1-081 C	-0.0766	Adder	-0.09
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	348.1200	50/50	348.1200
942253	AE2-237 BAT	10.1532	Merchant Transmission	10.1532
943483	AF1-019 BAT	1.8610	Merchant Transmission	1.8610
945803	AF1-245 BAT	26.4520	50/50	26.4520
946603	AF1-324 BAT	2.2166	50/50	2.2166
946613	AF1-325 BAT	1.8844	Merchant Transmission	1.8844
946633	AF1-327 BAT	1.5924	Merchant Transmission	1.5924
946643	AF1-328 BAT	1.5858	Merchant Transmission	1.5858
961232	AF2-414 BAT	39.5760	50/50	39.5760
961242	AF2-415 BAT	19.7880	50/50	19.7880
961252	AF2-416 BAT	1.3192	50/50	1.3192
961512	AF1-442 NFTW	4.2232	Merchant Transmission	4.2232
961522	AF1-443 NFTW	4.2245	Merchant Transmission	4.2245
WEC	WEC	0.0687	Confirmed LTF	0.0687
LGEE	LGEE	0.1267	Confirmed LTF	0.1267
CPL	CPL	0.1925	Confirmed LTF	0.1925
CBM-W2	CBM-W2	1.9001	Confirmed LTF	1.9001
NY	NY	3.3064	Confirmed LTF	3.3064
CBM-W1	CBM-W1	2.6646	Confirmed LTF	2.6646
TVA	TVA	0.3374	Confirmed LTF	0.3374
O-066	O-066	88.6502	Confirmed LTF	88.6502

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	1.5895	Confirmed LTF	1.5895
CBM-S1	CBM-S1	2.0278	Confirmed LTF	2.0278
G-007	G-007	1.6182	Confirmed LTF	1.6182
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.3543	Confirmed LTF	0.3543

12.4.7 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
100380130	218357	PRSNVAV_R	PSE&G	218352	MDWRD_R	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	132.01	133.23	DC	23.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217082	WEATEXAS E	0.1436	Adder	0.17
217104	FAIRLAWN_AB	8.9765	Adder	10.56
217203	FBANKSOLAR E	0.0854	Adder	0.1
217205	WCALDSOLAR E	0.1988	Adder	0.23
217207	PARK ELE E	0.0357	Adder	0.04
217210	CAMDEN ST E	0.0394	Adder	0.05
217212	AMBOY SO E	0.5525	50/50	0.5525
217213	AMBOY SO C	0.0603	50/50	0.0603
217214	CENTRL HS E	0.0504	Adder	0.06
217216	BARNGR HS E	0.0450	Adder	0.05
217218	BAYON2SP2_E	0.0074	Adder	0.01
217249	HACKENSOLA E	0.0830	Adder	0.1
217254	BAYON2SP4_E	0.0055	Adder	0.01
217255	BAYON2SP3_E	0.0093	Adder	0.01
217256	COOKPTSP1_E	0.0050	Adder	0.01
217270	COOKPTSP2_E	0.0053	Adder	0.01
217272	COOKPTSP3_E	0.0050	Adder	0.01
217274	COOKPTSP4_E (Deactivation : 01/06/2015)	0.0042	Adder	0.0
217276	DOREMUSP1_E	0.0060	Adder	0.01
217280	DOREMUSP2_E	0.0064	Adder	0.01
217282	DOREMUSP3_E	0.0064	Adder	0.01
217284	DOREMUSP4_E	0.0060	Adder	0.01
217289	HOBK1SP1_E	0.0120	Adder	0.01
217291	HOBK1SP2_E	0.0120	Adder	0.01
217295	HOBK1SP3_E	0.0120	Adder	0.01
217297	HOBK1SP4_E	0.0120	Adder	0.01
217305	HILLDASP1_E	0.0020	Adder	0.0
217318	HILLDASP2_E	0.0020	Adder	0.0
217335	HILLDASP3_E	0.0020	Adder	0.0
217337	HILLDASP4_E	0.0020	Adder	0.0
217341	HOBK2SP1_E	0.0012	Adder	0.0
217343	HOBK2SP2_E	0.0012	Adder	0.0
217345	HOBK2SP3_E	0.0012	Adder	0.0
217350	HOBK2SP4_E	0.0012	Adder	0.0
217360	JACKPSSP1_E	0.0060	Adder	0.01
217364	JACKPSSP2_E	0.0060	Adder	0.01
217387	JACKPSSP3_E	0.0060	Adder	0.01
217389	JACKPSSP4_E	0.0060	Adder	0.01
217393	LEONIASP1_E	0.0152	Adder	0.02
217397	LEONIASP2_E	0.0152	Adder	0.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217399	LEONIASP3_E	0.0152	Adder	0.02
217406	LEONIASP4_E	0.0152	Adder	0.02
217410	MAYWOOSP1_E	0.0102	Adder	0.01
217418	MAYWOOSP2_E	0.0102	Adder	0.01
217420	MAYWOOSP3_E	0.0077	Adder	0.01
217425	MAYWOOSP4_E	0.0102	Adder	0.01
217449	NEWMILSP1_E	0.0080	Adder	0.01
217457	NEWMILSP2_E	0.0080	Adder	0.01
217460	NEWMILSP3_E	0.0080	Adder	0.01
217480	NEWMILSP4_E	0.0080	Adder	0.01
217487	SADDLESP1_E	0.0070	Adder	0.01
217489	SADDLESP2_E	0.0070	Adder	0.01
217517	SADDLESP3_E	0.0070	Adder	0.01
217519	SADDLESP4_E	0.0070	Adder	0.01
217530	WALDWKSP1_E	0.0019	Adder	0.0
217541	WALDWKSP2_E	0.0020	Adder	0.0
217543	WALDWKSP3_E	0.0004	Adder	0.0
217545	WALDWKSP4_E	0.0004	Adder	0.0
217547	WCALDWSP1_E	0.0029	Adder	0.0
217550	WCALDWSP2_E	0.0029	Adder	0.0
217560	WCALDWSP3_E	0.0029	Adder	0.0
217563	WCALDWSP4_E	0.0029	Adder	0.0
217565	ATHENISP1_E	0.0209	Adder	0.02
217567	ATHENISP2_E	0.0209	Adder	0.02
217569	ATHENISP3_E	0.0209	Adder	0.02
217572	MARIONSP1_E	0.0252	Adder	0.03
217576	MARIONSP2_E	0.0252	Adder	0.03
217583	MARIONSP3_E	0.0252	Adder	0.03
217585	WORNGESP1_E	0.0119	Adder	0.01
217600	WORNGESP2_E	0.0119	Adder	0.01
217610	WORNGESP3_E	0.0119	Adder	0.01
217612	CEDARGSP1_E	0.0099	Adder	0.01
217614	CEDARGSP2_E	0.0099	Adder	0.01
217618	ERUTHSP1_E	0.0211	Adder	0.02
217630	ERUTHSP2_E	0.0211	Adder	0.02
217640	FAIRLASP1_E	0.0374	Adder	0.04
217642	FAIRLASP2_E	0.0374	Adder	0.04
217660	HINCHMSP1_E	0.0089	Adder	0.01
217670	HINCHMSP2_E	0.0089	Adder	0.01
217680	NORTHASP1_E	0.0304	Adder	0.04
217689	NORTHASP2_E	0.0304	Adder	0.04
217691	SPRINGSP1_E	0.0178	Adder	0.02
217710	SPRINGSP2_E	0.0179	Adder	0.02
217721	BELLEVSP1_E	0.0357	Adder	0.04
218344	TOSCO_G6	0.7606	50/50	0.7606
218418	LINDEN_G5	2.4924	50/50	2.4924
218419	LINDEN_G6	2.4924	50/50	2.4924
218423	LINDEN_G21	6.5928	50/50	6.5928
218424	LINDEN_G22	6.5928	50/50	6.5928
218425	LINDEN_G12	7.1922	50/50	7.1922
218426	LINDEN_2ST	11.3876	50/50	11.3876
218428	ETC SOLAR C	0.0146	50/50	0.0146

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218429	ETC SOLAR E	0.2007	50/50	0.2007
218450	ALDENESP1_E	0.0233	Adder	0.03
218513	ALDENESP2_E	0.0234	Adder	0.03
218545	WOODBRS1_C	0.0107	50/50	0.0107
218549	WOODBRS1_E	0.1010	50/50	0.1010
218554	WOODBRS2_C	0.0089	50/50	0.0089
218555	WOODBRS2_E	0.0841	50/50	0.0841
218558	WOODBRS3_C	0.0089	50/50	0.0089
218559	WOODBRS3_E	0.0843	50/50	0.0843
218636	METUCHSP1_C	0.0158	50/50	0.0158
218640	METUCHSP1_E	0.1491	50/50	0.1491
218655	METUCHSP2_C	0.0158	50/50	0.0158
218659	METUCHSP2_E	0.1491	50/50	0.1491
218662	MINUESP1_C	0.0025	50/50	0.0025
218663	MINUESP1_E	0.0243	50/50	0.0243
218664	MINUESP2_C	0.0017	50/50	0.0017
218665	MINUESP2_E	0.0167	50/50	0.0167
218667	NWKS WTSP1_E	0.0425	Adder	0.05
218672	KENILWRTH E	1.1471	Adder	1.35
218675	WARINASP1_E	0.0487	Adder	0.06
218677	WARINASP2_E	0.0484	Adder	0.06
218727	LINSOLAR E	0.2539	Adder	0.3
219001	SEWAREN7GT	13.0129	50/50	13.0129
219002	SEWAREN7ST	19.5193	50/50	19.5193
219679	NRGCENTER E	-0.2903	Adder	-0.34
219881	V2-009 E2	-0.6569	Adder	-0.77
219883	V2-009 E1	-0.3278	Adder	-0.39
913101	Y1-026	6.0748	50/50	6.0748
917001	Z2-000 C O1	273.2983	50/50	273.2983
917002	Z2-000 E O1	1.6292	50/50	1.6292
917011	Z2-002 C	2.1576	50/50	2.1576
917521	SEWARENG7E1	4.8169	50/50	4.8169
917522	SEWARENG7E2	4.8169	50/50	4.8169
919712	AA2-058 E	-0.0688	Adder	-0.08
919802	AA2-066 E	-0.2903	Adder	-0.34
920031	AA2-099 C	2.0453	50/50	2.0453
924431	AB2-092	7.1113	Adder	8.37
930092	AB1-021 E	0.1989	Adder	0.23
930901	AB1-139 C	0.1756	50/50	0.1756
930902	AB1-139 E	1.6699	50/50	1.6699
934302	AD1-054 E	0.2011	Adder	0.24
936193	AD2-025 BAT	0.3221	Merchant Transmission	0.3221
938281	AE1-041 C	0.0141	50/50	0.0141
938282	AE1-041 E	0.3666	50/50	0.3666
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	444.6360	50/50	444.6360
943841	AF1-052 C	15.1031	Adder	17.77
943842	AF1-052 E	0.0529	Adder	0.06
945723	AF1-237 BAT	28.9480	Merchant Transmission	28.9480
945801	AF1-245 C O1	10.6121	Adder	12.48
945802	AF1-245 E O1	15.9181	Adder	18.73
961231	AF2-414 O2	21.2915	Adder	47.26
961241	AF2-415 O2	10.6458	Adder	23.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961251	AF2-416	0.7097	Adder	1.58
NEWTON	NEWTON	0.5405	Confirmed LTF	0.5405
FARMERCITY	FARMERCITY	0.0283	Confirmed LTF	0.0283
G-007A	G-007A	0.2086	Confirmed LTF	0.2086
VFT	VFT	139.4361	Confirmed LTF	139.4361
CALDERWOOD	CALDERWOOD	0.2644	Confirmed LTF	0.2644
PRAIRIE	PRAIRIE	1.3096	Confirmed LTF	1.3096
CHEOAH	CHEOAH	0.2668	Confirmed LTF	0.2668
EDWARDS	EDWARDS	0.1746	Confirmed LTF	0.1746
TILTON	TILTON	0.3144	Confirmed LTF	0.3144
GIBSON	GIBSON	0.2741	Confirmed LTF	0.2741
BLUEG	BLUEG	0.8715	Confirmed LTF	0.8715
TRIMBLE	TRIMBLE	0.2794	Confirmed LTF	0.2794
CATAWBA	CATAWBA	0.1950	Confirmed LTF	0.1950

12.4.8 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 LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
100380109	218469	METUCHE N	PSE&G	218357	PRSSNAV_ R	PSE&G	1	PS_P7-1_D2204+S2219_L T	tower	885.0	134.93	136.16	DC	23.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217082	WEATEXAS E	0.1436	Adder	0.17
217104	FAIRLAWN_AB	8.9765	Adder	10.56
217203	FBANKSOLAR E	0.0854	Adder	0.1
217205	WCALDSOLAR E	0.1988	Adder	0.23
217207	PARK ELE E	0.0357	Adder	0.04
217210	CAMDEN ST E	0.0394	Adder	0.05
217212	AMBOY SO E	0.5525	50/50	0.5525
217213	AMBOY SO C	0.0603	50/50	0.0603
217214	CENTRL HS E	0.0504	Adder	0.06
217216	BARNGR HS E	0.0450	Adder	0.05
217218	BAYON2SP2_E	0.0074	Adder	0.01
217249	HACKENSOLA E	0.0830	Adder	0.1
217254	BAYON2SP4_E	0.0055	Adder	0.01
217255	BAYON2SP3_E	0.0093	Adder	0.01
217256	COOKPTSP1_E	0.0050	Adder	0.01
217270	COOKPTSP2_E	0.0053	Adder	0.01
217272	COOKPTSP3_E	0.0050	Adder	0.01
217274	COOKPTSP4_E (Deactivation : 01/06/2015)	0.0042	Adder	0.0
217276	DOREMUSP1_E	0.0060	Adder	0.01
217280	DOREMUSP2_E	0.0064	Adder	0.01
217282	DOREMUSP3_E	0.0064	Adder	0.01
217284	DOREMUSP4_E	0.0060	Adder	0.01
217289	HOBK1SP1_E	0.0120	Adder	0.01
217291	HOBK1SP2_E	0.0120	Adder	0.01
217295	HOBK1SP3_E	0.0120	Adder	0.01
217297	HOBK1SP4_E	0.0120	Adder	0.01
217305	HILLDASP1_E	0.0020	Adder	0.0
217318	HILLDASP2_E	0.0020	Adder	0.0
217335	HILLDASP3_E	0.0020	Adder	0.0
217337	HILLDASP4_E	0.0020	Adder	0.0
217341	HOBK2SP1_E	0.0012	Adder	0.0
217343	HOBK2SP2_E	0.0012	Adder	0.0
217345	HOBK2SP3_E	0.0012	Adder	0.0
217350	HOBK2SP4_E	0.0012	Adder	0.0
217360	JACKPSSP1_E	0.0060	Adder	0.01
217364	JACKPSSP2_E	0.0060	Adder	0.01
217387	JACKPSSP3_E	0.0060	Adder	0.01
217389	JACKPSSP4_E	0.0060	Adder	0.01
217393	LEONIASP1_E	0.0152	Adder	0.02
217397	LEONIASP2_E	0.0152	Adder	0.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217399	LEONIASP3_E	0.0152	Adder	0.02
217406	LEONIASP4_E	0.0152	Adder	0.02
217410	MAYWOOSP1_E	0.0102	Adder	0.01
217418	MAYWOOSP2_E	0.0102	Adder	0.01
217420	MAYWOOSP3_E	0.0077	Adder	0.01
217425	MAYWOOSP4_E	0.0102	Adder	0.01
217449	NEWMILSP1_E	0.0080	Adder	0.01
217457	NEWMILSP2_E	0.0080	Adder	0.01
217460	NEWMILSP3_E	0.0080	Adder	0.01
217480	NEWMILSP4_E	0.0080	Adder	0.01
217487	SADDLESP1_E	0.0070	Adder	0.01
217489	SADDLESP2_E	0.0070	Adder	0.01
217517	SADDLESP3_E	0.0070	Adder	0.01
217519	SADDLESP4_E	0.0070	Adder	0.01
217530	WALDWKSP1_E	0.0019	Adder	0.0
217541	WALDWKSP2_E	0.0020	Adder	0.0
217543	WALDWKSP3_E	0.0004	Adder	0.0
217545	WALDWKSP4_E	0.0004	Adder	0.0
217547	WCALDWSP1_E	0.0029	Adder	0.0
217550	WCALDWSP2_E	0.0029	Adder	0.0
217560	WCALDWSP3_E	0.0029	Adder	0.0
217563	WCALDWSP4_E	0.0029	Adder	0.0
217565	ATHENISP1_E	0.0209	Adder	0.02
217567	ATHENISP2_E	0.0209	Adder	0.02
217569	ATHENISP3_E	0.0209	Adder	0.02
217572	MARIONSP1_E	0.0252	Adder	0.03
217576	MARIONSP2_E	0.0252	Adder	0.03
217583	MARIONSP3_E	0.0252	Adder	0.03
217585	WORNGESP1_E	0.0119	Adder	0.01
217600	WORNGESP2_E	0.0119	Adder	0.01
217610	WORNGESP3_E	0.0119	Adder	0.01
217612	CEDARGSP1_E	0.0099	Adder	0.01
217614	CEDARGSP2_E	0.0099	Adder	0.01
217618	ERUTHSP1_E	0.0211	Adder	0.02
217630	ERUTHSP2_E	0.0211	Adder	0.02
217640	FAIRLASP1_E	0.0374	Adder	0.04
217642	FAIRLASP2_E	0.0374	Adder	0.04
217660	HINCHMSP1_E	0.0089	Adder	0.01
217670	HINCHMSP2_E	0.0089	Adder	0.01
217680	NORTHASP1_E	0.0304	Adder	0.04
217689	NORTHASP2_E	0.0304	Adder	0.04
217691	SPRINGSP1_E	0.0178	Adder	0.02
217710	SPRINGSP2_E	0.0179	Adder	0.02
217721	BELLEVSP1_E	0.0357	Adder	0.04
218344	TOSCO_G6	0.7606	50/50	0.7606
218418	LINDEN_G5	2.4924	50/50	2.4924
218419	LINDEN_G6	2.4924	50/50	2.4924
218423	LINDEN_G21	6.5928	50/50	6.5928
218424	LINDEN_G22	6.5928	50/50	6.5928
218425	LINDEN_G12	7.1922	50/50	7.1922
218426	LINDEN_2ST	11.3876	50/50	11.3876
218450	ALDENESP1_E	0.0233	Adder	0.03

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218513	ALDENESP2_E	0.0234	Adder	0.03
218545	WOODBRS1_C	0.0107	50/50	0.0107
218549	WOODBRS1_E	0.1010	50/50	0.1010
218554	WOODBRS2_C	0.0089	50/50	0.0089
218555	WOODBRS2_E	0.0841	50/50	0.0841
218558	WOODBRS3_C	0.0089	50/50	0.0089
218559	WOODBRS3_E	0.0843	50/50	0.0843
218636	METUCHSP1_C	0.0158	50/50	0.0158
218640	METUCHSP1_E	0.1491	50/50	0.1491
218655	METUCHSP2_C	0.0158	50/50	0.0158
218659	METUCHSP2_E	0.1491	50/50	0.1491
218662	MINUESP1_C	0.0025	50/50	0.0025
218663	MINUESP1_E	0.0243	50/50	0.0243
218664	MINUESP2_C	0.0017	50/50	0.0017
218665	MINUESP2_E	0.0167	50/50	0.0167
218667	NWKS WTSP1_E	0.0425	Adder	0.05
218672	KENILWRTH E	1.1471	Adder	1.35
218675	WARINASP1_E	0.0487	Adder	0.06
218677	WARINASP2_E	0.0484	Adder	0.06
218727	LINSOLAR E	0.2539	Adder	0.3
219001	SEWAREN7GT	13.0129	50/50	13.0129
219002	SEWAREN7ST	19.5193	50/50	19.5193
219679	NRGCENTER E	-0.2903	Adder	-0.34
219881	V2-009 E2	-0.6569	Adder	-0.77
219883	V2-009 E1	-0.3278	Adder	-0.39
913101	Y1-026	6.0751	50/50	6.0751
917001	Z2-000 C O1	273.2983	50/50	273.2983
917002	Z2-000 E O1	1.6292	50/50	1.6292
917011	Z2-002 C	2.1576	50/50	2.1576
917521	SEWARENG7E1	4.8169	50/50	4.8169
917522	SEWARENG7E2	4.8169	50/50	4.8169
919712	AA2-058 E	-0.0688	Adder	-0.08
919802	AA2-066 E	-0.2903	Adder	-0.34
920031	AA2-099 C	2.0453	50/50	2.0453
924431	AB2-092	7.1113	Adder	8.37
930092	AB1-021 E	0.1989	Adder	0.23
930901	AB1-139 C	0.1756	50/50	0.1756
930902	AB1-139 E	1.6699	50/50	1.6699
934302	AD1-054 E	0.2011	Adder	0.24
936193	AD2-025 BAT	0.3221	Merchant Transmission	0.3221
938281	AE1-041 C	0.0141	50/50	0.0141
938282	AE1-041 E	0.3666	50/50	0.3666
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	444.6360	50/50	444.6360
943841	AF1-052 C	15.1031	Adder	17.77
943842	AF1-052 E	0.0529	Adder	0.06
945723	AF1-237 BAT	28.9480	Merchant Transmission	28.9480
945801	AF1-245 C O1	10.6121	Adder	12.48
945802	AF1-245 E O1	15.9181	Adder	18.73
961231	AF2-414 O2	21.2915	Adder	47.26
961241	AF2-415 O2	10.6458	Adder	23.63
961251	AF2-416	0.7097	Adder	1.58
NEWTON	NEWTON	0.5405	Confirmed LTF	0.5405

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
FARMERCITY	FARMERCITY	0.0283	Confirmed LTF	0.0283
G-007A	G-007A	0.2086	Confirmed LTF	0.2086
VFT	VFT	139.4361	Confirmed LTF	139.4361
CALDERWOOD	CALDERWOOD	0.2644	Confirmed LTF	0.2644
PRAIRIE	PRAIRIE	1.3096	Confirmed LTF	1.3096
CHEOAH	CHEOAH	0.2668	Confirmed LTF	0.2668
EDWARDS	EDWARDS	0.1746	Confirmed LTF	0.1746
TILTON	TILTON	0.3144	Confirmed LTF	0.3144
GIBSON	GIBSON	0.2741	Confirmed LTF	0.2741
BLUEG	BLUEG	0.8715	Confirmed LTF	0.8715
TRIMBLE	TRIMBLE	0.2794	Confirmed LTF	0.2794
CATAWBA	CATAWBA	0.1950	Confirmed LTF	0.1950

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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
100380224	218469	METUCHEN	PSE&G	218355	NEWDOVR_H	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	104.21	106.45	DC	19.79

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206638	28PEAPACK	-0.2814	Adder	-0.33
206679	28M&M S721	-0.7152	Adder	-0.84
207411	AA2-060 BAT	0.5602	Merchant Transmission	0.5602
207414	AA2-061 BAT	0.7469	Merchant Transmission	0.7469
217104	FAIRLAWN_AB	-7.5026	Adder	-8.83
217196	RE CRAN E	0.3354	50/50	0.3354
217197	RE CRAN C	0.0355	50/50	0.0355
217198	V3-058 E	0.2490	50/50	0.2490
217199	V3-059 E	0.2490	50/50	0.2490
217212	AMBOY SO E	0.4134	50/50	0.4134
217213	AMBOY SO C	0.0451	50/50	0.0451
218359	V2-009 E3	0.3275	Adder	0.39
218379	BRUNSWCK_AB	0.1933	50/50	0.1933
218428	ETC SOLAR C	0.0099	50/50	0.0099
218429	ETC SOLAR E	0.1356	50/50	0.1356
218437	BLK ROCK E	0.1520	50/50	0.1520
218438	BLK ROCK C	0.0168	50/50	0.0168
218439	SUMMTASSOC E	0.2901	50/50	0.2901
218440	SUMMTASSOC C	0.0307	50/50	0.0307
218545	WOODBRS1_C	0.0080	50/50	0.0080
218549	WOODBRS1_E	0.0755	50/50	0.0755
218554	WOODBRS2_C	0.0067	50/50	0.0067
218555	WOODBRS2_E	0.0630	50/50	0.0630
218558	WOODBRS3_C	0.0067	50/50	0.0067
218559	WOODBRS3_E	0.0630	50/50	0.0630
218573	BENNETSP1_E	0.0164	Adder	0.02
218578	BENNETSP2_E	0.0159	Adder	0.02
218584	BRUNSWSP1_C	0.0037	50/50	0.0037
218585	BRUNSWSP1_E	0.0350	50/50	0.0350
218591	BRUNSWSP2_C	0.0037	50/50	0.0037
218608	BRUNSWSP2_E	0.0350	50/50	0.0350
218612	MIDDL2SP1_C	0.0015	50/50	0.0015
218625	MIDDL2SP1_E	0.0141	50/50	0.0141
218626	MIDDL2SP2_C	0.0015	50/50	0.0015
218627	MIDDL2SP2_E	0.0141	50/50	0.0141
218636	METUCHSP1_C	0.0113	50/50	0.0113
218640	METUCHSP1_E	0.1065	50/50	0.1065
218655	METUCHSP2_C	0.0113	50/50	0.0113
218659	METUCHSP2_E	0.1065	50/50	0.1065
218672	KENILWRTH E	-0.7094	Adder	-0.83
218728	CNTRALGAS1 C	0.0475	50/50	0.0475
218729	CNTRALGAS1 E	0.3327	50/50	0.3327

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218730	CNTRALGAS2 C	0.0448	50/50	0.0448
218731	CNTRALGAS2 E	0.3138	50/50	0.3138
219001	SEWAREN7GT	10.1882	50/50	10.1882
219002	SEWAREN7ST	15.2823	50/50	15.2823
219612	MATRIX C	0.0201	50/50	0.0201
219613	MATRIX E	0.1912	50/50	0.1912
219878	V2-009 E4	0.1970	Adder	0.23
219881	V2-009 E2	0.3332	50/50	0.3332
219882	V2-009 C2	0.0353	50/50	0.0353
219883	V2-009 E1	0.1663	50/50	0.1663
219884	V2-009 C1	0.0177	50/50	0.0177
917001	Z2-000 C O1	195.2543	50/50	195.2543
917002	Z2-000 E O1	1.1640	50/50	1.1640
917521	SEWARENG7E1	3.7713	50/50	3.7713
917522	SEWARENG7E2	3.7713	50/50	3.7713
920031	AA2-099 C	1.6013	50/50	1.6013
924131	AB2-057 C	0.0816	50/50	0.0816
924132	AB2-057 E	0.7718	50/50	0.7718
924431	AB2-092	-5.4854	Adder	-6.45
930092	AB1-021 E	-0.2022	Adder	-0.24
930901	AB1-139 C	0.1255	50/50	0.1255
930902	AB1-139 E	1.1931	50/50	1.1931
933332	AC2-145 E (Suspended)	-0.0184	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0216	50/50	0.0216
937513	AD2-210 BAT (Suspended)	0.2391	50/50	0.2391
938281	AE1-041 C	0.0100	50/50	0.0100
938282	AE1-041 E	0.2619	50/50	0.2619
938413	AE1-060 BAT	1.6909	Merchant Transmission	1.6909
938601	AE1-081 C	-0.0766	Adder	-0.09
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	348.1200	50/50	348.1200
942253	AE2-237 BAT	10.1532	Merchant Transmission	10.1532
943483	AF1-019 BAT	1.8610	Merchant Transmission	1.8610
945803	AF1-245 BAT	26.4520	50/50	26.4520
946603	AF1-324 BAT	2.2166	50/50	2.2166
946613	AF1-325 BAT	1.8844	Merchant Transmission	1.8844
946633	AF1-327 BAT	1.5924	Merchant Transmission	1.5924
946643	AF1-328 BAT	1.5858	Merchant Transmission	1.5858
961232	AF2-414 BAT	39.5760	50/50	39.5760
961242	AF2-415 BAT	19.7880	50/50	19.7880
961252	AF2-416 BAT	1.3192	50/50	1.3192
961512	AF1-442 NFTW	4.2232	Merchant Transmission	4.2232
961522	AF1-443 NFTW	4.2245	Merchant Transmission	4.2245
WEC	WEC	0.0687	Confirmed LTF	0.0687
LGEE	LGEE	0.1267	Confirmed LTF	0.1267
CPL	CPL	0.1925	Confirmed LTF	0.1925
CBM-W2	CBM-W2	1.9001	Confirmed LTF	1.9001
NY	NY	3.3064	Confirmed LTF	3.3064
CBM-W1	CBM-W1	2.6646	Confirmed LTF	2.6646
TVA	TVA	0.3374	Confirmed LTF	0.3374
O-066	O-066	88.6502	Confirmed LTF	88.6502
CBM-S2	CBM-S2	1.5895	Confirmed LTF	1.5895

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	2.0278	Confirmed LTF	2.0278
G-007	G-007	1.6182	Confirmed LTF	1.6182
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
MEC	MEC	0.3543	Confirmed LTF	0.3543

12.5 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
PS_P2-3_LIND2_4-7	CONTINGENCY 'PS_P2-3_LIND2_4-7' DISCONNECT BRANCH FROM BUS 217050 TO BUS 218300 CKT 1 /* LINDEN 230/138 DISCONNECT BUS 219046 /* TOSCO 3 BUS SECTION END
PS_P1-2_S-2297	CONTINGENCY 'PS_P1-2_S-2297' /* WILLIAMS PIPELINE TO ROSELAND TRIP LINE FROM BUS 216950 TO BUS 217870 CKT 1 /* PIPELINE TO ROSELAND END
PS_P7-1_G2207+R2218	CONTINGENCY 'PS_P7-1_G2207+R2218' /* LINDEN - DEAN & LINDEN - SEWARREN DISCONNECT BUS 218354 /* MINUE STREET G DISCONNECT BUS 218353 /* MINUE STREET R MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218413 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T3 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218410 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WARINICO T1 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 END
PS_P1-2_R-2218	CONTINGENCY 'PS_P1-2_R-2218' /* LINDEN TO SEWARREN DISCONNECT BUS 218353 /* MINUE R CLOSE LINE FROM BUS 218396 TO BUS 218397 CKT Z /* MINUE STREET END

Contingency Name	Contingency Definition
PS_P7-1_D2204+S2219_LT	CONTINGENCY 'PS_P7-1_D2204+S2219_LT' /* DEANS - BRUSWICK & DEANS - METUCHEN TRIP LINE FROM BUS 218304 TO BUS 218306 CKT 1 DISCONNECT BUS 218358 /* PIERSON AVE S CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z/* PIERSON AVE DISCONNECT BUS 218351 /* MDWRD_S CLOSE LINE FROM BUS 218392 TO BUS 218393 CKT Z/* MDWRD_L1_L2 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO KILMER T4 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO LAFAYET T2 MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO LAFAYET T2 END
PS_P7-1_H2286+W2249_LT	CONTINGENCY 'PS_P7-1_H2286+W2249_LT' /* DEANS - WESTFIELD & METUCHEN - FANWOOD DISCONNECT BUS 218355 /* NEW DOVER H DISCONNECT BUS 218320 /* FANWOOD 1 DISCONNECT BUS 218305 /* WESTFIELD 1 DISCONNECT BUS 218356 /* NEW DOVER W CLOSE LINE FROM BUS 218415 TO BUS 218416 CKT Z /* WESTFIELD CLOSE LINE FROM BUS 218380 TO BUS 218381 CKT Z /* FANWOOD MOVE 8 MW LOAD FROM BUS 218380 TO BUS 218374 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO ALDENE T10 MOVE 8 MW LOAD FROM BUS 218381 TO BUS 216926 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T1 MOVE 8 MW LOAD FROM BUS 218380 TO BUS 216927 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T2 MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218412 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO WDBRDG T2 MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218391 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO LAFAYET T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218401 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218402 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T2 END
PS_P2-3_DEAN_9-10	CONTINGENCY 'PS_P2-3_DEAN_9-10' TRIP LINE FROM BUS 218304 TO BUS 218306 CKT 1 /* DEANS TO BRUNSWICK DISCONNECT BRANCH FROM BUS 200006 TO BUS 218306 CKT 3 END

Contingency Name	Contingency Definition
PS_P1-2_H-2286	CONTINGENCY 'PS_P1-2_H-2286' /* FANWOOD TO METUCHEN DISCONNECT BUS 218355 /* NEW DOVER REMOVE H DISCONNECT BUS 218320 /* REMOVE FANWOOD SECTION 1 CLOSE LINE FROM BUS 218398 TO BUS 218399 CKT Z /* NEW DOVER CLOSE LINE FROM BUS 218380 TO BUS 218381 CKT Z /* FANWOOD END
PS_P1-2_Z-2331	CONTINGENCY 'PS_P1-2_Z-2331' /* METUCHEN_BRUNSWICK DISCONNECT BUS 218352 /* MEDOWS ROAD R CLOSE LINE FROM BUS 218393 TO BUS 218392 CKT Z /* MEADOW ROAD DISCONNECT BUS 218357 /* PIERSON AVE R CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z /* PIERSON AVE END
PS_P7-1_G2207+H2286_LT	CONTINGENCY 'PS_P7-1_G2207+H2286_LT' /*FANWOOD-METUCHEN & LINDEN-DEANS DISCONNECT BUS 218354 /* MINUE STREET G DISCONNECT BUS 218355 /* NEW DOVERH DISCONNECT BUS 218320 /* FANWOOD 1 CLOSE LINE FROM BUS 218398 TO BUS 218399 CKT Z /* NEW DOVER MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218412 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO WDBRDG T2 MOVE 8 MW LOAD FROM BUS 218398 TO BUS 218391 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO LAFAYET T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218401 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T1 MOVE 8 MW LOAD FROM BUS 218399 TO BUS 218402 /* INTERSTATION TIE TRANSFER LOAD FROM NEWDOVR TO PRSNAVS T2 CLOSE LINE FROM BUS 218380 TO BUS 218381 CKT Z /* FANWOOD MOVE 8 MW LOAD FROM BUS 218381 TO BUS 218415 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO WESTFIELD T1 MOVE 8 MW LOAD FROM BUS 218380 TO BUS 218374 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO ALDENE T10 MOVE 8 MW LOAD FROM BUS 218381 TO BUS 216926 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T1 MOVE 8 MW LOAD FROM BUS 218380 TO BUS 216927 /* INTERSTATION TIE TRANSFER LOAD FROM FANWOOD TO SPRINGRD T2 CLOSE LINE FROM BUS 218396 TO BUS 218397 CKT Z /* MINUE STREET MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218413 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T3 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 MOVE 8 MW LOAD FROM BUS 218397 TO BUS 218410 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WARINICO T1 MOVE 8 MW LOAD FROM BUS 218396 TO BUS 218414 /* INTERSTATION TIE TRANSFER LOAD FROM MINUEST TO WDBRDG T1 END

Contingency Name	Contingency Definition
PS_P1-2_Y-2277	CONTINGENCY 'PS_P1-2_Y-2277' /* CEDAR GROVE TO ROSELAND TRIP LINE FROM BUS 216915 TO BUS 216950 CKT 1 /* ROSELAND TO CEDAR GROVE DISCONNECT BRANCH FROM BUS 216915 TO BUS 216928 CKT 1 /* CEDAR GROVE T1 CLOSE BRANCH FROM BUS 216928 TO BUS 216929 CKT Z /* CEDAR GROVE T10/20 END
PS_P1-2_S-2219	CONTINGENCY 'PS_P1-2_S-2219' /* METUCHEN TO DEANS DISCONNECT BUS 218358 /* PIERSON AVE S CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z/* PIERSON AVE DISCONNECT BUS 218351 /* MDWRD_S CLOSE LINE FROM BUS 218392 TO BUS 218393 CKT Z/* MDWRD_L1_L2 END
PS_P1-2_U-2273	CONTINGENCY 'PS_P1-2_U-2273' /* VFT TO WARRINCO DISCONNECT BUS 219050 /* VFT SECTION 1 DISCONNECT BUS 219049 /* WARRINACO 1 CLOSE LINE FROM BUS 218410 TO BUS 218411 CKT Z /* WARRINCO END
PS_P1-2_S-2219_LT	CONTINGENCY 'PS_P1-2_S-2219_LT' /* METUCHEN TO DEANS DISCONNECT BUS 218358 /* PIERSON AVE S CLOSE LINE FROM BUS 218401 TO BUS 218402 CKT Z/* PIERSON AVE DISCONNECT BUS 218351 /* MDWRD_S CLOSE LINE FROM BUS 218392 TO BUS 218393 CKT Z/* MDWRD_L1_L2 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO KILMER T4 MOVE 8 MW LOAD FROM BUS 218401 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218402 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM PRSNAVS TO LAFAYET T2 MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218392 TO BUS 219616 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO HARTS LANE MOVE 8 MW LOAD FROM BUS 218393 TO BUS 218390 /* INTERSTATION TIE TRANSFER LOAD FROM MDWRD TO LAFAYET T2 END
Base Case	

13 Affected Systems

None