



**Generation Interconnection  
Feasibility Study Report  
for  
Queue Project AF2-414  
BERGEN 345 KV  
300 MW Capacity / 300 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), the 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 300 MW with 300 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 01, 2023. This study does not imply a TO commitment to this in-service date.

<b>Queue Number</b>	<b>AF2-414</b>
<b>Project Name</b>	BERGEN 345 KV
<b>State</b>	New Jersey
<b>County</b>	Hudson
<b>Transmission Owner</b>	PSEG
<b>MFO</b>	300
<b>MWE</b>	300
<b>MWC</b>	300
<b>Fuel</b>	Storage
<b>Basecase Study Year</b>	2023

Any New Service Customer proposing a project that can feasibly be commercially operable prior to June 1st of the basecase study year is required to request interim deliverability analysis.

### 4 Point of Interconnection

AF2-414 will interconnect with the PSEG transmission system via one of the following options:

Option 1: at the Bergen 345 kV substation. The Point of Interconnection will be located at the termination of the line on the Interconnection Customer's structure one span outside of the substation

Option 2: at the Bergen 230 kV substation.

### 5 Cost Summary

The AF2-414 project will be responsible for the following costs:

<b>Description</b>	<b>Total Cost</b>
<b>Total Physical Interconnection Costs</b>	\$ 16,970,000
<b>Total System Network Upgrade Costs</b>	\$ 296,596,837
<b>Total Costs</b>	\$ 313,566,837

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

- Installation of new conductor from existing A-frame up to the POI.
- Installation of relays associated with generator lead line. Installation of revenue grade metering.

### 6.2 Direct Connection Network Upgrades

- Installation of a new 345kV GIS bay with associated Gas Insulated Bus and A-frame to provide a new 345kV bus position at the Bergen 345kV yard.

### 6.3 Non-Direct Connection Network Upgrades

- Move two existing 345kV circuits to the northwest to allow the generator to attach to an existing bus position.
- Modification of existing 230kV strain bus to provide adequate clearance for new bus position & A-frame.
- General site work.

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

Description	Total Cost
Attachment Facilities	\$240,000
Direct Connection Network Upgrades	\$11,720,000
Non-Direct Connection Network Upgrades	\$5,010,000
<b>Total Physical Interconnection Costs</b>	<b>\$16,970,000</b>

## 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.

## 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 Interconnection Customer will be required to comply with all PSE&G Revenue Metering Requirements for Generation Interconnection Customers. The Revenue Metering Requirements may be found within the “Information and Requirements for Electric Service” document 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 AF2-414 was evaluated as a 300.0 MW (Capacity 300.0 MW) injection at the **Bergen 345 kV substation** in the PSEG area. Project AF2-414 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-414 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
100378792	218355	NEWDOVR_H	230.0	PSE&G	218320	FANWOOD_1	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	96.61	100.74	DC	36.52
100378778	218469	METUCHEN	230.0	PSE&G	218355	NEWDOVR_H	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	99.74	103.87	DC	36.52

### 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
100378160	217101	STANTER_3	230.0	PSE&G	217170	MCCARTER	230.0	PSE&G	1	PS_P1-2_G-2285_LT/* ALDENE TO SPRINGFIELD ROAD	single	522.0	101.07	104.45	DC	17.66
100378161	217101	STANTER_3	230.0	PSE&G	217170	MCCARTER	230.0	PSE&G	1	PS_P1-2_G-2285/* ALDENE TO SPRINGFIELD ROAD	single	522.0	100.67	104.05	DC	17.66
100377746	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	100.57	111.87	DC	107.31
100378118	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	Base Case	single	936.0	112.68	117.56	DC	45.7
100378119	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	PS_P1-2_H-2286	single	1081.0	109.58	113.68	DC	44.38
100378747	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	1081.0	118.06	119.53	DC	34.37
100378748	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	1081.0	110.98	113.29	DC	54.29
100378096	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	118.22	121.62	DC	36.48
100378098	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331	single	887.0	116.73	120.13	DC	36.48
100378129	218307	ALDENE_2	230.0	PSE&G	218430	STANTER_1	230.0	PSE&G	1	PS_P1-2_G-2285_LT/* ALDENE TO SPRINGFIELD ROAD	single	558.0	113.16	116.11	DC	16.47

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
100378130	218307	ALDENE_2	230.0	PSE&G	218430	STANTER_1	230.0	PSE&G	1	PS_P1-2_G-2285/* ALDENE TO SPRINGFIELD ROAD	single	558.0	112.07	115.02	DC	16.47
100377711	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P2-3_LIND2_5-6	breaker	887.0	112.49	121.26	DC	77.78
100378689	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7- 1_H2286+W2249_LT	tower	887.0	120.4	128.72	DC	73.82
100378690	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7- 1_G2207+H2286_LT	tower	887.0	112.44	121.47	DC	80.04
100378082	218343	TOSCO_2	230.0	PSE&G	218441	VFT_2	230.0	PSE&G	1	Base Case	single	936.0	119.4	124.25	DC	45.43
100378083	218343	TOSCO_2	230.0	PSE&G	218441	VFT_2	230.0	PSE&G	1	PS_P1-2_H-2286	single	1081.0	115.44	119.52	DC	44.1
100378722	218343	TOSCO_2	230.0	PSE&G	218441	VFT_2	230.0	PSE&G	1	PS_P7- 1_H2286+W2249_LT	tower	1081.0	122.43	123.89	DC	34.09
100378723	218343	TOSCO_2	230.0	PSE&G	218441	VFT_2	230.0	PSE&G	1	PS_P7- 1_G2207+H2286_LT	tower	1081.0	115.29	117.58	DC	54.01
100377761	218345	ALDENE_6	230.0	PSE&G	216911	SPRINGRD_3	230.0	PSE&G	1	PS_P2-3_STAN_1-2	breaker	699.0	109.64	111.14	DC	22.69
100378142	218345	ALDENE_6	230.0	PSE&G	216911	SPRINGRD_3	230.0	PSE&G	1	Base Case	single	479.0	102.77	106.77	DC	19.18
100378143	218345	ALDENE_6	230.0	PSE&G	216911	SPRINGRD_3	230.0	PSE&G	1	PS_P1-2_O-2320	single	699.0	103.1	106.34	DC	22.66
100377737	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	117.62	120.34	DC	52.65
100378072	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	120.67	126.08	DC	58.23
100378073	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	117.48	122.89	DC	58.23
100378074	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	single	731.0	117.67	122.88	DC	46.34
100378697	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P7- 1_D2204+S2219_LT	tower	885.0	127.18	130.11	DC	56.75
100378702	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7- 1_H2286+W2249_LT	tower	887.0	117.62	125.94	DC	73.82
100378703	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7- 1_G2207+H2286_LT	tower	887.0	110.51	119.54	DC	80.04
100377716	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	120.73	123.45	DC	52.66
100378050	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	123.72	129.13	DC	58.23
100378051	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	123.29	128.7	DC	58.23
100378052	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	single	731.0	121.53	126.74	DC	46.34
100378684	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P7- 1_D2204+S2219_LT	tower	885.0	129.56	132.49	DC	56.76
100378009	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	130.28	135.69	DC	58.23
100378010	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	126.24	131.65	DC	58.23
100378011	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	Base Case	single	731.0	125.51	130.72	DC	46.34
100378663	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P7- 1_D2204+S2219_LT	tower	885.0	132.49	135.42	DC	56.76

#### 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
100378146	216950	ROSELAND	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_S-2297	operation	887.0	98.43	105.8	DC	65.34
100378158	217101	STANTER_3	230.0	PSE&G	217170	MCCARTER	230.0	PSE&G	1	PS_P1-2_G-2285_LT/*ALDENE TO SPRINGFIELD ROAD	operation	522.0	108.1	109.67	DC	17.66
100378117	217134	BAYWAY	345.0	PSE&G	216908	BAYONNE	345.0	PSE&G	1	Base Case	operation	670.0	86.0	111.66	DC	159.06
100378163	217870	WILPIPE	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_Y-2277	operation	887.0	95.97	103.27	DC	64.7
100378121	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	Base Case	operation	936.0	111.16	113.39	DC	45.7
100378124	218300	LINDEN	230.0	PSE&G	219046	TOSCO_3	230.0	PSE&G	1	PS_P1-2_H-2286	operation	1081.0	108.79	110.69	DC	44.38
100378170	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P1-2_U-2273	operation	950.0	94.1	102.94	DC	84.02
100378097	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	operation	887.0	119.53	121.41	DC	36.48
100378091	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	113.63	121.19	DC	67.06
100378085	218343	TOSCO_2	230.0	PSE&G	218441	VFT_2	230.0	PSE&G	1	Base Case	operation	936.0	116.57	118.8	DC	45.43
100378140	218345	ALDENE_6	230.0	PSE&G	216911	SPRINGRD_3	230.0	PSE&G	1	PS_P1-2_O-2320	operation	699.0	109.43	110.93	DC	22.66
100378141	218345	ALDENE_6	230.0	PSE&G	216911	SPRINGRD_3	230.0	PSE&G	1	Base Case	operation	479.0	108.07	109.92	DC	19.18
100378077	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	operation	885.0	116.35	119.36	DC	58.23
100378080	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	operation	731.0	113.32	116.22	DC	46.34
100378105	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	110.85	118.41	DC	67.06
100378055	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	119.11	122.11	DC	58.23
100378058	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	operation	731.0	119.46	122.36	DC	46.34
100378012	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	125.64	128.65	DC	58.23
100378017	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	Base Case	operation	731.0	123.44	126.34	DC	46.34

## 9.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Index	Facility	Upgrade Description	Cost
100378051, 100377716, 100378052, 100378684, 100378050	13	PRSNV_R 230.0 kV - MDWRD_R 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I016b_PieMdwZ (1956) : <b>Reconductor and upgrade terminal equipment to 1770MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$9,287,360</b> Time Estimate : <b>39.0 Months</b>	\$9,287,360
100378689, 100377711, 100378690	8	SEWAREN 230.0 kV - MINUEST_R 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I010a_SewMin (1947) : <b>Reconductor to 1080MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$7,969,000</b> Time Estimate : <b>33.0 Months</b>  r_PS_I010b_SewMin (1948) : <b>Wreck and Rebuild to 1625MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$35,100,000</b> Time Estimate : <b>45.0 Months</b>	\$43,069,000
100378118, 100378119, 100378747, 100378748	5	LINDEN 230.0 kV - TOSCO_3 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I012b_LinTOS (1951) : <b>Wreck and Rebuild to 1400MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$3,900,000</b> Time Estimate : <b>33.0 Months</b>	\$3,900,000
100378663, 100378011, 100378010, 100378009	14	METUCHEN 230.0 kV - PRSNV_R 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I017b_MetPierZ (1957) : <b>Reconductor and upgrade terminal equipment to 1770MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$15,026,083</b> Time Estimate : <b>39.0 Months</b>	\$15,026,083
100378778	2	METUCHEN 230.0 kV - NEWDOVR_H 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I018a_MetNDvr (1958) : <b>Reconductor to 1080MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$12,883,000</b> Time Estimate : <b>33.0 Months</b>	\$12,883,000
100378697, 100378074, 100378073, 100378072, 100377737	11	MDWRD_R 230.0 kV - BRUNSWCK 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I015b_MdwBrnsZ (1955) : <b>Reconductor to 1770MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$1,144,000</b> Time Estimate : <b>39.0 Months</b>	\$1,144,000

ID	Index	Facility	Upgrade Description	Cost
100378096, 100378098	6	DEANS 230.0 kV - BRUNSWCK 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I014a_DnsBrns (1953) : <b>Reconductor to 1080MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$11,375,000</b> Time Estimate : <b>33.0 Months</b>	\$11,375,000
100377746	4	LINDEN 230.0 kV - LINDEN_345 345.0 kV Ckt 1	<u>PSEG</u> r_PS_I009a_Li230345 (1946) : <b>Reconductor Strain Bus</b> Project Type : <b>FAC</b> Cost : <b>\$780,000</b> Time Estimate : <b>18.0 Months</b>	\$780,000
100378129, 100378130	7	ALDENE_2 230.0 kV - STANTER_1 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I007a_AldMc (1945) : <b>Construct new U/G Cable from Aldene 230kV to McCarter 230kV</b> Project Type : <b>CON</b> Cost : <b>\$134,223,394</b> Time Estimate : <b>54.0 Months</b>	\$134,223,394
100378161, 100378160	3	STANTER_3 230.0 kV - MCCARTER 230.0 kV Ckt 1		
100378143, 100378142, 100377761	10	ALDENE_6 230.0 kV - SPRINGRD_3 230.0 kV Ckt 1		
100378703, 100378702	12	MINUEST_R 230.0 kV - LINDEN 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I011a_MinLin (1949) : <b>Reconductor to 1080MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$9,360,000</b> Time Estimate : <b>33.0 Months</b>  <u>PSEG</u> r_PS_I011b_MinLin (1950) : <b>Wreck and Rebuild to 1625MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$39,000,000</b> Time Estimate : <b>45.0 Months</b>	\$48,360,000
100378792	1	NEWDOVR_H 230.0 kV - FANWOOD_1 230.0 kV Ckt 1	<u>PSEG</u> r_PS_I019a_NDvrFan (1959) : <b>Reconductor to 1080MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$12,649,000</b> Time Estimate : <b>33.0 Months</b>	\$12,649,000
100378723, 100378082, 100378083, 100378722	9	TOSCO_2 230.0 kV - VFT_2 230.0 kV Ckt 1	<u>PSEG</u> n5264 (1952) : <b>Wreck and Rebuild to 1400MVA SER</b> Project Type : <b>FAC</b> Cost : <b>\$3,900,000</b> Time Estimate : <b>33.0 Months</b>	\$3,900,000
			<b>TOTAL COST</b>	<b>\$296,596,837</b>

## 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".

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9.6.1 Index 1

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
10037879 2	21835 5	NEWDVR_	PSE&G	21832 0	FANWOOD_	PSE&G	1	PS_P7- 1_G2207+R221 8	tower	885.0	96.61	100.74	DC	36.52

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

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
<b>CBM-S2</b>	CBM-S2	1.5895	Confirmed LTF	1.5895
<b>CBM-S1</b>	CBM-S1	2.0278	Confirmed LTF	2.0278
<b>G-007</b>	G-007	1.6182	Confirmed LTF	1.6182
<b>MADISON</b>	MADISON	0.0121	Confirmed LTF	0.0121
<b>MEC</b>	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
100378778	218469	METUCHEN	PSE&G	218355	NEWDOVR_H	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	99.74	103.87	DC	36.52

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

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

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
100378161	217101	STANTER_3	PSE&G	217170	MCCARTER	PSE&G	1	PS_P1-2_G-2285/* ALDENE TO SPRINGFIELD ROAD	single	522.0	100.67	104.05	DC	17.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217081	WEATEXAS C	0.0069	80/20	0.0069
217197	RE CRAN C	0.0172	80/20	0.0172
217213	AMBOY SO C	0.0143	80/20	0.0143
217217	BAYON2SP2_C	0.0004	80/20	0.0004
217250	BAYON2SP4_C	0.0003	80/20	0.0003
217571	MARIONSP1_C	0.0012	80/20	0.0012
217575	MARIONSP2_C	0.0012	80/20	0.0012
217580	MARIONSP3_C	0.0012	80/20	0.0012
217675	NORTHASP1_C	0.0015	80/20	0.0015
217688	NORTHASP2_C	0.0015	80/20	0.0015
218318	LINDEN_26	0.7812	80/20	0.7812
218344	TOSCO_G6	0.7704	80/20	0.7704
218376	ALDENE_AB	0.4358	80/20	0.4358
218379	BRUNSWCK_AB	0.0933	80/20	0.0933
218418	LINDEN_G5	2.0365	80/20	2.0365
218419	LINDEN_G6	2.0365	80/20	2.0365
218423	LINDEN_G21	5.3869	80/20	5.3869
218424	LINDEN_G22	5.3869	80/20	5.3869
218425	LINDEN_G12	5.8766	80/20	5.8766
218426	LINDEN_2ST	9.3046	80/20	9.3046
218428	ETC SOLAR C	0.0028	80/20	0.0028
218435	LINDEN_1GT	3.7597	80/20	3.7597
218436	LINDEN_G11	6.4542	80/20	6.4542
218438	BLK ROCK C	0.0082	80/20	0.0082
218440	SUMMTASSOC C	0.0106	80/20	0.0106
218449	ALDENESP1_C	0.0066	80/20	0.0066
218508	ALDENESP2_C	0.0066	80/20	0.0066
218545	WOODBRS1_C	0.0025	80/20	0.0025
218554	WOODBRS2_C	0.0021	80/20	0.0021
218558	WOODBRS3_C	0.0021	80/20	0.0021
218584	BRUNSWSP1_C	0.0018	80/20	0.0018
218591	BRUNSWSP2_C	0.0018	80/20	0.0018
218612	MIDDL2SP1_C	0.0007	80/20	0.0007
218626	MIDDL2SP2_C	0.0007	80/20	0.0007
218636	METUCHSP1_C	0.0031	80/20	0.0031
218655	METUCHSP2_C	0.0031	80/20	0.0031
218662	MINUESP1_C	0.0012	80/20	0.0012
218664	MINUESP2_C	0.0015	80/20	0.0015
218666	NWKS WTSP1_C	0.0021	80/20	0.0021
218674	WARINASP1_C	0.0089	80/20	0.0089

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218676	WARINASP2_C	0.0090	80/20	0.0090
218726	LINSOLAR C	0.0183	80/20	0.0183
218728	CNTRALGAS1 C	0.0164	80/20	0.0164
218730	CNTRALGAS2 C	0.0146	80/20	0.0146
219001	SEWAREN7GT	3.6184	80/20	3.6184
219002	SEWAREN7ST	5.4276	80/20	5.4276
219035	LINDEN_G8	1.2741	80/20	1.2741
219036	LINDEN_G7	1.2741	80/20	1.2741
219612	MATRIX C	0.0098	80/20	0.0098
219882	V2-009 C2	0.0171	80/20	0.0171
219884	V2-009 C1	0.0086	80/20	0.0086
913101	Y1-026	6.1921	80/20	6.1921
917001	Z2-000 C O1	53.8075	80/20	53.8075
917011	Z2-002 C	1.7630	80/20	1.7630
920031	AA2-099 C	0.5687	80/20	0.5687
924131	AB2-057 C	0.0394	80/20	0.0394
930901	AB1-139 C	0.0346	80/20	0.0346
938281	AE1-041 C	0.0028	80/20	0.0028
938601	AE1-081 C	-0.0533	Adder	-0.06
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	123.6360	80/20	123.6360
961231	AF2-414 O1	17.6550	80/20	17.6550
NEWTON	NEWTON	0.1622	Confirmed LTF	0.1622
FARMERCITY	FARMERCITY	0.0084	Confirmed LTF	0.0084
VFT	VFT	152.4393	Confirmed LTF	152.4393
CALDERWOOD	CALDERWOOD	0.0666	Confirmed LTF	0.0666
PRAIRIE	PRAIRIE	0.3849	Confirmed LTF	0.3849
CHEOAH	CHEOAH	0.0666	Confirmed LTF	0.0666
EDWARDS	EDWARDS	0.0539	Confirmed LTF	0.0539
TILTON	TILTON	0.0970	Confirmed LTF	0.0970
MADISON	MADISON	0.0081	Confirmed LTF	0.0081
GIBSON	GIBSON	0.0830	Confirmed LTF	0.0830
BLUEG	BLUEG	0.2639	Confirmed LTF	0.2639
TRIMBLE	TRIMBLE	0.0846	Confirmed LTF	0.0846
CATAWBA	CATAWBA	0.0416	Confirmed LTF	0.0416

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
100377746	218300	LINDEN	PSE&G	217958	LINDEN_345	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	100.57	111.87	DC	107.31

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

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

9.6.5 Index 5

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378747	218300	LINDEN	PSE&G	219046	TOSCO_3	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	1081.0	118.06	119.53	DC	34.37

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
207411	AA2-060 BAT	0.5308	Merchant Transmission	0.5308
207414	AA2-061 BAT	0.7078	Merchant Transmission	0.7078
217082	WEATEXAS E	0.1041	Adder	0.12
217196	RE CRAN E	0.2186	Adder	0.26
217198	V3-058 E	0.1626	Adder	0.19
217199	V3-059 E	0.1626	Adder	0.19
217212	AMBOY SO E	0.2842	50/50	0.2842
217213	AMBOY SO C	0.0310	50/50	0.0310
217218	BAYON2SP2_E	0.0054	Adder	0.01
217254	BAYON2SP4_E	0.0040	Adder	0.0
217255	BAYON2SP3_E	0.0067	Adder	0.01
217572	MARIONSP1_E	0.0176	Adder	0.02
217576	MARIONSP2_E	0.0176	Adder	0.02
217583	MARIONSP3_E	0.0176	Adder	0.02
217680	NORTHASP1_E	0.0224	Adder	0.03
217689	NORTHASP2_E	0.0224	Adder	0.03
218318	LINDEN_26	1.3950	50/50	1.3950
218418	LINDEN_G5	3.5318	50/50	3.5318
218419	LINDEN_G6	3.5318	50/50	3.5318
218423	LINDEN_G21	9.3419	50/50	9.3419
218424	LINDEN_G22	9.3419	50/50	9.3419
218425	LINDEN_G12	10.1912	50/50	10.1912
218426	LINDEN_2ST	16.1360	50/50	16.1360
218429	ETC SOLAR E	0.0733	Adder	0.09
218435	LINDEN_1GT	6.7140	50/50	6.7140
218436	LINDEN_G11	11.5257	50/50	11.5257
218437	BLK ROCK E	0.0991	Adder	0.12
218439	SUMMTASSOC E	0.1680	Adder	0.2
218545	WOODBRS1_C	0.0055	50/50	0.0055
218549	WOODBRS1_E	0.0519	50/50	0.0519
218554	WOODBRS2_C	0.0046	50/50	0.0046
218555	WOODBRS2_E	0.0435	50/50	0.0435
218558	WOODBRS3_C	0.0046	50/50	0.0046
218559	WOODBRS3_E	0.0433	50/50	0.0433
218585	BRUNSWSP1_E	0.0228	Adder	0.03
218608	BRUNSWSP2_E	0.0228	Adder	0.03
218625	MIDDL2SP1_E	0.0092	Adder	0.01
218627	MIDDL2SP2_E	0.0092	Adder	0.01
218636	METUCHSP1_C	0.0071	50/50	0.0071
218640	METUCHSP1_E	0.0573	Adder	0.07
218655	METUCHSP2_C	0.0071	50/50	0.0071
218659	METUCHSP2_E	0.0573	Adder	0.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218662	MINUESP1_C	0.0022	50/50	0.0022
218663	MINUESP1_E	0.0210	50/50	0.0210
218664	MINUESP2_C	0.0025	50/50	0.0025
218665	MINUESP2_E	0.0238	50/50	0.0238
218667	NWKS WTSP1_E	0.0313	Adder	0.04
218672	KENILWRTH E	-2.5343	Adder	-2.98
218726	LINSOLAR C	0.0326	50/50	0.0326
218727	LINSOLAR E	0.3084	50/50	0.3084
218729	CNTRALGAS1 E	0.1927	Adder	0.23
218731	CNTRALGAS2 E	0.1774	Adder	0.21
219001	SEWAREN7GT	7.5268	50/50	7.5268
219002	SEWAREN7ST	11.2903	50/50	11.2903
219035	LINDEN_G8	2.2753	50/50	2.2753
219036	LINDEN_G7	2.2753	50/50	2.2753
219881	V2-009 E2	0.2172	Adder	0.26
917001	Z2-000 C O1	105.0414	Adder	123.58
917002	Z2-000 E O1	0.6262	Adder	0.74
917011	Z2-002 C	3.0573	50/50	3.0573
917521	SEWARENG7E1	2.7862	50/50	2.7862
917522	SEWARENG7E2	2.7862	50/50	2.7862
920031	AA2-099 C	1.1830	50/50	1.1830
924132	AB2-057 E	0.5039	Adder	0.59
930092	AB1-021 E	-0.1724	Adder	-0.2
930901	AB1-139 C	0.0794	50/50	0.0794
930902	AB1-139 E	0.6418	Adder	0.76
933332	AC2-145 E (Suspended)	-0.0173	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0204	Merchant Transmission	0.0204
937513	AD2-210 BAT (Suspended)	0.2246	Merchant Transmission	0.2246
938281	AE1-041 C	0.0064	50/50	0.0064
938282	AE1-041 E	0.1409	Adder	0.17
938601	AE1-081 C	-0.0726	Adder	-0.09
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	257.1840	50/50	257.1840
942253	AE2-237 BAT	9.6193	Merchant Transmission	9.6193
943483	AF1-019 BAT	1.7636	Merchant Transmission	1.7636
946603	AF1-324 BAT	2.0858	Merchant Transmission	2.0858
946613	AF1-325 BAT	1.7856	Merchant Transmission	1.7856
961231	AF2-414 O1	15.4855	Adder	34.37
961512	AF1-442 NFTW	4.0010	Merchant Transmission	4.0010
961522	AF1-443 NFTW	4.0023	Merchant Transmission	4.0023
NEWTON	NEWTON	0.2267	Confirmed LTF	0.2267
FARMERCITY	FARMERCITY	0.0117	Confirmed LTF	0.0117
CALDERWOOD	CALDERWOOD	0.0929	Confirmed LTF	0.0929
PRAIRIE	PRAIRIE	0.5373	Confirmed LTF	0.5373
O-066	O-066	26.2886	Confirmed LTF	26.2886
CHEOAH	CHEOAH	0.0936	Confirmed LTF	0.0936
EDWARDS	EDWARDS	0.0753	Confirmed LTF	0.0753
TILTON	TILTON	0.1355	Confirmed LTF	0.1355
G-007	G-007	2.1351	Confirmed LTF	2.1351
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
GIBSON	GIBSON	0.1158	Confirmed LTF	0.1158
BLUEG	BLUEG	0.3680	Confirmed LTF	0.3680

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
<b>TRIMBLE</b>	TRIMBLE	0.1180	Confirmed LTF	0.1180
<b>CATAWBA</b>	CATAWBA	0.0585	Confirmed LTF	0.0585

9.6.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378096	218306	DEANS	PSE&G	218304	BRUNSWCK	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	118.22	121.62	DC	36.48

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

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
<b>TRIMBLE</b>	TRIMBLE	0.1085	Confirmed LTF	0.1085
<b>CATAWBA</b>	CATAWBA	0.0822	Confirmed LTF	0.0822

9.6.7 Index 7

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378129	218307	ALDENE_2	PSE&G	218430	STANTER_1	PSE&G	1	PS_P1-2_G-2285_LT/* ALDENE TO SPRINGFIELD ROAD	single	558.0	113.16	116.11	DC	16.47

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217081	WEATEXAS C	0.0067	80/20	0.0067
217197	RE CRAN C	0.0182	80/20	0.0182
217213	AMBOY SO C	0.0152	80/20	0.0152
217217	BAYON2SP2_C	0.0003	80/20	0.0003
217250	BAYON2SP4_C	0.0003	80/20	0.0003
217571	MARIONSP1_C	0.0011	80/20	0.0011
217575	MARIONSP2_C	0.0011	80/20	0.0011
217580	MARIONSP3_C	0.0011	80/20	0.0011
217675	NORTHASP1_C	0.0014	80/20	0.0014
217688	NORTHASP2_C	0.0014	80/20	0.0014
218318	LINDEN_26	0.8032	80/20	0.8032
218344	TOSCO_G6	0.8248	80/20	0.8248
218376	ALDENE_AB	0.4713	80/20	0.4713
218379	BRUNSWCK_AB	0.0990	80/20	0.0990
218418	LINDEN_G5	2.1707	80/20	2.1707
218419	LINDEN_G6	2.1707	80/20	2.1707
218423	LINDEN_G21	5.7418	80/20	5.7418
218424	LINDEN_G22	5.7418	80/20	5.7418
218425	LINDEN_G12	6.2638	80/20	6.2638
218426	LINDEN_2ST	9.9177	80/20	9.9177
218428	ETC SOLAR C	0.0030	80/20	0.0030
218435	LINDEN_1GT	3.8656	80/20	3.8656
218436	LINDEN_G11	6.6359	80/20	6.6359
218438	BLK ROCK C	0.0086	80/20	0.0086
218440	SUMMTASSOC C	0.0113	80/20	0.0113
218449	ALDENESP1_C	0.0071	80/20	0.0071
218508	ALDENESP2_C	0.0071	80/20	0.0071
218545	WOODBRS1_C	0.0027	80/20	0.0027
218554	WOODBRS2_C	0.0023	80/20	0.0023
218558	WOODBRS3_C	0.0023	80/20	0.0023
218584	BRUNSWSP1_C	0.0019	80/20	0.0019
218591	BRUNSWSP2_C	0.0019	80/20	0.0019
218612	MIDDL2SP1_C	0.0008	80/20	0.0008
218626	MIDDL2SP2_C	0.0008	80/20	0.0008
218636	METUCHSP1_C	0.0033	80/20	0.0033
218655	METUCHSP2_C	0.0033	80/20	0.0033
218662	MINUESP1_C	0.0013	80/20	0.0013
218664	MINUESP2_C	0.0016	80/20	0.0016
218666	NWKSWTSP1_C	0.0020	80/20	0.0020
218674	WARINASP1_C	0.0096	80/20	0.0096

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218676	WARINASP2_C	0.0097	80/20	0.0097
218726	LINSOLAR C	0.0188	80/20	0.0188
218728	CNTRALGAS1 C	0.0176	80/20	0.0176
218730	CNTRALGAS2 C	0.0155	80/20	0.0155
219001	SEWAREN7GT	3.8611	80/20	3.8611
219002	SEWAREN7ST	5.7916	80/20	5.7916
219035	LINDEN_G8	1.3100	80/20	1.3100
219036	LINDEN_G7	1.3100	80/20	1.3100
219612	MATRIX C	0.0103	80/20	0.0103
219878	V2-009 E4	0.1194	80/20	0.1194
219879	V2-009 C4	0.0126	80/20	0.0126
219880	V2-009 C3	0.0210	80/20	0.0210
219882	V2-009 C2	0.0181	80/20	0.0181
219884	V2-009 C1	0.0091	80/20	0.0091
913101	Y1-026	6.6298	80/20	6.6298
917001	Z2-000 C O1	57.4644	80/20	57.4644
917011	Z2-002 C	1.8791	80/20	1.8791
920031	AA2-099 C	0.6068	80/20	0.6068
924131	AB2-057 C	0.0418	80/20	0.0418
930901	AB1-139 C	0.0369	80/20	0.0369
938281	AE1-041 C	0.0030	80/20	0.0030
938601	AE1-081 C	-0.0554	Adder	-0.07
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	131.9280	80/20	131.9280
961231	AF2-414 O1	16.4730	80/20	16.4730
NEWTON	NEWTON	0.1515	Confirmed LTF	0.1515
FARMERCITY	FARMERCITY	0.0078	Confirmed LTF	0.0078
VFT	VFT	163.4172	Confirmed LTF	163.4172
CALDERWOOD	CALDERWOOD	0.0611	Confirmed LTF	0.0611
PRAIRIE	PRAIRIE	0.3565	Confirmed LTF	0.3565
CHEOAH	CHEOAH	0.0611	Confirmed LTF	0.0611
EDWARDS	EDWARDS	0.0504	Confirmed LTF	0.0504
TILTON	TILTON	0.0901	Confirmed LTF	0.0901
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0775	Confirmed LTF	0.0775
BLUEG	BLUEG	0.2465	Confirmed LTF	0.2465
TRIMBLE	TRIMBLE	0.0790	Confirmed LTF	0.0790
CATAWBA	CATAWBA	0.0374	Confirmed LTF	0.0374

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
100378689	218311	SEWAREN	PSE&G	218353	MINUEST_R	PSE&G	1	PS_P7-1_H2286+W2249_L T	tower	887.0	120.4	128.72	DC	73.82

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

9.6.9 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
100378082	218343	TOSCO_2	PSE&G	218441	VFT_2	PSE&G	1	Base Case	single	936.0	119.4	124.25	DC	45.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
217065	ECRRF_1	0.3424	80/20	0.3424
217081	WEATEXAS C	0.0161	80/20	0.0161
217118	BERGEN 1 ST	1.7976	80/20	1.7976
217209	CENTRL HS C	0.0041	80/20	0.0041
217211	CAMDEN ST C	0.0022	80/20	0.0022
217213	AMBOY SO C	0.0230	80/20	0.0230
217217	BAYON2SP2_C	0.0008	80/20	0.0008
217250	BAYON2SP4_C	0.0006	80/20	0.0006
217323	ECRRF_2	0.3412	80/20	0.3412
217571	MARIONSP1_C	0.0028	80/20	0.0028
217575	MARIONSP2_C	0.0028	80/20	0.0028
217580	MARIONSP3_C	0.0028	80/20	0.0028
217675	NORTHASP1_C	0.0034	80/20	0.0034
217688	NORTHASP2_C	0.0034	80/20	0.0034
217915	BERGEN_11	1.0208	80/20	1.0208
217916	BERGEN_12	1.0208	80/20	1.0208
217917	BERGEN_13	1.0208	80/20	1.0208
217918	BERGEN_14	1.0208	80/20	1.0208
218318	LINDEN_26	1.5698	80/20	1.5698
218344	TOSCO_G6	1.4069	80/20	1.4069
218379	BRUNSWCK_AB	0.0803	80/20	0.0803
218418	LINDEN_G5	3.7084	80/20	3.7084
218419	LINDEN_G6	3.7084	80/20	3.7084
218423	LINDEN_G21	9.8092	80/20	9.8092
218424	LINDEN_G22	9.8092	80/20	9.8092
218425	LINDEN_G12	10.7010	80/20	10.7010
218426	LINDEN_2ST	16.9432	80/20	16.9432
218428	ETC SOLAR C	0.0042	80/20	0.0042
218435	LINDEN_1GT	7.5554	80/20	7.5554
218436	LINDEN_G11	12.9701	80/20	12.9701
218440	SUMMTASSOC C	0.0131	80/20	0.0131
218545	WOODBRSPP1_C	0.0041	80/20	0.0041
218554	WOODBRSPP2_C	0.0034	80/20	0.0034
218558	WOODBRSPP3_C	0.0034	80/20	0.0034
218584	BRUNSWSP1_C	0.0015	80/20	0.0015
218591	BRUNSWSP2_C	0.0015	80/20	0.0015
218612	MIDDL2SP1_C	0.0006	80/20	0.0006
218626	MIDDL2SP2_C	0.0006	80/20	0.0006
218636	METUCHSP1_C	0.0048	80/20	0.0048
218655	METUCHSP2_C	0.0048	80/20	0.0048
218662	MINUESP1_C	0.0021	80/20	0.0021
218664	MINUESP2_C	0.0026	80/20	0.0026

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218666	NWKS WTSP1_C	0.0048	80/20	0.0048
218726	LINSOLAR C	0.0367	80/20	0.0367
218728	CNTRAL GAS1 C	0.0203	80/20	0.0203
218730	CNTRAL GAS2 C	0.0190	80/20	0.0190
219001	SEWAREN7GT	5.9763	80/20	5.9763
219002	SEWAREN7ST	8.9645	80/20	8.9645
219035	LINDEN_G8	2.5605	80/20	2.5605
219036	LINDEN_G7	2.5605	80/20	2.5605
913101	Y1-026	11.3084	80/20	11.3084
917001	Z2-000 C O1	83.1839	80/20	83.1839
917011	Z2-002 C	3.2103	80/20	3.2103
920031	AA2-099 C	0.9393	80/20	0.9393
924131	AB2-057 C	0.0339	80/20	0.0339
924431	AB2-092	2.6733	80/20	2.6733
930901	AB1-139 C	0.0535	80/20	0.0535
938281	AE1-041 C	0.0043	80/20	0.0043
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	204.2040	80/20	204.2040
961231	AF2-414 O1	45.4260	80/20	45.4260
961241	AF2-415 O1	8.0235	80/20	8.0235
NEWTON	NEWTON	0.4255	Confirmed LTF	0.4255
FARMERCITY	FARMERCITY	0.0221	Confirmed LTF	0.0221
CALDERWOOD	CALDERWOOD	0.1908	Confirmed LTF	0.1908
PRAIRIE	PRAIRIE	1.0203	Confirmed LTF	1.0203
CHEOAH	CHEOAH	0.1922	Confirmed LTF	0.1922
EDWARDS	EDWARDS	0.1393	Confirmed LTF	0.1393
TILTON	TILTON	0.2507	Confirmed LTF	0.2507
MADISON	MADISON	0.0060	Confirmed LTF	0.0060
GIBSON	GIBSON	0.2168	Confirmed LTF	0.2168
BLUEG	BLUEG	0.6892	Confirmed LTF	0.6892
TRIMBLE	TRIMBLE	0.2209	Confirmed LTF	0.2209
CATAWBA	CATAWBA	0.1309	Confirmed LTF	0.1309

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
100377761	218345	ALDENE_6	PSE&G	216911	SPRINGRD_3	PSE&G	1	PS_P2-3_STAN_1-2	breaker	699.0	109.64	111.14	DC	22.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206638	28PEAPACK	-0.2506	Adder	-0.29
206679	28M&M S721	-0.6327	Adder	-0.74
207411	AA2-060 BAT	0.4915	Merchant Transmission	0.4915
207414	AA2-061 BAT	0.6553	Merchant Transmission	0.6553
217082	WEATEXAS E	0.0715	Adder	0.08
217198	V3-058 E	0.1310	Adder	0.15
217199	V3-059 E	0.1310	Adder	0.15
217212	AMBOY SO E	0.1448	Adder	0.17
217218	BAYON2SP2_E	0.0037	Adder	0.0
217254	BAYON2SP4_E	0.0027	Adder	0.0
217255	BAYON2SP3_E	0.0046	Adder	0.01
217572	MARIONSP1_E	0.0120	Adder	0.01
217576	MARIONSP2_E	0.0120	Adder	0.01
217583	MARIONSP3_E	0.0120	Adder	0.01
217680	NORTHASP1_E	0.0154	Adder	0.02
217689	NORTHASP2_E	0.0154	Adder	0.02
218344	TOSCO_G6	1.0053	50/50	1.0053
218376	ALDENE_AB	0.5642	50/50	0.5642
218418	LINDEN_G5	2.6551	50/50	2.6551
218419	LINDEN_G6	2.6551	50/50	2.6551
218423	LINDEN_G21	7.0231	50/50	7.0231
218424	LINDEN_G22	7.0231	50/50	7.0231
218425	LINDEN_G12	7.6616	50/50	7.6616
218426	LINDEN_2ST	12.1309	50/50	12.1309
218429	ETC SOLAR E	0.0420	Adder	0.05
218435	LINDEN_1GT	4.8765	50/50	4.8765
218436	LINDEN_G11	8.3714	50/50	8.3714
218439	SUMMTASSOC E	0.1105	Adder	0.13
218449	ALDENESP1_C	0.0087	50/50	0.0087
218450	ALDENESP1_E	0.0818	50/50	0.0818
218508	ALDENESP2_C	0.0085	50/50	0.0085
218513	ALDENESP2_E	0.0808	50/50	0.0808
218549	WOODBRS1_E	0.0265	Adder	0.03
218555	WOODBRS2_E	0.0222	Adder	0.03
218559	WOODBRS3_E	0.0221	Adder	0.03
218585	BRUNSWSP1_E	0.0184	Adder	0.02
218608	BRUNSWSP2_E	0.0184	Adder	0.02
218625	MIDDL2SP1_E	0.0074	Adder	0.01
218627	MIDDL2SP2_E	0.0074	Adder	0.01
218640	METUCHSP1_E	0.0324	Adder	0.04
218659	METUCHSP2_E	0.0324	Adder	0.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
218662	MINUESP1_C	0.0015	50/50	0.0015
218663	MINUESP1_E	0.0147	50/50	0.0147
218664	MINUESP2_C	0.0019	50/50	0.0019
218665	MINUESP2_E	0.0182	50/50	0.0182
218667	NWKS WTSP1_E	0.0216	Adder	0.03
218672	KENILWRTH E	3.9645	50/50	3.9645
218674	WARINASP1_C	0.0116	50/50	0.0116
218675	WARINASP1_E	0.1101	50/50	0.1101
218676	WARINASP2_C	0.0117	50/50	0.0117
218677	WARINASP2_E	0.1111	50/50	0.1111
218727	LINSOLAR E	0.1904	Adder	0.22
218729	CNTRALGAS1 E	0.1268	Adder	0.15
218731	CNTRALGAS2 E	0.1122	Adder	0.13
219035	LINDEN_G8	1.6526	50/50	1.6526
219036	LINDEN_G7	1.6526	50/50	1.6526
913101	Y1-026	8.0804	50/50	8.0804
917001	Z2-000 C O1	59.4875	Adder	69.99
917002	Z2-000 E O1	0.3546	Adder	0.42
917011	Z2-002 C	2.2985	50/50	2.2985
917521	SEWARENG7E1	1.4820	Adder	1.74
917522	SEWARENG7E2	1.4820	Adder	1.74
924132	AB2-057 E	0.4061	Adder	0.48
930092	AB1-021 E	-0.1616	Adder	-0.19
930902	AB1-139 E	0.3635	Adder	0.43
933332	AC2-145 E (Suspended)	-0.0160	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0189	Merchant Transmission	0.0189
937513	AD2-210 BAT (Suspended)	0.2080	Merchant Transmission	0.2080
938282	AE1-041 E	0.0798	Adder	0.09
938413	AE1-060 BAT	1.4892	Merchant Transmission	1.4892
938601	AE1-081 C	-0.0673	Adder	-0.08
940301	AE2-014 FTIR (Withdrawn : 01/24/2020)	160.9440	Merchant Transmission	160.9440
942253	AE2-237 BAT	8.9088	Merchant Transmission	8.9088
943483	AF1-019 BAT	1.6326	Merchant Transmission	1.6326
946603	AF1-324 BAT	1.9314	Merchant Transmission	1.9314
946613	AF1-325 BAT	1.6536	Merchant Transmission	1.6536
961231	AF2-414 O1	10.2227	Adder	22.69
961512	AF1-442 NFTW	3.7054	Merchant Transmission	3.7054
961522	AF1-443 NFTW	3.7067	Merchant Transmission	3.7067
NEWTON	NEWTON	0.2074	Confirmed LTF	0.2074
FARMERCITY	FARMERCITY	0.0107	Confirmed LTF	0.0107
VFT	VFT	198.9761	Confirmed LTF	198.9761
CALDERWOOD	CALDERWOOD	0.0850	Confirmed LTF	0.0850
PRAIRIE	PRAIRIE	0.4882	Confirmed LTF	0.4882
O-066	O-066	31.8864	Confirmed LTF	31.8864
CHEOAH	CHEOAH	0.0851	Confirmed LTF	0.0851
EDWARDS	EDWARDS	0.0686	Confirmed LTF	0.0686
TILTON	TILTON	0.1235	Confirmed LTF	0.1235
G-007	G-007	2.0602	Confirmed LTF	2.0602
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
GIBSON	GIBSON	0.1059	Confirmed LTF	0.1059
BLUEG	BLUEG	0.3368	Confirmed LTF	0.3368

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
<b>TRIMBLE</b>	TRIMBLE	0.1080	Confirmed LTF	0.1080
<b>CATAWBA</b>	CATAWBA	0.0532	Confirmed LTF	0.0532

9.6.11 Index 11

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
100378697	218352	MDWRD_R	PSE&G	218304	BRUNSWC K	PSE&G	1	PS_P7-1_D22204+S2219_L T	tower	885.0	127.18	130.11	DC	56.75

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

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
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

9.6.12 Index 12

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378702	218353	MINUEST_R	PSE&G	218300	LINDEN	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	117.62	125.94	DC	73.82

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

9.6.13 Index 13

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378684	218357	PRSSNAV_R	PSE&G	218352	MDWRD_R	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	129.56	132.49	DC	56.76

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

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
<b>961251</b>	AF2-416	0.7097	Adder	1.58
<b>NEWTON</b>	NEWTON	0.5405	Confirmed LTF	0.5405
<b>FARMERCITY</b>	FARMERCITY	0.0283	Confirmed LTF	0.0283
<b>G-007A</b>	G-007A	0.2086	Confirmed LTF	0.2086
<b>VFT</b>	VFT	139.4361	Confirmed LTF	139.4361
<b>CALDERWOOD</b>	CALDERWOOD	0.2644	Confirmed LTF	0.2644
<b>PRAIRIE</b>	PRAIRIE	1.3096	Confirmed LTF	1.3096
<b>CHEOAH</b>	CHEOAH	0.2668	Confirmed LTF	0.2668
<b>EDWARDS</b>	EDWARDS	0.1746	Confirmed LTF	0.1746
<b>TILTON</b>	TILTON	0.3144	Confirmed LTF	0.3144
<b>GIBSON</b>	GIBSON	0.2741	Confirmed LTF	0.2741
<b>BLUEG</b>	BLUEG	0.8715	Confirmed LTF	0.8715
<b>TRIMBLE</b>	TRIMBLE	0.2794	Confirmed LTF	0.2794
<b>CATAWBA</b>	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 LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
100378663	218469	METUCHE N	PSE&G	218357	PRSNV_ R	PSE&G	1	PS_P7-1_D2204+S2219_L T	tower	885.0	132.49	135.42	DC	56.76

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 O1	25.5704	Adder	56.76
961241	AF2-415 O1	11.2864	Adder	25.05
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

## 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

<b>Queue Number</b>	<b>Project Name</b>	<b>Status</b>
<b>AF1-325</b>	Sparta-Woodruff's Gap 34.5 kV	Active
<b>AF1-327</b>	Pohatcong-Newburgh 34.5 kV	Active
<b>AF1-328</b>	Hackettstown-Pohatcong 34.5 kV	Active
<b>AF1-442</b>	N/A	N/A
<b>AF1-443</b>	N/A	N/A
<b>AF2-414</b>	Bergen 345 kV	Active
<b>AF2-415</b>	Bergen 138 kV	Active
<b>AF2-416</b>	Bergen 26 kV	Active
<b>V2-009</b>	Plainsboro & Devils Brook 13kV	Under Construction
<b>V3-058</b>	Brunswick 26.4kV	In Service
<b>V3-059</b>	Brunswick 26.4kV	In Service
<b>Y1-026</b>	Tosco 230kV	In Service
<b>Z2-000</b>	N/A	N/A
<b>Z2-002</b>	Linden 230kV	In Service

## 9.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
PS_P1-2_O-2320	CONTINGENCY 'PS_P1-2_O-2320' DISCONNECT BUS 218307 /* ALDENE TO STANLEY TERRACE DISCONNECT BUS 218430 /* ALDENE BUS SECTION 2 /* STANLEY TERRACE BUS SECTION 1 END
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_Z-2331_LT	CONTINGENCY 'PS_P1-2_Z-2331_LT' DISCONNECT BUS 218352 /* METUCHEN_BRUNSWICK /* 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 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_P1-2_Z-2331	CONTINGENCY 'PS_P1-2_Z-2331' DISCONNECT BUS 218352 /* METUCHEN_BRUNSWICK /* 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_P2-3_STAN_1-2	CONTINGENCY 'PS_P2-3_STAN_1-2' DISCONNECT BUS 218307 /* ALDENE BUS SECTION 2 DISCONNECT BUS 218430 /* STANLEY TERRACE BUS SECTION 1 DISCONNECT BUS 217252 /* STAN TERRACE SECTION 2 REMOVE CLOSE LINE FROM BUS 218511 TO BUS 218512 CKT Z /* STANLEY TERRACE 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
<b>PS_P1-2_H-2286</b>	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
<b>PS_P7-1_G2207+R2218</b>	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

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_S-2297	CONTINGENCY 'PS_P1-2_S-2297' /* WILLIAMS PIPLINE TO ROSELAND TRIP LINE FROM BUS 216950 TO BUS 217870 CKT 1 /* PIPELINE TO ROSELAND 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

Contingency Name	Contingency Definition
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	
PS_P1-2_G-2285/* ALDENE TO SPRINGFIELD ROAD	CONTINGENCY 'PS_P1-2_G-2285/* ALDENE TO SPRINGFIELD ROAD' DISCONNECT BUS 218345 /* ALDENE BUS SECTION 6 DISCONNECT BUS 216911 /* SPRINGFIELD RD BUS SECTION2 CLOSE LINE FROM BUS 218374 TO BUS 218375 CKT Z /* ALDENE 10 CLOSE LINE FROM BUS 216926 TO BUS 216927 CKT Z/* SPRING LOAD END
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

Contingency Name	Contingency Definition
<b>PS_P1-2_G-2285_LT/* ALDENE TO SPRINGFIELD ROAD</b>	CONTINGENCY 'PS_P1-2_G-2285_LT/* ALDENE TO SPRINGFIELD ROAD' DISCONNECT BUS 218345 /* ALDENE BUS SECTION 6 DISCONNECT BUS 216911 /* SPRINGFIELD RD BUS SECTION2 CLOSE LINE FROM BUS 218374 TO BUS 218375 CKT Z /* ALDENE MOVE 8 MW LOAD FROM BUS 218375 TO BUS 218416 /* INTERSTATION TIE TRANSFER LOAD FROM ALDENE TO WESTFIELD T2 MOVE 8 MW LOAD FROM BUS 218374 TO BUS 218380 /* INTERSTATION TIE TRANSFER LOAD FROM ALDENE TO FANWOOD T2 MOVE 8 MW LOAD FROM BUS 218375 TO BUS 216932 /* INTERSTATION TIE TRANSFER LOAD FROM ALDENE TO DORMPL T2 MOVE 8 MW LOAD FROM BUS 218374 TO BUS 218410 /* INTERSTATION TIE TRANSFER LOAD FROM ALDENE TO WARINICO T1 CLOSE LINE FROM BUS 216926 TO BUS 216927 CKT Z /* SPRING LOAD MOVE 8 MW LOAD FROM BUS 216927 TO BUS 218380 /* INTERSTATION TIE TRANSFER LOAD FROM SPRINGRD TO FANWOOD T2 MOVE 8 MW LOAD FROM BUS 216926 TO BUS 218381 /* INTERSTATION TIE TRANSFER LOAD FROM SPRINGRD TO FANWOOD T1 MOVE 8 MW LOAD FROM BUS 216926 TO BUS 216930 /* INTERSTATION TIE TRANSFER LOAD FROM SPRINGRD TO DORMPL T1 MOVE 8 MW LOAD FROM BUS 216926 TO BUS 216931 /* INTERSTATION TIE TRANSFER LOAD FROM SPRINGRD TO DORMPL T3 MOVE 8 MW LOAD FROM BUS 216927 TO BUS 216931 /* INTERSTATION TIE TRANSFER LOAD FROM SPRINGRD TO DORMPL 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 AF2-414 was evaluated as a 300.0 MW (Capacity 300.0 MW) injection at the **Bergen 230 kV** substation in the PSEG area. Project AF2-414 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-414 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

### 11.1 Generation Deliverability

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

None

### 11.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378792	218355	NEWDOVR_H	230.0	PSE&G	218320	FANWOOD_1	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	96.61	101.08	DC	39.58
100378778	218469	METUCHEN	230.0	PSE&G	218355	NEWDOVR_H	230.0	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	99.74	104.21	DC	39.58

### 11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100377746	218300	LINDEN	230.0	PSE&G	217958	LINDEN_345	345.0	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	100.57	106.41	DC	55.42
100378096	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	118.22	120.95	DC	29.05
100378098	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331	single	887.0	116.73	119.47	DC	29.05
100378689	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	120.4	126.62	DC	55.23
100378690	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	887.0	112.44	118.92	DC	57.46

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
100377737	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	117.62	119.87	DC	43.52
100378072	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	120.67	125.34	DC	49.14
100378073	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	117.48	122.14	DC	49.14
100378074	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	single	731.0	117.67	122.14	DC	38.92
100378697	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	127.18	129.63	DC	47.26
100378702	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	117.62	123.84	DC	55.23
100378703	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P7-1_G2207+H2286_LT	tower	887.0	110.51	116.99	DC	57.46
100377716	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P2-3_DEAN_9-10	breaker	885.0	120.73	122.98	DC	43.52
100378050	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	123.72	128.38	DC	49.15
100378051	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	123.29	127.95	DC	49.15
100378052	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	single	731.0	121.53	126.0	DC	38.92
100378684	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	129.56	132.01	DC	47.26
100378009	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219	single	885.0	130.28	134.94	DC	49.15
100378010	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219_LT	single	885.0	126.24	130.91	DC	49.15
100378011	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	Base Case	single	731.0	125.51	129.98	DC	38.92
100378663	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	132.49	134.93	DC	47.26

#### 11.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378146	216950	ROSELAND	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_S-2297	operation	887.0	98.43	110.15	DC	103.96
100378163	217870	WILPIPE	230.0	PSE&G	216915	CDRGV	230.0	PSE&G	1	PS_P1-2_Y-2277	operation	887.0	95.96	107.57	DC	102.94
100378097	218306	DEANS	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_Z-2331_LT	operation	887.0	119.53	121.03	DC	29.05

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
100378091	218311	SEWAREN	230.0	PSE&G	218353	MINUEST_R	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	113.63	119.06	DC	48.18
100378077	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	PS_P1-2_S-2219_LT	operation	885.0	116.35	118.89	DC	49.14
100378080	218352	MDWRD_R	230.0	PSE&G	218304	BRUNSWCK	230.0	PSE&G	1	Base Case	operation	731.0	113.32	115.76	DC	38.92
100378105	218353	MINUEST_R	230.0	PSE&G	218300	LINDEN	230.0	PSE&G	1	PS_P1-2_H-2286	operation	887.0	110.85	116.28	DC	48.18
100378055	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	119.11	121.65	DC	49.15
100378058	218357	PRSNV_R	230.0	PSE&G	218352	MDWRD_R	230.0	PSE&G	1	Base Case	operation	731.0	119.46	121.9	DC	38.92
100378012	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	PS_P1-2_S-2219	operation	885.0	125.64	128.19	DC	49.15
100378017	218469	METUCHEN	230.0	PSE&G	218357	PRSNV_R	230.0	PSE&G	1	Base Case	operation	731.0	123.44	125.88	DC	38.92
100378194	218469	METUCHEN	230.0	PSE&G	218355	NEWDVVR_H	230.0	PSE&G	1	PS_P1-2_R-2218	operation	885.0	96.23	100.03	DC	33.64

## 11.5 Flow Gate Details - Secondary POI

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

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### 11.5.1 Index 1

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
10037879 2	21835 5	NEWDQVR_	PSE&G	21832 0	FANWOOD_	PSE&G	1	PS_P7- 1_G2207+R221 8	tower	885.0	96.61	101.08	DC	39.58

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	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

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

## 11.5.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378778	218469	METUCHEN	PSE&G	218355	NEWDOVR_H	PSE&G	1	PS_P7-1_G2207+R2218	tower	885.0	99.74	104.21	DC	39.58

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

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

### 11.5.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100377746	218300	LINDEN	PSE&G	217958	LINDEN_345	PSE&G	1	PS_P2-3_LIND2_4-7	breaker	950.0	100.57	106.41	DC	55.42

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

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

#### 11.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378096	218306	DEANS	PSE&G	218304	BRUNSWCK	PSE&G	1	PS_P1-2_Z-2331_LT	single	887.0	118.22	120.95	DC	29.05

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	NWKS1TSP1_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

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

### 11.5.5 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
100378689	218311	SEWAREN	PSE&G	218353	MINUEST_R	PSE&G	1	PS_P7-1_H2286+W2249_L T	tower	887.0	120.4	126.62	DC	55.23

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
100378697	218352	MDWRD_R	PSE&G	218304	BRUNSWC K	PSE&G	1	PS_P7-1_D22204+S2219_L T	tower	885.0	127.18	129.63	DC	47.26

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

<b>Bus #</b>	<b>Bus</b>	<b>Gendeliv MW Impact</b>	<b>Type</b>	<b>Full MW Impact</b>
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

## 11.5.7 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
100378702	218353	MINUEST_R	PSE&G	218300	LINDEN	PSE&G	1	PS_P7-1_H2286+W2249_LT	tower	887.0	117.62	123.84	DC	55.23

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

### 11.5.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100378684	218357	PRSNVAV_R	PSE&G	218352	MDWRD_R	PSE&G	1	PS_P7-1_D2204+S2219_LT	tower	885.0	129.56	132.01	DC	47.26

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

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

11.5.9 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 LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
100378663	218469	METUCHE N	PSE&G	218357	PRSNV_ R	PSE&G	1	PS_P7-1_D2204+S2219_L T	tower	885.0	132.49	134.93	DC	47.26

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

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

## 11.6 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_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
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
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_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

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

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

## 12 Affected Systems

None