



**Generation Interconnection
Feasibility Study Report
for
Queue Project AF2-413
RARITAN RIVER 230 KV
250 MW Capacity / 250 MW Energy**

July 2020

Table of Contents

1	Introduction.....	5
2	Preface.....	5
3	General	6
4	Point of Interconnection.....	7
5	Cost Summary	7
6	Transmission Owner Scope of Work	8
7	Schedule.....	9
8	Transmission Owner Analysis.....	9
9	Interconnection Customer Requirements.....	9
9.1	System Protection.....	9
9.2	Compliance Issues and Interconnection Customer Requirements	9
9.3	Power Factor Requirements.....	10
10	Revenue Metering and SCADA Requirements	10
10.1	PJM Requirements	10
10.2	Meteorological Data Reporting Requirements	10
10.3	Interconnected Transmission Owner Requirements.....	11
11	Summer Peak - Load Flow Analysis - Primary POI	12
11.1	Generation Deliverability	13
11.2	Multiple Facility Contingency	13
11.3	Contribution to Previously Identified Overloads.....	13
11.4	Potential Congestion due to Local Energy Deliverability.....	14
11.5	System Reinforcements - Summer Peak Load Flow - Primary POI.....	17
11.6	Flow Gate Details - Primary POI	22
11.6.1	Index 1	23
11.6.2	Index 2	25
11.6.3	Index 3	28
11.6.4	Index 4	30
11.6.5	Index 5	32
11.6.6	Index 6	34
11.6.7	Index 7	37
11.6.8	Index 8	40

11.6.9	Index 9	43
11.6.10	Index 10.....	46
11.6.11	Index 11.....	48
11.6.12	Index 12.....	50
11.6.13	Index 13.....	53
11.6.14	Index 14.....	55
11.6.15	Index 15.....	57
11.6.16	Index 16.....	60
11.6.17	Index 17.....	63
11.6.18	Index 18.....	65
11.6.19	Index 19.....	67
11.6.20	Index 20.....	69
11.6.21	Index 21.....	71
11.6.22	Index 22.....	74
11.7	Queue Dependencies	77
11.8	Contingency Descriptions - Primary POI.....	80
12	Short Circuit Analysis - Primary POI.....	88
13	Summer Peak - Load Flow Analysis - Secondary POI	89
13.1	Generation Deliverability	90
13.2	Multiple Facility Contingency	90
13.3	Contribution to Previously Identified Overloads.....	91
13.4	Potential Congestion due to Local Energy Deliverability.....	92
13.5	Flow Gate Details - Secondary POI.....	95
13.5.1	Index 1	96
13.5.2	Index 2	98
13.5.3	Index 3	101
13.5.4	Index 4	104
13.5.5	Index 5	106
13.5.6	Index 6	108
13.5.7	Index 7	110
13.5.8	Index 8	112
13.5.9	Index 9	115
13.5.10	Index 10.....	118

13.5.11	Index 11.....	121
13.5.12	Index 12.....	124
13.5.13	Index 13.....	125
13.5.14	Index 14.....	127
13.5.15	Index 15.....	130
13.5.16	Index 16.....	133
13.5.17	Index 17.....	136
13.5.18	Index 18.....	139
13.5.19	Index 19.....	141
13.5.20	Index 20.....	143
13.5.21	Index 21.....	146
13.5.22	Index 22.....	149
13.5.23	Index 23.....	152
13.5.24	Index 24.....	154
13.5.25	Index 25.....	156
13.5.26	Index 26.....	158
13.5.27	Index 27.....	161
13.5.28	Index 28.....	164
13.5.29	Index 29.....	167
13.5.30	Index 30.....	170
13.6	Contingency Descriptions - Secondary POI.....	173
14	Affected Systems	182
15	Attachment 1: One Line Diagram	Error! Bookmark not defined.

1 Introduction

This Feasibility Study has been prepared in accordance with the PJM Open Access Transmission Tariff, 36.2, as well as the Feasibility Study Agreement between the Interconnection Customer (IC), and PJM Interconnection, LLC (PJM), Transmission Provider (TP). The Interconnected Transmission Owner (ITO) is JCPL.

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 Undetermined County, Undetermined. The installed facilities will have a total capability of 250 MW with 250 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 01, 2022. This study does not imply a TO commitment to this in-service date.

Queue Number	AF2-413
Project Name	RARITAN RIVER 230 KV
State	Undetermined
County	Undetermined
Transmission Owner	JCPL
MFO	250
MWE	250
MWC	250
Fuel	Storage
Basecase Study Year	2023

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

4 Point of Interconnection

The interconnection of the project at the Primary POI will be accomplished by constructing a new direct connection to the Raritan River 230 kV substation. AF2-413 is a 250 MW battery energy storage system facility. Battery units will be connected to SMA SC2200-US inverters. Generator step-up transformers are employed to step up inverter output from 385 V to 34.5 kV. An array of feeders collecting power through GSUs connect at the feeder bus. Power from the feeder bus will be stepped up using a 230 kV/34.5 kV/13.8 kV main transformer and delivered at the POI.

Attachment 1 shows a one-line diagram of the proposed primary direct connection facilities for the AF2-413 generation project to connect to the FirstEnergy ("FE") transmission system. IC will be responsible for constructing all of the facilities on its side of the POI, including the attachment facilities which connect the generator to the FE transmission system's direct connection facilities.

5 Cost Summary

The AF2-413 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$59,420,000
Total System Network Upgrade Costs	\$392,184,436 ¹
Total Costs	\$451,604,436

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.

¹ This project currently causes and contributes to overloads of the Transmission System (see Summer Peak Load Flow Analysis section below) and therefore has potential to have cost allocation for the system reinforcements listed in the report. This will be re-evaluated in the System Impact phase. The results may vary with queue customers withdrawing from the queue and other generators deactivating over time. If a customer is the first to cause the need for a project (causes loading to exceed 100% of rating), then the customer is responsible. If a customer's MW contribution to a facility that is already overloaded by a prior queue is less than 5 MW, then they will not receive cost allocation.

6 Transmission Owner Scope of Work

The interconnection of the project at the Primary POI will be accomplished by constructing a new direct connection to the Raritan River 230 kV substation. AF2-413 is a 250 MW battery energy storage system facility. Battery units will be connected to SMA SC2200-US inverters. Generator step-up transformers are employed to step up inverter output from 385 V to 34.5 kV. An array of feeders collecting power through GSUs connect at the feeder bus. Power from the feeder bus will be stepped up using a 230 kV/34.5 kV/13.8 kV main transformer and delivered at the POI.

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

Description	Total Cost
Install disconnect switch, dead-end structure, and associated facilities for generator lead line exit at interconnection substation.	\$340,000
Install (2) new 230 kV 4000 A breakers and expand existing 230 kV bus at Raritan River.	\$4,030,000
Relocate and rebuild 115 kV yard for 230 kV bus expansion at Raritan River substation.	\$46,990,000
Relocate 115 kV lines for 230 kV bus expansion at Raritan River substation.	\$8,060,000
Total Physical Interconnection Costs	\$59,420,000

7 Schedule

Based on the scope of work for the interconnection facilities, it is expected to take a minimum of **60 months** after the signing of an Interconnection Construction Service Agreement and construction kickoff call to complete the installation. This assumes that there will be no environmental issues with any of the new properties associated with this project, that there will be no delays in acquiring the necessary permits for implementing the defined direct work and that all system outages will be allowed when requested.

The schedule for the required Network Impact Reinforcements will be more clearly identified in future study phases. The estimate elapsed time to complete each of the required reinforcements is identified in the “System Reinforcements” section of the report.

8 Transmission Owner Analysis

FE performed an analysis of its underlying transmission <100 kV system. The AF2-413 project did not contribute to any overloads on the FE transmission <100 kV system.

9 Interconnection Customer Requirements

9.1 System Protection

The IC must design its Customer Facilities in accordance with all applicable standards, including the standards in FE’s “Requirements for Transmission Connected Facilities” document located at: <http://www.pjm.com/planning/design-engineering/to-tech-standards/private-firstenergy.aspx>.

Preliminary Protection requirements will be provided as part of the Facilities Study. Detailed Protection Requirements will be provided once the project enters the construction phase.

9.2 Compliance Issues and Interconnection Customer Requirements

The proposed Customer Facilities must be designed in accordance with FE’s “Requirements for Transmission Connected Facilities” document located at: <http://www.pjm.com/planning/design-engineering/to-tech-standards/private-firstenergy.aspx>. In particular, the IC is responsible for the following:

1. The purchase and installation of a fully rated 230 kV circuit breaker to protect the AF2-413 generator lead line. A single circuit breaker must be used to protect this line; if the project has several GSU transformers, the individual GSU transformer breakers cannot be used to protect this line.
2. The purchase and installation of the minimum required FE generation interconnection relaying and control facilities. This includes over/under voltage protection, over/under frequency protection, and zero sequence voltage protection relays.

3. The purchase and installation of supervisory control and data acquisition (“SCADA”) equipment to provide information in a compatible format to the FE Transmission System Control Center.
4. Compliance with the FE and PJM generator power factor and voltage control requirements.
5. The execution of a back-up service agreement to serve the customer load supplied from the AF2-413 generation project metering point when the units are out-of-service. This assumes the intent of the IC is to net the generation with the load.

The IC will also be required to meet all PJM, ReliabilityFirst, and NERC reliability criteria and operating procedures for standards compliance. For example, the IC will need to properly locate and report the over and under voltage and over and under frequency system protection elements for its units as well as the submission of the generator model and protection data required to satisfy the PJM and ReliabilityFirst audits. Failure to comply with these requirements may result in a disconnection of service if the violation is found to compromise the reliability of the FE system.

9.3 Power Factor Requirements

The IC shall design its non-synchronous Customer Facility with the ability to maintain a power factor of at least 0.95 leading (absorbing VARs) to 0.95 lagging (supplying VARs) measured at the high-side of the facility substation transformer(s) connected to the FE transmission system.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Back Panel temperature (Fahrenheit)
- Irradiance (Watts/meter²)
- Ambient air temperature (Fahrenheit) – (Accepted, not required)
- Wind speed (meters/second) – (Accepted, not required)

Wind direction (decimal degrees from true north) – (Accepted, not required)

10.3 Interconnected Transmission Owner Requirements

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

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

The IC will be required to comply with all FE revenue metering requirements for generation interconnection customers which can be found in FE's "Requirements for Transmission Connected Facilities" document located at: <http://www.pjm.com/planning/design-engineering/to-tech-standards/private-firstenergy.aspx>

11 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AF2-413 was evaluated as a 250.0 MW (Capacity 250.0 MW) injection at the Raritan River 230 kV substation in the JCPL area. Project AF2-413 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-413 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPAC T
99747855	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	PS_P1-2_#2LINE	single	869.0	98.3	112.76	DC	129.64
99747856	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	PS_P1-2_#2LINE_LT	single	869.0	97.3	111.76	DC	129.64
99747996	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P1-2_#1LINE	single	817.0	90.26	101.55	DC	95.23
99747998	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P1-2_#1LINE_LT	single	817.0	88.75	100.04	DC	95.23
99748196	206322	28PARLIN	230.0	JCP&L	206298	28WILLIAMS	230.0	JCP&L	1	JC-P1-2-JCC-230-008	single	869.0	94.65	100.85	DC	53.93
99748190	206411	28R11RING A	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	1	JC-P1-2-JCC-230-012	single	817.0	94.47	101.35	DC	56.23
100376423	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	JC-P1-2-JCC-230-043T	single	805.0	98.38	113.99	DC	129.64
100376424	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	PS_P1-2_#2LINE_LT	single	805.0	97.22	112.83	DC	129.64

11.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPAC T
99749028	206310	28NEWPROSP	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	99.33	101.02	DC	31.19
99747651	206322	28PARLIN	230.0	JCP&L	206298	28WILLIAMS	230.0	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	97.76	100.57	DC	53.93

11.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPAC T
99748997	206286	28ATLANTIC	230.0	JCP&L	206310	28NEWPROSP	230.0	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	103.14	104.82	DC	31.19
99748910	206294	28LARRABEE	230.0	JCP&L	206318	28VANHISVL	230.0	JCP&L	1	JC-P7-1-JCC-230-11A	tower	869.0	117.63	118.83	DC	23.18
99748911	206294	28LARRABEE	230.0	JCP&L	206318	28VANHISVL	230.0	JCP&L	1	JC-P7-1-JCC-230-12	tower	869.0	108.04	109.27	DC	23.7

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
99748952	206294	28LARRABEE	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	1	JC-P7-1-JCC-230-7A	tower	1147.0	110.74	111.76	DC	21.93
99747565	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	Y	JC-P2-3-JCC-230-47C	breaker	869.0	122.58	123.67	DC	17.82
99747568	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	X	JC-P2-3-JCC-230-47E	breaker	869.0	122.36	123.44	DC	17.77
99747569	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	X	JC-P2-3-JCC-230-47D	breaker	869.0	120.94	122.03	DC	17.79
99747462	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	817.0	144.53	155.38	DC	94.66
99748917	206309	28SMITHB RG	230.0	JCP&L	206326	28E WINDSR	230.0	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	1394.0	123.38	126.87	DC	107.43
99748918	206309	28SMITHB RG	230.0	JCP&L	206326	28E WINDSR	230.0	JCP&L	1	PS_P7-1_1023+GBK-LN_LT	tower	1394.0	119.74	123.23	DC	107.42
99747358	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	183.92	191.7	DC	71.83
99747359	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-026A	breaker	869.0	170.78	178.54	DC	71.65
99747348	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	187.55	195.31	DC	71.62
99747349	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-026C	breaker	869.0	174.46	182.2	DC	71.44
99748841	206316	28WINDSOR	230.0	JCP&L	219752	CLRKSULL_1	230.0	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	813.0	143.49	148.55	DC	49.43
99748842	206316	28WINDSOR	230.0	JCP&L	219752	CLRKSULL_1	230.0	PSE&G	1	PS_P7-1_1023+GBK-LN_LT	tower	813.0	140.31	145.36	DC	49.39
99748793	206318	28VANHIS VL	230.0	JCP&L	206294	28LARRABEE	230.0	JCP&L	1	JC-P7-1-JCC-230-12	tower	869.0	162.37	163.66	DC	23.7
99748794	206318	28VANHIS VL	230.0	JCP&L	206294	28LARRABEE	230.0	JCP&L	1	JC-P7-1-JCC-230-10A	tower	869.0	153.41	154.86	DC	23.67
99748851	206326	28E WINDSR	230.0	JCP&L	206316	28WINDSOR	230.0	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	869.0	150.02	152.12	DC	40.59
99748852	206326	28E WINDSR	230.0	JCP&L	206316	28WINDSOR	230.0	JCP&L	1	PS_P7-1_1023+GBK-LN_LT	tower	869.0	147.5	149.61	DC	40.55
99747487	206410	28R11RIN GB	230.0	JCP&L	206315	28RED OAKB	230.0	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	143.74	151.44	DC	71.07
99747488	206410	28R11RIN GB	230.0	JCP&L	206315	28RED OAKB	230.0	JCP&L	1	JC-P2-3-JCC-230-026C	breaker	869.0	131.9	139.5	DC	70.9
99747458	206411	28R11RIN GA	230.0	JCP&L	206314	28RED OAKA	230.0	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	147.57	155.29	DC	71.38
99747459	206411	28R11RIN GA	230.0	JCP&L	206314	28RED OAKA	230.0	JCP&L	1	JC-P2-3-JCC-230-026A	breaker	869.0	135.31	142.96	DC	71.2
99747641	206411	28R11RIN GA	230.0	JCP&L	206410	28R11RING B	230.0	JCP&L	1	JC-P2-3-JCC-230-85	breaker	999.0	102.04	107.04	DC	53.62
99747612	218313	GREENBK_W	230.0	PSE&G	206239	28GILLET W	230.0	JCP&L	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	802.0	104.74	113.64	DC	76.2
100377271	219104	CLRKSULL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	869.0	124.24	128.98	DC	49.43
100377272	219104	CLRKSULL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	PS_P7-1_1023+GBK-LN_LT	tower	869.0	121.27	126.0	DC	49.39

11.4 Potential Congestion due to Local Energy Deliverability

PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed

with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
99748154	20630	28OCEANV W	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	X	JC-P1-2-JCC-230-004	operation	869.0	115.73	116.81	DC	17.71
99748155	20630	28OCEANV W	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	Y	JC-P1-2-JCC-230-003	operation	869.0	115.73	116.81	DC	17.71
99747849	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	PS_P1-2_#2LL NE	operation	869.0	162.09	176.06	DC	129.64
99747854	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	Base Case	operation	709.0	135.99	148.98	DC	98.3
99747990	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P1-2_#1LL NE	operation	817.0	142.77	153.69	DC	95.23
99747995	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	Base Case	operation	650.0	112.13	119.73	DC	52.71
99747860	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P1-2-JCC-230-027	operation	869.0	165.65	173.26	DC	70.27
99747861	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	Base Case	operation	709.0	130.11	135.48	DC	38.04
99747844	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P1-2-JCC-230-028	operation	869.0	169.35	176.94	DC	70.06
99747845	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	Base Case	operation	709.0	117.65	122.83	DC	36.67
99748135	206316	28WINDSOR	230.0	JCP&L	219752	CLRKSVLL_1	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	813.0	122.44	124.04	DC	29.18
99748195	206322	28PARLIN	230.0	JCP&L	206298	28WILLIAMS	230.0	JCP&L	1	JC-P1-2-JCC-230-008	operation	869.0	97.7	100.51	DC	53.93
99748063	206410	28R11RINGB	230.0	JCP&L	206315	28RED OAKB	230.0	JCP&L	1	JC-P1-2-JCC-230-028	operation	869.0	126.99	134.44	DC	69.51
99748050	206411	28R11RINGA	230.0	JCP&L	206314	28RED OAKA	230.0	JCP&L	1	JC-P1-2-JCC-230-027	operation	869.0	130.65	138.13	DC	69.82
99748188	206411	28R11RINGA	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	1	JC-P1-2-JCC-230-012	operation	817.0	97.86	100.98	DC	56.23
99748159	218313	GREENBK_W	230.0	PSE&G	206239	28GILLET W	230.0	JCP&L	1	PS_P1-2_1-1023_L T	operation	802.0	104.39	113.29	DC	76.2

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
100376417	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	JC-P1-2-JCC-230-043T	operation	805.0	167.24	182.32	DC	129.64
100376422	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	Base Case	operation	650.0	141.03	155.19	DC	98.3
100376444	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	PS_P1-2_I-1023	operation	679.0	163.05	176.11	DC	94.66
100376449	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	Base Case	operation	523.0	130.25	139.7	DC	52.71
100376497	218333	LNELSN_I	230.0	PSE&G	218301	MIDDLESEX_I	230.0	PSE&G	1	JC-P1-2-JCC-230-043T	operation	819.0	141.09	154.82	DC	120.03
100376502	218333	LNELSN_I	230.0	PSE&G	218301	MIDDLESEX_I	230.0	PSE&G	1	Base Case	operation	709.0	109.92	122.16	DC	92.67
100376620	218334	LNELSN_W	230.0	PSE&G	218522	MIDDLESEX_W	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	887.0	121.35	131.39	DC	95.05
100376614	218522	MIDDLESEX_W	230.0	PSE&G	218313	GREENBK_W	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	887.0	121.35	131.39	DC	95.05
100376729	219104	CLRKSVLL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	869.0	104.56	106.06	DC	29.18

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
99747855,99747856	1	28RAR RVR 230.0 kV - KILMER_I 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0033 (1629) : Replace substation conductor at Raritan River. Reconductor the Kilmer (I1023) - Raritan River 230 kV transmission line (~5.92 miles). Upgrade terminals as required. Project Type : FAC Cost : \$28,151,701 Time Estimate : 42.0 Months NOT_PSEG_CONDUCTOR (1966) : Conductor is Owned by Another TO Project Type : FAC Cost : \$0 Time Estimate : Months	\$28,151,701
99747996,99747998,99747462	2	28RAR RVR 230.0 kV - KILMER_W 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0013 (1599) : Replace substation conductor at Raritan River substation. Reconductor the Kilmer (W1037) - Raritan River 230 kV line (~5.92 miles). Upgrade terminals as required. Project Type : FAC Cost : \$27,983,891 Time Estimate : 42.0 Months	\$27,983,891
100376424,100376423	5	KILMER_I 230.0 kV - LNELSN_I 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0035 : Reconductor the Lake Nelson - Kilmer Ckt I1023 230 kV transmission line (~2.03 miles). Project Type : FAC Cost : \$9,538,462 Time Estimate : 30 Months	\$9,538,462
99749028	6	28NEWPROSP 230.0 kV - 28SMITHBRG 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0015 (1602) : Current branch rating is listed at 709/869/869 MVA (Summer Normal/LTE/STE). This limit should be sufficient, if not please see below: Replace terminal equipment at Atlantic and New Prospect substations. Reconductor the New Prospect Road - Smithburg 230 kV line (~4.6 miles). Project Type : FAC Cost : \$21,613,847 Time Estimate : 12.0 Months	\$21,613,847
100377271,100377272	22	CLRKSVLL_2 230.0 kV - LAWRENCE 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0036 : Reconductor the Clarksville (PS) - Lawrence (PS) Ckt D1018 230 kV transmission line (~3.71 miles). Project Type : FAC Cost : \$17,432,362 Time Estimate : 36 Months	\$17,432,362

ID	Idx	Facility	Upgrade Description	Cost
99748997	7	28ATLANTIC 230.0 kV - 28NEWPROSP 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0002 (1588) : Replace substation conductor at Atlantic substation. Project Type : FAC Cost : \$167,809 Time Estimate : 12.0 Months	\$167,809
99747651,9974 8196	3	28PARLIN 230.0 kV - 28WILLIAMS 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0020 (1610) : Reconductor the Williams Gas Pipeline - Parlin 230 kV line (~2.89 miles). Project Type : FAC Cost : \$13,579,135 Time Estimate : 30.0 Months	\$13,579,135
99748842,9974 8841	15	28WINDSOR 230.0 kV - CLRKSVLL_1 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0017 (1606) : Replace substation conductor at Windsor substation. Replace terminal equipment at Windsor substation. Reconductor the Clariksville (PS) - Windsor 230 kV line (~7.45 miles). Replace wave trap at Windsor Replace circuit breaker at Windsor Replace disconnect switches at Windsor. Replace relaying, metering, and fault switch at Windsor Project Type : FAC Cost : \$38,495,471 Time Estimate : 42.0 Months	\$38,495,471
99748918,9974 8917	12	28SMITHBRG 230.0 kV - 28E WINDSR 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0014a (1600) : Replace Gas Insulated Bus terminal equipment at Smithburg. Replace fault switches at East Windsor substation. Project Type : FAC Cost : \$1,879,465 Time Estimate : 12.0 Months JCP&L-AF2-F-0014b (1601) : Replace substation conductor at East Windsor and Smithburg substations. Project Type : FAC Cost : \$167,809 Time Estimate : 12.0 Months	\$2,047,274

ID	Idx	Facility	Upgrade Description	Cost
99747612	21	GREENBK_W 230.0 kV - 28GILLET W 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0032 (1628) : Replace substation conductor at Gillete. Replace current transformers at Gillete. Reconductor the Gillette - Greenbrook 230 kV transmission line (~6.09 miles). Replace disconnect switch at Gillete. Replace Fault Switch at Gillete. PSE&G will have to address the external rating to upgrade meet or exceed 917 MVA. Project Type : FAC Cost : \$30,796,376 Time Estimate : 42.0 Months	\$30,796,376
99747641	20	28R11RINGA 230.0 kV - 28R11RINGB 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0026 (1617) : Reconductor e R11 Ring Bus A to R11 Ring Bus B 230 kV transmission line. Upgrade terminal equipment as required. Project Type : FAC Cost : \$1,342,475 Time Estimate : 12.0 Months	\$1,342,475
99747349,9974 7348	14	28RED OAKB 230.0 kV - 28RAR RVR 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0016a (1603) : Reconductor the Raritan River - Red Oak B 230 kV line (~2.58 miles). Project Type : FAC Cost : \$12,122,549 Time Estimate : 30.0 Months JCP&L-AF2-F-0016b (1604) : Replace substation conductor at Raritan River substation. Project Type : FAC Cost : \$167,809 Time Estimate : 12.0 Months JCP&L-AF2-F-0016c (1605) : Replace relaying, metereing, and substation conductor at Raritan River substation. Project Type : FAC Cost : \$536,990 Time Estimate : 12.0 Months	\$12,827,349
99748952	9	28LARRABEE 230.0 kV - 28ATLANTIC 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0003 (1589) : Replace disconnect switch at Atlantic substation. Project Type : FAC Cost : \$234,933 Time Estimate : 12.0 Months	\$234,933

ID	Idx	Facility	Upgrade Description	Cost
99747569,99747568	11	28OCEANVW 230.0 kV - 28ATLANTIC 230.0 kV Ckt X	<u>JCPL</u> JCP&L-AF2-F-0009 (1596) : Reconductor the Oceanview - Atlantic X 230 kV line (~4.6 miles). Replace disconnect switch at Atlantic substation. Project Type : FAC Cost : \$21,848,781 Time Estimate : 36.0 Months	\$21,848,781
99748911,99748910	8	28LARRABEE 230.0 kV - 28VANHISVL 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0006a (1592) : Reconductor the Larrabee - Van Hiseville 230 kV line (~7.5 miles). Project Type : FAC Cost : \$35,239,969 Time Estimate : 42.0 Months JCP&L-AF2-F-0006b (1593) : Replace relaying and metering at Larrabee substation. Project Type : FAC Cost : \$536,990 Time Estimate : 12.0 Months	\$35,776,959
99747358,99747359	13	28RED OAKA 230.0 kV - 28RAR RVR 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0029a (1619) : Replace the Raritan River - Red Oak A 230 kV line (~2.58 miles). Project Type : FAC Cost : \$12,122,549 Time Estimate : 30.0 Months JCP&L-AF2-F-0029b (1620) : Replace relaying at Raritan River. Replace substation conductor and terminal equipment at Raritan River. Project Type : FAC Cost : \$704,799 Time Estimate : 12.0 Months	\$12,827,349
99747565	10	28OCEANVW 230.0 kV - 28ATLANTIC 230.0 kV Ckt Y	<u>JCPL</u> JCP&L-AF2-F-0010 (1597) : Reconductor the Oceanview - Atlantic Y 230 kV line (~4.6 miles). Replace disconnect switch at Atlantic substation. Project Type : FAC Cost : \$21,848,781 Time Estimate : 36.0 Months	\$21,848,781
99747459,99747458	19	28R11RINGA 230.0 kV - 28RED OAKA 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0025 (1616) : Reconductor R11 Ring bus to Red Oak A 230 kV transmission line (~0.6 miles). Upgrade terminals as required. Project Type : FAC Cost : \$2,987,007 Time Estimate : 12.0 Months	\$2,987,007

ID	Idx	Facility	Upgrade Description	Cost
99747488,9974 7487	18	28R11RINGB 230.0 kV - 28RED OAKB 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0023 (1614) : Reconductor R11 Ring bus to Red Oak B 230 kV transmission line (~0.6 miles). Upgrade terminals as required. Project Type : FAC Cost : \$2,819,198 Time Estimate : 12.0 Months	\$2,819,198
99748793,9974 8794	16	28VANHISVL 230.0 kV - 28LARRABEE 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0018 (1607) : Reconductor the Larrabee - Van Hiseville 230 kV line (~7.5 miles). Replace wave trap at Larrabee. Replace relaying, metering, current transformers, and fault switch at Larrabee. Project Type : FAC Cost : \$37,018,748 Time Estimate : 42.0 Months	\$37,018,748
99748851,9974 8852	17	28E WINDSR 230.0 kV - 28WINDSOR 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0022a (1612) : Replace current transformers at Windsor. Reconductor the East Windsor - Windsor 230 kV line (~2.5 miles). Replace wave trap at Windsor. Replace circuit breaker at Windsor. Replace relaying, metering, and fault switches at Windsor. Project Type : FAC Cost : \$14,116,125 Time Estimate : 30.0 Months JCP&L-AF2-F-0022b (1613) : Replace Disconnect Switches at Windsor Project Type : FAC Cost : \$1,174,666 Time Estimate : 12.0 Months	\$15,290,790
99748190	4	28R11RINGA 230.0 kV - 28ATLANTIC 230.0 kV Ckt 1	<u>JCPL</u> JCP&L-AF2-F-0024 (1615) : Reconductor R11 Ring bus to Atlantic 230 kV line (~18.5 miles). Project Type : FAC Cost : \$37,555,738 Time Estimate : 60.0 Months	\$37,555,738
			TOTAL COST	\$392,184,436 ¹

11.6 Flow Gate Details - Primary POI

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

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/DC	MW IMPACT
99747855	206305	28RAR RVR	JCP&L	218331	KILMER_I	PSE&G	1	PS_P1-2_#2LINE	single	869.0	98.3	112.76	DC	129.64

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0803	80/20	0.0803
206271	28MCRC/REC	1.8041	80/20	1.8041
206306	28LKWD G1	2.5738	80/20	2.5738
206308	28LKWD G2	2.5738	80/20	2.5738
206312	28LKWD G3	1.8646	80/20	1.8646
206325	28O C GEN (Deactivation : 17/09/2018)	29.4187	Adder	34.61
206327	28S RIV G1	6.0601	80/20	6.0601
206328	28S RIV G2	6.0601	80/20	6.0601
206329	28S RIV G3	8.1959	80/20	8.1959
206350	28RRCT1&2	7.2408	80/20	7.2408
206351	28RRCT3&4	6.7801	80/20	6.7801
206358	28PARLN1&2	3.7711	80/20	3.7711
206359	28PARLN3&4	4.5900	80/20	4.5900
206362	28RDOAKCT1	14.7722	80/20	14.7722
206363	28RDOAKCT2	14.7401	80/20	14.7401
206364	28RDOAKCT3	14.7401	80/20	14.7401
206365	28RDOAKST1	20.7151	80/20	20.7151
206366	28LKWD CT1	5.1877	80/20	5.1877
206367	28LKWD CT2	5.1877	80/20	5.1877
206368	28MDLSEXCO	1.3920	80/20	1.3920
206370	LKWD CT3	30.4147	Adder	35.78
206403	28W4-009	64.8513	80/20	64.8513
206412	28R11	213.3296	80/20	213.3296
207144	28HOW_X1-037	0.2593	80/20	0.2593
207145	28FRN_Y2-051	0.0639	80/20	0.0639
207148	28MDF_W3-079	0.0907	80/20	0.0907
207152	28NPK_W1-113	0.0992	80/20	0.0992
207162	28APLW2-078	0.1110	80/20	0.1110
207169	28W4-060COL	0.2530	80/20	0.2530
207204	28HOL_W1-112	0.0877	80/20	0.0877
207205	28MAN_W1-024	0.0486	80/20	0.0486
207206	28TIN_W1-124	0.3074	80/20	0.3074
207420	AC1-207 C	1.0529	80/20	1.0529
923791	AB2-014	0.2500	80/20	0.2500
934351	AD1-059	0.4598	80/20	0.4598
934841	AD1-113 (Suspended)	38.8928	80/20	38.8928
939121	AE1-142 C O1	1.1635	Adder	1.37
939981	AE1-238 C	60.9300	80/20	60.9300
940161	AE2-000 C O1	30.0076	Adder	35.3
940401	AE2-024 C O1	28.7843	80/20	28.7843
940411	AE2-025 C	14.5303	80/20	14.5303

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940691	AE2-056 C	0.3713	80/20	0.3713
940701	AE2-057 C	0.1164	80/20	0.1164
940921	AE2-081 C	0.3946	80/20	0.3946
940931	AE2-082 C	0.6849	80/20	0.6849
943521	AF1-023	2.3577	80/20	2.3577
943561	AF1-027	0.2189	Adder	0.26
944611	AF1-126 C O1	4.8004	Adder	5.65
945201	AF1-185 1	2.3336	80/20	2.3336
945211	AF1-185 2	0.5186	80/20	0.5186
945571	AF1-222 C	37.9797	80/20	37.9797
945951	AF1-260	0.1978	80/20	0.1978
957271	AF2-021 C	0.8674	Adder	1.93
957781	AF2-072 C	4.6358	80/20	4.6358
958761	AF2-167 C O1	0.9643	80/20	0.9643
959151	AF2-206 C O1	1.2675	80/20	1.2675
959631	AF2-254 C	0.2455	Adder	0.54
961221	AF2-413 O1	129.6425	80/20	129.6425
NEWTON	NEWTON	0.6802	Confirmed LTF	0.6802
FARMERCITY	FARMERCITY	0.0353	Confirmed LTF	0.0353
G-007A	G-007A	124.3272	Confirmed LTF	124.3272
CALDERWOOD	CALDERWOOD	0.3037	Confirmed LTF	0.3037
NY	NY	1.7165	Confirmed LTF	1.7165
PRAIRIE	PRAIRIE	1.6273	Confirmed LTF	1.6273
CHEOAH	CHEOAH	0.3053	Confirmed LTF	0.3053
EDWARDS	EDWARDS	0.2226	Confirmed LTF	0.2226
TILTON	TILTON	0.4007	Confirmed LTF	0.4007
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
GIBSON	GIBSON	0.3462	Confirmed LTF	0.3462
BLUEG	BLUEG	1.1006	Confirmed LTF	1.1006
TRIMBLE	TRIMBLE	0.3528	Confirmed LTF	0.3528
CATAWBA	CATAWBA	0.2072	Confirmed LTF	0.2072

11.6.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747462	206305	28RAR RVR	JCP&L	218332	KILMER_W	PSE&G	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	817.0	144.53	155.38	DC	94.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.1322	Adder	1.33
206325	28O C GEN (Deactivation : 17/09/2018)	22.0812	Adder	25.98
206350	28RRCT1&2	5.2871	50/50	5.2871
206351	28RRCT3&4	4.9507	50/50	4.9507
206362	28RDOAKCT1	10.7939	50/50	10.7939
206363	28RDOAKCT2	10.7708	50/50	10.7708
206364	28RDOAKCT3	10.7708	50/50	10.7708
206365	28RDOAKST1	15.1363	50/50	15.1363
206370	LKWD CT3	22.7341	Adder	26.75
206403	28W4-009	47.3532	50/50	47.3532
206412	28R11	132.5232	Adder	155.91
206414	28X4-005E	7.5730	50/50	7.5730
207143	28BYD_X4-031	0.3130	Adder	0.37
207400	28AA1-060 E	1.4913	Adder	1.75
207419	AB2-139 E	0.0524	Adder	0.06
207420	AC1-207 C	0.6661	Adder	0.78
901032	W1-024E OP1	0.2943	Adder	0.35
901112	W1-032 E OP1	0.1781	Adder	0.21
901422	W1-113 E	0.6015	Adder	0.71
901912	W1-112E OP1	0.5183	Adder	0.61
901982	W1-119 E	0.4672	Adder	0.55
901992	W1-120E	0.4672	Adder	0.55
902032	W1-124E	1.8350	Adder	2.16
902082	W1-129E	0.2542	Adder	0.3
902322	W2-019 E	0.3014	Adder	0.35
902912	W2-078 E	0.6736	Adder	0.79
902952	W2-082 E OP1	0.8674	Adder	1.02
903982	W3-079 E	0.5511	Adder	0.65
905252	W4-025 E	0.3608	Adder	0.42
905502	W4-060 E OP1	1.4918	Adder	1.76
907082	X1-037 E	1.5467	Adder	1.82
907272	X1-085 E	0.2603	Adder	0.31
912102	X4-015 E	0.2550	Adder	0.3
914092	Y2-051 E	0.3828	Adder	0.45
917612	Z2-102 E	0.6891	Adder	0.81
919662	AA2-048 E	0.8768	Adder	1.03
920732	AA2-184 E	2.0428	Adder	2.4
923293	AB1-138 E	0.6503	Adder	0.77
923463	AB1-163 E	0.5328	Adder	0.63
927132	AC1-207 E	1.1146	Adder	1.31
934841	AD1-113 (Suspended)	28.3988	50/50	28.3988

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
937513	AD2-210 BAT (Suspended)	0.1769	Merchant Transmission	0.1769
939121	AE1-142 C O1	0.8713	Adder	1.03
939122	AE1-142 E O1	1.2539	Adder	1.48
939981	AE1-238 C	38.2615	Adder	45.01
939982	AE1-238 E	100.5001	Adder	118.24
940161	AE2-000 C O1	22.5232	Adder	26.5
940162	AE2-000 E O1	57.6292	Adder	67.8
940401	AE2-024 C O1	18.2718	Adder	21.5
940402	AE2-024 E O1	85.5466	Adder	100.64
940411	AE2-025 C	9.2236	Adder	10.85
940412	AE2-025 E	43.1800	Adder	50.8
940691	AE2-056 C	0.2342	Adder	0.28
940692	AE2-056 E	0.2049	Adder	0.24
940701	AE2-057 C	0.0734	Adder	0.09
940702	AE2-057 E	0.0734	Adder	0.09
940921	AE2-081 C	0.2488	Adder	0.29
940922	AE2-081 E	0.2561	Adder	0.3
940931	AE2-082 C	0.4342	Adder	0.51
940932	AE2-082 E	0.4597	Adder	0.54
943521	AF1-023	1.4793	Adder	1.74
943561	AF1-027	0.1657	Adder	0.19
944332	AF1-101 E O1	56.4996	Adder	66.47
944611	AF1-126 C O1	3.6452	Adder	4.29
944612	AF1-126 E O1	14.5809	Adder	17.15
945201	AF1-185 1	1.7039	50/50	1.7039
945211	AF1-185 2	0.3787	50/50	0.3787
945571	AF1-222 C	23.8497	Adder	28.06
945572	AF1-222 E	62.8764	Adder	73.97
945951	AF1-260	0.1253	Adder	0.15
957271	AF2-021 C	0.6564	Adder	1.46
957272	AF2-021 E	0.9846	Adder	2.19
957781	AF2-072 C	1.5596	Adder	3.46
957782	AF2-072 E	1.5596	Adder	3.46
958761	AF2-167 C O1	0.3205	Adder	0.71
958762	AF2-167 E O1	0.4426	Adder	0.98
959151	AF2-206 C O1	0.4256	Adder	0.94
959152	AF2-206 E O1	0.5874	Adder	1.3
959631	AF2-254 C	0.1855	Adder	0.41
959632	AF2-254 E	0.2561	Adder	0.57
961221	AF2-413 O1	94.6625	50/50	94.6625
NEWTON	NEWTON	0.4105	Confirmed LTF	0.4105
FARMERCITY	FARMERCITY	0.0213	Confirmed LTF	0.0213
G-007A	G-007A	90.7813	Confirmed LTF	90.7813
CALDERWOOD	CALDERWOOD	0.1794	Confirmed LTF	0.1794
NY	NY	1.7945	Confirmed LTF	1.7945
PRAIRIE	PRAIRIE	0.9764	Confirmed LTF	0.9764
O-066	O-066	41.7715	Confirmed LTF	41.7715
CHEOAH	CHEOAH	0.1807	Confirmed LTF	0.1807
EDWARDS	EDWARDS	0.1347	Confirmed LTF	0.1347
TILTON	TILTON	0.2419	Confirmed LTF	0.2419
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.2091	Confirmed LTF	0.2091

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
BLUEG	BLUEG	0.6632	Confirmed LTF	0.6632
TRIMBLE	TRIMBLE	0.2131	Confirmed LTF	0.2131
CATAWBA	CATAWBA	0.1204	Confirmed LTF	0.1204

11.6.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747651	206322	28PARLIN	JCP&L	206298	28WILLIAMS	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	97.76	100.57	DC	53.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206327	28S RIV G1	3.1534	50/50	3.1534
206328	28S RIV G2	3.1534	50/50	3.1534
206329	28S RIV G3	4.2648	50/50	4.2648
206358	28PARLN1&2	2.3716	50/50	2.3716
206359	28PARLN3&4	2.8865	50/50	2.8865
206362	28RDOAKCT1	7.5287	50/50	7.5287
206363	28RDOAKCT2	7.3681	50/50	7.3681
206364	28RDOAKCT3	7.3681	50/50	7.3681
206365	28RDOAKST1	10.5575	50/50	10.5575
206403	28W4-009	26.9750	50/50	26.9750
206412	28R11	111.0076	50/50	111.0076
206414	28X4-005E	3.6669	Adder	4.31
207401	AA1-060 BAT	1.7146	Merchant Transmission	1.7146
217724	BRIDGSP1_E	0.0413	Adder	0.05
218629	LAKENESP1_E	0.0456	Adder	0.05
218635	LAKENESP2_E	0.0337	Adder	0.04
219250	CENTRALDIV E	0.0259	Adder	0.03
902322	W2-019 E	-0.3065	Adder	-0.36
919663	AA2-048 BAT	1.1256	Merchant Transmission	1.1256
934841	AD1-113 (Suspended)	13.7509	Adder	16.18
939121	AE1-142 C O1	-0.9393	Adder	-1.11
940691	AE2-056 C	-0.2307	Adder	-0.27
940701	AE2-057 C	-0.0674	Adder	-0.08
940921	AE2-081 C	-0.2452	Adder	-0.29
944613	AF1-126 BAT	23.0450	Merchant Transmission	23.0450
945201	AF1-185 1	0.8251	Adder	0.97
945211	AF1-185 2	0.1833	Adder	0.22
957273	AF2-021 BAT	2.0935	Merchant Transmission	2.0935
957783	AF2-072 BAT	3.9549	Merchant Transmission	3.9549
961221	AF2-413 O1	24.2932	Adder	53.92
NEWTON	NEWTON	0.2514	Confirmed LTF	0.2514
FARMERCITY	FARMERCITY	0.0132	Confirmed LTF	0.0132
G-007A	G-007A	51.7117	Confirmed LTF	51.7117
VFT	VFT	17.1506	Confirmed LTF	17.1506
CALDERWOOD	CALDERWOOD	0.1247	Confirmed LTF	0.1247
PRAIRIE	PRAIRIE	0.6122	Confirmed LTF	0.6122
CHEOAH	CHEOAH	0.1256	Confirmed LTF	0.1256
EDWARDS	EDWARDS	0.0812	Confirmed LTF	0.0812
TILTON	TILTON	0.1462	Confirmed LTF	0.1462
GIBSON	GIBSON	0.1278	Confirmed LTF	0.1278
BLUEG	BLUEG	0.4062	Confirmed LTF	0.4062

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1302	Confirmed LTF	0.1302
CATAWBA	CATAWBA	0.0927	Confirmed LTF	0.0927

11.6.4 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
99748190	206411	28R11RINGA	JCP&L	206286	28ATLANTIC	JCP&L	1	JC-P1-2-JCC-230-012	single	817.0	94.47	101.35	DC	56.23

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206327	28S RIV G1	3.3721	80/20	3.3721
206328	28S RIV G2	3.3721	80/20	3.3721
206329	28S RIV G3	4.5606	80/20	4.5606
206350	28RRCT1&2	3.1403	80/20	3.1403
206351	28RRCT3&4	2.9405	80/20	2.9405
206358	28PARLN1&2	2.0971	80/20	2.0971
206359	28PARLN3&4	2.5524	80/20	2.5524
206362	28RDOAKCT1	7.6253	80/20	7.6253
206363	28RDOAKCT2	7.8471	80/20	7.8471
206364	28RDOAKCT3	7.8471	80/20	7.8471
206365	28RDOAKST1	10.6930	80/20	10.6930
206403	28W4-009	28.1255	80/20	28.1255
206412	28R11	118.7076	80/20	118.7076
206767	28BRNX1-095	0.0097	80/20	0.0097
217723	BRIDGSP1_C	0.0054	80/20	0.0054
218628	LAKENESP1_C	0.0059	80/20	0.0059
218668	SOMERVSP1_C	0.0003	80/20	0.0003
218670	SOMERVSP2_C	0.0003	80/20	0.0003
219249	CENTRALDIV C	0.0035	80/20	0.0035
219630	LAKENESP2_C	0.0044	80/20	0.0044
934841	AD1-113 (Suspended)	16.8675	80/20	16.8675
939121	AE1-142 C O1	-0.9826	Adder	-1.16
940691	AE2-056 C	-0.2033	Adder	-0.24
940701	AE2-057 C	-0.0555	Adder	-0.07
940921	AE2-081 C	-0.2160	Adder	-0.25
945201	AF1-185 1	1.0121	80/20	1.0121
945211	AF1-185 2	0.2249	80/20	0.2249
961221	AF2-413 O1	56.2250	80/20	56.2250
NEWTON	NEWTON	0.2611	Confirmed LTF	0.2611
FARMERCITY	FARMERCITY	0.0137	Confirmed LTF	0.0137
G-007A	G-007A	53.9198	Confirmed LTF	53.9198
VFT	VFT	17.9116	Confirmed LTF	17.9116
CALDERWOOD	CALDERWOOD	0.1292	Confirmed LTF	0.1292
PRAIRIE	PRAIRIE	0.6354	Confirmed LTF	0.6354
CHEOAH	CHEOAH	0.1301	Confirmed LTF	0.1301
EDWARDS	EDWARDS	0.0840	Confirmed LTF	0.0840
TILTON	TILTON	0.1518	Confirmed LTF	0.1518
GIBSON	GIBSON	0.1321	Confirmed LTF	0.1321
BLUEG	BLUEG	0.4201	Confirmed LTF	0.4201
TRIMBLE	TRIMBLE	0.1347	Confirmed LTF	0.1347
CATAWBA	CATAWBA	0.0962	Confirmed LTF	0.0962

11.6.5 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
100376423	218331	KILMER_I	PSE&G	218333	LNELSN_I	PSE&G	1	JC-P1-2-JCC-230-043T	single	805.0	98.38	113.99	DC	129.64

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0803	80/20	0.0803
206271	28MCRC/REC	1.8041	80/20	1.8041
206306	28LKWD G1	2.5738	80/20	2.5738
206308	28LKWD G2	2.5738	80/20	2.5738
206312	28LKWD G3	1.8646	80/20	1.8646
206325	28O C GEN (Deactivation : 17/09/2018)	29.4187	Adder	34.61
206327	28S RIV G1	6.0601	80/20	6.0601
206328	28S RIV G2	6.0601	80/20	6.0601
206329	28S RIV G3	8.1959	80/20	8.1959
206350	28RRCT1&2	7.2408	80/20	7.2408
206351	28RRCT3&4	6.7801	80/20	6.7801
206358	28PARLN1&2	3.7711	80/20	3.7711
206359	28PARLN3&4	4.5900	80/20	4.5900
206362	28RDOAKCT1	14.7722	80/20	14.7722
206363	28RDOAKCT2	14.7401	80/20	14.7401
206364	28RDOAKCT3	14.7401	80/20	14.7401
206365	28RDOAKST1	20.7151	80/20	20.7151
206366	28LKWD CT1	5.1877	80/20	5.1877
206367	28LKWD CT2	5.1877	80/20	5.1877
206368	28MDLSEXCO	1.3920	80/20	1.3920
206370	LKWD CT3	30.4147	Adder	35.78
206403	28W4-009	64.8513	80/20	64.8513
206412	28R11	213.3296	80/20	213.3296
207144	28HOW_X1-037	0.2593	80/20	0.2593
207145	28FRN_Y2-051	0.0639	80/20	0.0639
207148	28MDF_W3-079	0.0907	80/20	0.0907
207152	28NPK_W1-113	0.0992	80/20	0.0992
207162	28APLW2-078	0.1110	80/20	0.1110
207169	28W4-060COL	0.2530	80/20	0.2530
207204	28HOL_W1-112	0.0877	80/20	0.0877
207205	28MAN_W1-024	0.0486	80/20	0.0486
207206	28TIN_W1-124	0.3074	80/20	0.3074
207420	AC1-207 C	1.0529	80/20	1.0529
923791	AB2-014	0.2500	80/20	0.2500
934351	AD1-059	0.4598	80/20	0.4598
934841	AD1-113 (Suspended)	38.8928	80/20	38.8928
939121	AE1-142 C O1	1.1635	Adder	1.37
939981	AE1-238 C	60.9300	80/20	60.9300
940161	AE2-000 C O1	30.0076	Adder	35.3
940401	AE2-024 C O1	28.7843	80/20	28.7843

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940411	AE2-025 C	14.5303	80/20	14.5303
940691	AE2-056 C	0.3713	80/20	0.3713
940701	AE2-057 C	0.1164	80/20	0.1164
940921	AE2-081 C	0.3946	80/20	0.3946
940931	AE2-082 C	0.6849	80/20	0.6849
943521	AF1-023	2.3577	80/20	2.3577
943561	AF1-027	0.2189	Adder	0.26
944611	AF1-126 C O1	4.8004	Adder	5.65
945201	AF1-185 1	2.3336	80/20	2.3336
945211	AF1-185 2	0.5186	80/20	0.5186
945571	AF1-222 C	37.9797	80/20	37.9797
945951	AF1-260	0.1978	80/20	0.1978
957271	AF2-021 C	0.8674	Adder	1.93
957781	AF2-072 C	4.6358	80/20	4.6358
958761	AF2-167 C O1	0.9643	80/20	0.9643
959151	AF2-206 C O1	1.2675	80/20	1.2675
959631	AF2-254 C	0.2455	Adder	0.54
961221	AF2-413 O1	129.6425	80/20	129.6425
NEWTON	NEWTON	0.6802	Confirmed LTF	0.6802
FARMERCITY	FARMERCITY	0.0353	Confirmed LTF	0.0353
G-007A	G-007A	124.3272	Confirmed LTF	124.3272
CALDERWOOD	CALDERWOOD	0.3037	Confirmed LTF	0.3037
NY	NY	1.7165	Confirmed LTF	1.7165
PRAIRIE	PRAIRIE	1.6273	Confirmed LTF	1.6273
CHEOAH	CHEOAH	0.3053	Confirmed LTF	0.3053
EDWARDS	EDWARDS	0.2226	Confirmed LTF	0.2226
TILTON	TILTON	0.4007	Confirmed LTF	0.4007
MADISON	MADISON	0.0121	Confirmed LTF	0.0121
GIBSON	GIBSON	0.3462	Confirmed LTF	0.3462
BLUEG	BLUEG	1.1006	Confirmed LTF	1.1006
TRIMBLE	TRIMBLE	0.3528	Confirmed LTF	0.3528
CATAWBA	CATAWBA	0.2072	Confirmed LTF	0.2072

11.6.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99749028	206310	28NEWPROSP	JCP&L	206309	28SMITHBRG	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	99.33	101.02	DC	31.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.7504	50/50	1.7504
206306	28LKWD G1	3.2704	50/50	3.2704
206308	28LKWD G2	3.2704	50/50	3.2704
206312	28LKWD G3	2.3693	50/50	2.3693
206325	28O C GEN (Deactivation : 17/09/2018)	36.5670	Adder	43.02
206366	28LKWD CT1	6.5917	50/50	6.5917
206367	28LKWD CT2	6.5917	50/50	6.5917
206370	LKWD CT3	45.4660	50/50	45.4660
206412	28R11	55.8382	Adder	65.69
206414	28X4-005E	2.1213	Adder	2.5
207143	28BYD_X4-031	0.4548	50/50	0.4548
207145	28FRN_Y2-051	0.0759	50/50	0.0759
207148	28MDF_W3-079	0.1060	50/50	0.1060
207204	28HOL_W1-112	0.0619	50/50	0.0619
207206	28TIN_W1-124	0.3008	50/50	0.3008
207400	28AA1-060 E	1.4422	Adder	1.7
207419	AB2-139 E	-0.0230	Adder	-0.03
218629	LAKENESP1_E	0.0254	Adder	0.03
218635	LAKENESP2_E	0.0174	Adder	0.02
901912	W1-112E OP1	0.5858	50/50	0.5858
901982	W1-119 E	0.6711	Adder	0.79
901992	W1-120E	0.6711	Adder	0.79
902032	W1-124E	2.8613	50/50	2.8613
902082	W1-129E	0.3515	Adder	0.41
902322	W2-019 E	0.4145	Adder	0.49
902952	W2-082 E OP1	1.2081	Adder	1.42
903982	W3-079 E	1.0162	50/50	1.0162
905252	W4-025 E	0.4990	Adder	0.59
905502	W4-060 E OP1	0.8295	Adder	0.98
907082	X1-037 E	1.3357	Adder	1.57
907272	X1-085 E	0.1787	Adder	0.21
912102	X4-015 E	0.3537	Adder	0.42
914092	Y2-051 E	0.7175	50/50	0.7175
917612	Z2-102 E	0.9891	Adder	1.16
919662	AA2-048 E	1.6167	50/50	1.6167
920732	AA2-184 E	3.1362	50/50	3.1362
923293	AB1-138 E	1.0602	Adder	1.25
923463	AB1-163 E	0.8313	Adder	0.98
923791	AB2-014	0.3176	50/50	0.3176
930001	AB1-001 C	0.0497	Adder	0.06
930002	AB1-001 E	0.0816	Adder	0.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934351	AD1-059	0.5843	50/50	0.5843
934841	AD1-113 (Suspended)	7.9547	Adder	9.36
939121	AE1-142 C O1	1.7149	50/50	1.7149
939122	AE1-142 E O1	2.4677	50/50	2.4677
939981	AE1-238 C	65.3760	50/50	65.3760
939982	AE1-238 E	171.7210	50/50	171.7210
940161	AE2-000 C O1	37.2990	Adder	43.88
940162	AE2-000 E O1	95.4353	Adder	112.28
940401	AE2-024 C O1	36.7833	50/50	36.7833
940402	AE2-024 E O1	172.2154	50/50	172.2154
940411	AE2-025 C	18.5682	50/50	18.5682
940412	AE2-025 E	86.9264	50/50	86.9264
940691	AE2-056 C	0.1985	Adder	0.23
940692	AE2-056 E	0.1737	Adder	0.2
940701	AE2-057 C	0.0420	Adder	0.05
940702	AE2-057 E	0.0420	Adder	0.05
940921	AE2-081 C	0.2109	Adder	0.25
940922	AE2-081 E	0.2171	Adder	0.26
943521	AF1-023	2.2710	50/50	2.2710
943561	AF1-027	0.1602	Adder	0.19
944332	AF1-101 E O1	93.5646	Adder	110.08
944611	AF1-126 C O1	5.5688	Adder	6.55
944612	AF1-126 E O1	22.2751	Adder	26.21
945201	AF1-185 1	0.4773	Adder	0.56
945211	AF1-185 2	0.1061	Adder	0.12
945571	AF1-222 C	40.7510	50/50	40.7510
945572	AF1-222 E	107.4346	50/50	107.4346
945951	AF1-260	0.2310	50/50	0.2310
957271	AF2-021 C	1.0341	Adder	2.3
957272	AF2-021 E	1.5511	Adder	3.44
957772	AF2-071 BAT	4.5447	Merchant Transmission	4.5447
957781	AF2-072 C	5.9240	50/50	5.9240
957782	AF2-072 E	5.9240	50/50	5.9240
958761	AF2-167 C O1	0.9127	50/50	0.9127
958762	AF2-167 E O1	1.2605	50/50	1.2605
959151	AF2-206 C O1	1.4888	50/50	1.4888
959152	AF2-206 E O1	2.0549	50/50	2.0549
959631	AF2-254 C	0.2603	Adder	0.58
959632	AF2-254 E	0.3595	Adder	0.8
961221	AF2-413 O1	14.0533	Adder	31.19
NEWTON	NEWTON	0.3503	Confirmed LTF	0.3503
FARMERCITY	FARMERCITY	0.0183	Confirmed LTF	0.0183
G-007A	G-007A	29.9160	Confirmed LTF	29.9160
CALDERWOOD	CALDERWOOD	0.1605	Confirmed LTF	0.1605
NY	NY	0.1167	Confirmed LTF	0.1167
PRAIRIE	PRAIRIE	0.8421	Confirmed LTF	0.8421
CHEOAH	CHEOAH	0.1617	Confirmed LTF	0.1617
EDWARDS	EDWARDS	0.1144	Confirmed LTF	0.1144
TILTON	TILTON	0.2060	Confirmed LTF	0.2060
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.1785	Confirmed LTF	0.1785
BLUEG	BLUEG	0.5677	Confirmed LTF	0.5677

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1820	Confirmed LTF	0.1820
CATAWBA	CATAWBA	0.1123	Confirmed LTF	0.1123

11.6.7 Index 7

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99748997	206286	28ATLANTIC	JCP&L	206310	28NEWPROSP	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	103.14	104.82	DC	31.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.7504	50/50	1.7504
206306	28LKWD G1	3.2704	50/50	3.2704
206308	28LKWD G2	3.2704	50/50	3.2704
206312	28LKWD G3	2.3693	50/50	2.3693
206325	28O C GEN (Deactivation : 17/09/2018)	36.5670	Adder	43.02
206366	28LKWD CT1	6.5917	50/50	6.5917
206367	28LKWD CT2	6.5917	50/50	6.5917
206370	LKWD CT3	45.4660	50/50	45.4660
206412	28R11	55.8382	Adder	65.69
206414	28X4-005E	2.1213	Adder	2.5
207143	28BYD_X4-031	0.4548	50/50	0.4548
207145	28FRN_Y2-051	0.0759	50/50	0.0759
207148	28MDF_W3-079	0.1060	50/50	0.1060
207204	28HOL_W1-112	0.0619	50/50	0.0619
207206	28TIN_W1-124	0.3008	50/50	0.3008
207400	28AA1-060 E	1.4422	Adder	1.7
207419	AB2-139 E	-0.0230	Adder	-0.03
218629	LAKENESP1_E	0.0254	Adder	0.03
218635	LAKENESP2_E	0.0174	Adder	0.02
901912	W1-112E OP1	0.5858	50/50	0.5858
901982	W1-119 E	0.6711	Adder	0.79
901992	W1-120E	0.6711	Adder	0.79
902032	W1-124E	2.8613	50/50	2.8613
902082	W1-129E	0.3515	Adder	0.41
902322	W2-019 E	0.4145	Adder	0.49
902952	W2-082 E OP1	1.2081	Adder	1.42
903982	W3-079 E	1.0162	50/50	1.0162
905252	W4-025 E	0.4990	Adder	0.59
905502	W4-060 E OP1	0.8295	Adder	0.98
907082	X1-037 E	1.3357	Adder	1.57
907272	X1-085 E	0.1787	Adder	0.21
912102	X4-015 E	0.3537	Adder	0.42
914092	Y2-051 E	0.7175	50/50	0.7175
917612	Z2-102 E	0.9891	Adder	1.16
919662	AA2-048 E	1.6167	50/50	1.6167
920732	AA2-184 E	3.1362	50/50	3.1362
923293	AB1-138 E	1.0602	Adder	1.25
923463	AB1-163 E	0.8313	Adder	0.98
923791	AB2-014	0.3176	50/50	0.3176
930001	AB1-001 C	0.0497	Adder	0.06
930002	AB1-001 E	0.0816	Adder	0.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934351	AD1-059	0.5843	50/50	0.5843
934841	AD1-113 (Suspended)	7.9547	Adder	9.36
939121	AE1-142 C O1	1.7149	50/50	1.7149
939122	AE1-142 E O1	2.4677	50/50	2.4677
939981	AE1-238 C	65.3760	50/50	65.3760
939982	AE1-238 E	171.7210	50/50	171.7210
940161	AE2-000 C O1	37.2990	Adder	43.88
940162	AE2-000 E O1	95.4353	Adder	112.28
940401	AE2-024 C O1	36.7833	50/50	36.7833
940402	AE2-024 E O1	172.2154	50/50	172.2154
940411	AE2-025 C	18.5682	50/50	18.5682
940412	AE2-025 E	86.9264	50/50	86.9264
940691	AE2-056 C	0.1985	Adder	0.23
940692	AE2-056 E	0.1737	Adder	0.2
940701	AE2-057 C	0.0420	Adder	0.05
940702	AE2-057 E	0.0420	Adder	0.05
940921	AE2-081 C	0.2109	Adder	0.25
940922	AE2-081 E	0.2171	Adder	0.26
943521	AF1-023	2.2710	50/50	2.2710
943561	AF1-027	0.1602	Adder	0.19
944332	AF1-101 E O1	93.5646	Adder	110.08
944611	AF1-126 C O1	5.5688	Adder	6.55
944612	AF1-126 E O1	22.2751	Adder	26.21
945201	AF1-185 1	0.4773	Adder	0.56
945211	AF1-185 2	0.1061	Adder	0.12
945571	AF1-222 C	40.7510	50/50	40.7510
945572	AF1-222 E	107.4346	50/50	107.4346
945951	AF1-260	0.2310	50/50	0.2310
957271	AF2-021 C	1.0341	Adder	2.3
957272	AF2-021 E	1.5511	Adder	3.44
957772	AF2-071 BAT	4.5447	Merchant Transmission	4.5447
957781	AF2-072 C	5.9240	50/50	5.9240
957782	AF2-072 E	5.9240	50/50	5.9240
958761	AF2-167 C O1	0.9127	50/50	0.9127
958762	AF2-167 E O1	1.2605	50/50	1.2605
959151	AF2-206 C O1	1.4888	50/50	1.4888
959152	AF2-206 E O1	2.0549	50/50	2.0549
959631	AF2-254 C	0.2603	Adder	0.58
959632	AF2-254 E	0.3595	Adder	0.8
961221	AF2-413 O1	14.0533	Adder	31.19
NEWTON	NEWTON	0.3503	Confirmed LTF	0.3503
FARMERCITY	FARMERCITY	0.0183	Confirmed LTF	0.0183
G-007A	G-007A	29.9160	Confirmed LTF	29.9160
CALDERWOOD	CALDERWOOD	0.1605	Confirmed LTF	0.1605
NY	NY	0.1167	Confirmed LTF	0.1167
PRAIRIE	PRAIRIE	0.8421	Confirmed LTF	0.8421
CHEOAH	CHEOAH	0.1617	Confirmed LTF	0.1617
EDWARDS	EDWARDS	0.1144	Confirmed LTF	0.1144
TILTON	TILTON	0.2060	Confirmed LTF	0.2060
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.1785	Confirmed LTF	0.1785
BLUEG	BLUEG	0.5677	Confirmed LTF	0.5677

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1820	Confirmed LTF	0.1820
CATAWBA	CATAWBA	0.1123	Confirmed LTF	0.1123

11.6.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99748910	206294	28LARRABEE	JCP&L	206318	28VANHISVL	JCP&L	1	JC-P7-1-JCC-230-11A	tower	869.0	117.63	118.83	DC	23.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0424	50/50	0.0424
206271	28MCRC/REC	0.9145	50/50	0.9145
206306	28LKWD G1	2.8690	50/50	2.8690
206308	28LKWD G2	2.8690	50/50	2.8690
206312	28LKWD G3	2.0785	50/50	2.0785
206366	28LKWD CT1	5.7827	50/50	5.7827
206367	28LKWD CT2	5.7827	50/50	5.7827
206368	28MDLSEXCO	0.3733	50/50	0.3733
206370	LKWD CT3	39.8860	50/50	39.8860
206412	28R11	37.7403	Adder	44.4
206414	28X4-005E	1.5766	Adder	1.85
206416	28MLH_W1-032	0.0224	50/50	0.0224
207143	28BYD_X4-031	0.2666	50/50	0.2666
207144	28HOW_X1-037	0.1404	50/50	0.1404
207145	28FRN_Y2-051	0.0344	50/50	0.0344
207148	28MDF_W3-079	0.0555	50/50	0.0555
207169	28W4-060COL	0.0756	50/50	0.0756
207204	28HOL_W1-112	0.0350	50/50	0.0350
207205	28MAN_W1-024	0.0295	50/50	0.0295
207206	28TIN_W1-124	0.1583	50/50	0.1583
207401	AA1-060 BAT	4.8934	50/50	4.8934
207419	AB2-139 E	0.0342	Adder	0.04
207420	AC1-207 C	0.4235	Adder	0.5
218629	LAKENESP1_E	0.0211	Adder	0.02
227928	V4-067E	-0.1852	Adder	-0.22
228261	V4-054E	-0.4079	Adder	-0.48
901032	W1-024E OP1	0.2812	50/50	0.2812
901112	W1-032 E OP1	0.2194	50/50	0.2194
901422	W1-113 E	0.3600	Adder	0.42
901912	W1-112E OP1	0.3311	50/50	0.3311
902032	W1-124E	1.5054	50/50	1.5054
902322	W2-019 E	-1.0038	Adder	-1.18
902912	W2-078 E	0.4030	Adder	0.47
903982	W3-079 E	0.5325	50/50	0.5325
905502	W4-060 E OP1	0.7149	50/50	0.7149
907082	X1-037 E	1.3280	50/50	1.3280
914092	Y2-051 E	0.3255	50/50	0.3255
919662	AA2-048 E	0.8471	50/50	0.8471
920732	AA2-184 E	1.6518	50/50	1.6518
923791	AB2-014	0.2786	50/50	0.2786
924701	AB2-122 C	-0.0800	Adder	-0.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927132	AC1-207 E	0.7087	Adder	0.83
934351	AD1-059	0.5126	50/50	0.5126
934841	AD1-113 (Suspended)	5.9122	Adder	6.96
938423	AE1-061 BAT	0.4923	Merchant Transmission	0.4923
939121	AE1-142 C O1	-2.7297	Adder	-3.21
939303	AE1-161 BAT	3.9475	Merchant Transmission	3.9475
939981	AE1-238 C	35.1225	50/50	35.1225
939982	AE1-238 E	92.2551	50/50	92.2551
940401	AE2-024 C O1	30.9622	50/50	30.9622
940402	AE2-024 E O1	144.9615	50/50	144.9615
940411	AE2-025 C	15.6297	50/50	15.6297
940412	AE2-025 E	73.1699	50/50	73.1699
940691	AE2-056 C	0.2011	50/50	0.2011
940692	AE2-056 E	0.1760	50/50	0.1760
940701	AE2-057 C	0.0614	50/50	0.0614
940702	AE2-057 E	0.0614	50/50	0.0614
940921	AE2-081 C	0.2137	50/50	0.2137
940922	AE2-081 E	0.2200	50/50	0.2200
940931	AE2-082 C	0.2988	Adder	0.35
940932	AE2-082 E	0.3163	Adder	0.37
943521	AF1-023	1.1962	50/50	1.1962
944613	AF1-126 BAT	99.8850	50/50	99.8850
945201	AF1-185 1	0.3547	Adder	0.42
945211	AF1-185 2	0.0788	Adder	0.09
945571	AF1-222 C	21.8930	50/50	21.8930
945572	AF1-222 E	57.7180	50/50	57.7180
945733	AF1-238 BAT	10.5812	Merchant Transmission	10.5812
945743	AF1-239 BAT	2.4897	Merchant Transmission	2.4897
945951	AF1-260	0.1210	50/50	0.1210
957223	AF2-016 BAT	38.7300	50/50	38.7300
957253	AF2-019 BAT	2.1919	Merchant Transmission	2.1919
957263	AF2-020 BAT	0.8196	Merchant Transmission	0.8196
957273	AF2-021 BAT	11.5068	50/50	11.5068
957283	AF2-022 BAT	2.3503	Merchant Transmission	2.3503
957313	AF2-025 BAT	2.6296	50/50	2.6296
957323	AF2-026 BAT	1.3776	Merchant Transmission	1.3776
957781	AF2-072 C	4.9865	50/50	4.9865
957782	AF2-072 E	4.9865	50/50	4.9865
958761	AF2-167 C O1	0.4801	50/50	0.4801
958762	AF2-167 E O1	0.6630	50/50	0.6630
959151	AF2-206 C O1	0.7283	50/50	0.7283
959152	AF2-206 E O1	1.0052	50/50	1.0052
961221	AF2-413 O1	10.4448	Adder	23.18
999905	MARINGEN 2	-0.4475	Adder	-0.53
999906	PVILLEG 2	-0.1924	Adder	-0.23
NEWTON	NEWTON	0.0580	Confirmed LTF	0.0580
FARMERCITY	FARMERCITY	0.0032	Confirmed LTF	0.0032
G-007A	G-007A	22.2344	Confirmed LTF	22.2344
VFT	VFT	23.2845	Confirmed LTF	23.2845
CALDERWOOD	CALDERWOOD	0.0403	Confirmed LTF	0.0403
PRAIRIE	PRAIRIE	0.1498	Confirmed LTF	0.1498
CHEOAH	CHEOAH	0.0410	Confirmed LTF	0.0410

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
EDWARDS	EDWARDS	0.0175	Confirmed LTF	0.0175
TILTON	TILTON	0.0315	Confirmed LTF	0.0315
GIBSON	GIBSON	0.0289	Confirmed LTF	0.0289
BLUEG	BLUEG	0.0920	Confirmed LTF	0.0920
TRIMBLE	TRIMBLE	0.0295	Confirmed LTF	0.0295
CATAWBA	CATAWBA	0.0367	Confirmed LTF	0.0367

11.6.9 Index 9

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99748952	206294	28LARRABEE	JCP&L	206286	28ATLANTIC	JCP&L	1	JC-P7-1-JCC-230-7A	tower	1147.0	110.74	111.76	DC	21.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206280	28LAKEHURS	0.7044	50/50	0.7044
206306	28LKWD G1	4.7672	50/50	4.7672
206308	28LKWD G2	4.7672	50/50	4.7672
206312	28LKWD G3	3.4537	50/50	3.4537
206325	28O C GEN (Deactivation : 17/09/2018)	53.7871	Adder	63.28
206366	28LKWD CT1	9.6088	50/50	9.6088
206367	28LKWD CT2	9.6088	50/50	9.6088
206370	LKWD CT3	66.2760	50/50	66.2760
206414	28X4-005E	-1.4909	Adder	-1.75
207400	28AA1-060 E	2.3247	Adder	2.73
219288	REEVES ST E	0.4290	Adder	0.5
219652	LUMB23SP1_E	0.0131	Adder	0.02
219656	LUMB23SP2_E	0.0131	Adder	0.02
219687	LUMSOLAR_N E	0.1321	Adder	0.16
227928	V4-067E	0.1312	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	10.3486	Adder	12.17
901982	W1-119 E	0.9920	Adder	1.17
901992	W1-120E	0.9920	Adder	1.17
902082	W1-129E	0.5222	Adder	0.61
902322	W2-019 E	0.6162	Adder	0.72
902432	W2-030 E	0.4676	Adder	0.55
902952	W2-082 E OP1	1.7929	Adder	2.11
903982	W3-079 E	0.9425	Adder	1.11
905252	W4-025 E	0.7412	Adder	0.87
907272	X1-085 E	0.3189	Adder	0.38
912102	X4-015 E	0.5252	Adder	0.62
914092	Y2-051 E	0.7290	Adder	0.86
917612	Z2-102 E	1.4620	Adder	1.72
919662	AA2-048 E	1.4995	Adder	1.76
923292	AB1-138 C	0.1799	50/50	0.1799
923293	AB1-138 E	1.7378	50/50	1.7378
923463	AB1-163 E	1.0949	Adder	1.29
923791	AB2-014	0.4630	50/50	0.4630
924701	AB2-122 C	0.0567	Adder	0.07
924702	AB2-122 E	0.0972	Adder	0.11
930001	AB1-001 C	0.0821	Adder	0.1
930002	AB1-001 E	0.1350	Adder	0.16
933962	AD1-019 E	0.6032	Adder	0.71
934351	AD1-059	0.8517	50/50	0.8517
938781	AE1-104 C O1	8.3532	Adder	9.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938782	AE1-104 E O1	21.3716	Adder	25.14
939121	AE1-142 C O1	2.4962	50/50	2.4962
939122	AE1-142 E O1	3.5920	50/50	3.5920
940161	AE2-000 C O1	54.8638	Adder	64.55
940162	AE2-000 E O1	140.3777	Adder	165.15
940361	AE2-020 C	9.0646	Adder	10.66
940362	AE2-020 E	42.4411	Adder	49.93
940371	AE2-021 C	9.0646	Adder	10.66
940372	AE2-021 E	42.4411	Adder	49.93
940381	AE2-022 C	5.2877	Adder	6.22
940382	AE2-022 E	24.7573	Adder	29.13
940401	AE2-024 C O1	53.6040	50/50	53.6040
940402	AE2-024 E O1	250.9682	50/50	250.9682
940411	AE2-025 C	27.0593	50/50	27.0593
940412	AE2-025 E	126.6772	50/50	126.6772
942101	AE2-222 C O1	6.8134	Adder	8.02
942102	AE2-222 E O1	17.1158	Adder	20.14
942381	AE2-251 C	28.7165	Adder	33.78
942382	AE2-251 E	73.4773	Adder	86.44
943561	AF1-027	0.2583	Adder	0.3
943732	AF1-041 E	0.1929	Adder	0.23
944332	AF1-101 E O1	137.6261	Adder	161.91
944611	AF1-126 C O1	8.4197	Adder	9.91
944612	AF1-126 E O1	33.6787	Adder	39.62
945201	AF1-185 1	-0.3355	Adder	-0.39
945211	AF1-185 2	-0.0745	Adder	-0.09
945951	AF1-260	0.2142	Adder	0.25
957221	AF2-016 C	4.9222	Adder	10.93
957222	AF2-016 E	7.3832	Adder	16.39
957251	AF2-019 C	0.5147	Adder	1.14
957252	AF2-019 E	0.7720	Adder	1.71
957271	AF2-021 C	1.5552	Adder	3.45
957272	AF2-021 E	2.3328	Adder	5.18
957311	AF2-025 C	0.3349	Adder	0.74
957312	AF2-025 E	0.5024	Adder	1.12
957781	AF2-072 C	8.6330	50/50	8.6330
957782	AF2-072 E	8.6330	50/50	8.6330
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.1678	Adder	0.37
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	19.9626	Adder	44.31
959151	AF2-206 C O1	0.7607	Adder	1.69
959152	AF2-206 E O1	1.0499	Adder	2.33
959631	AF2-254 C	0.3860	Adder	0.86
959632	AF2-254 E	0.5330	Adder	1.18
961222	AF2-413 BAT	11.6202	Merchant Transmission	11.6202
999905	MARINGEN 2	0.3164	Adder	0.37
999906	PVILLEG 2	0.1361	Adder	0.16
NEWTON	NEWTON	0.0741	Confirmed LTF	0.0741
FARMERCITY	FARMERCITY	0.0038	Confirmed LTF	0.0038
CALDERWOOD	CALDERWOOD	0.0253	Confirmed LTF	0.0253
NY	NY	0.9628	Confirmed LTF	0.9628

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	0.1705	Confirmed LTF	0.1705
O-066	O-066	18.1574	Confirmed LTF	18.1574
CHEOAH	CHEOAH	0.0250	Confirmed LTF	0.0250
EDWARDS	EDWARDS	0.0248	Confirmed LTF	0.0248
TILTON	TILTON	0.0447	Confirmed LTF	0.0447
G-007	G-007	9.1198	Confirmed LTF	9.1198
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0377	Confirmed LTF	0.0377
BLUEG	BLUEG	0.1198	Confirmed LTF	0.1198
TRIMBLE	TRIMBLE	0.0384	Confirmed LTF	0.0384
CATAWBA	CATAWBA	0.0126	Confirmed LTF	0.0126

11.6.10 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
99747565	206300	28OCEANVW	JCP&L	206286	28ATLANTIC	JCP&L	Y	JC-P2-3-JCC-230-47C	breaker	869.0	122.58	123.67	DC	17.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206325	28O C GEN (Deactivation : 17/09/2018)	14.1055	Adder	16.59
206370	LKWD CT3	14.6472	Adder	17.23
206414	28X4-005E	-1.2116	Adder	-1.43
901982	W1-119 E	0.2691	Adder	0.32
901992	W1-120E	0.2691	Adder	0.32
902082	W1-129E	0.1429	Adder	0.17
902322	W2-019 E	0.1688	Adder	0.2
902952	W2-082 E OP1	0.4897	Adder	0.58
903982	W3-079 E	0.3005	Adder	0.35
905252	W4-025 E	0.2028	Adder	0.24
912102	X4-015 E	0.1436	Adder	0.17
914092	Y2-051 E	0.2289	Adder	0.27
917612	Z2-102 E	0.3966	Adder	0.47
919662	AA2-048 E	0.4781	Adder	0.56
923293	AB1-138 E	0.3972	Adder	0.47
923463	AB1-163 E	0.3033	Adder	0.36
939121	AE1-142 C O1	0.5557	Adder	0.65
939122	AE1-142 E O1	0.7997	Adder	0.94
939981	AE1-238 C	149.9557	50/50	149.9557
939982	AE1-238 E	393.8838	50/50	393.8838
940161	AE2-000 C O1	14.3879	Adder	16.93
940162	AE2-000 E O1	36.8137	Adder	43.31
940401	AE2-024 C O1	11.8052	Adder	13.89
940402	AE2-024 E O1	55.2705	Adder	65.02
940411	AE2-025 C	5.9592	Adder	7.01
940412	AE2-025 E	27.8980	Adder	32.82
944332	AF1-101 E O1	36.0921	Adder	42.46
944611	AF1-126 C O1	2.2538	Adder	2.65
944612	AF1-126 E O1	9.0151	Adder	10.61
945201	AF1-185 1	-0.2726	Adder	-0.32
945211	AF1-185 2	-0.0606	Adder	-0.07
945571	AF1-222 C	93.4724	50/50	93.4724
945572	AF1-222 E	246.4273	50/50	246.4273
945951	AF1-260	0.0683	Adder	0.08
957271	AF2-021 C	0.4140	Adder	0.92
957272	AF2-021 E	0.6209	Adder	1.38
957781	AF2-072 C	1.0077	Adder	2.24
957782	AF2-072 E	1.0077	Adder	2.24
959151	AF2-206 C O1	0.2322	Adder	0.52
959152	AF2-206 E O1	0.3204	Adder	0.71

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959631	AF2-254 C	0.1052	Adder	0.23
959632	AF2-254 E	0.1453	Adder	0.32
961222	AF2-413 BAT	9.4433	Merchant Transmission	9.4433
WEC	WEC	0.0167	Confirmed LTF	0.0167
LGEE	LGEE	0.0314	Confirmed LTF	0.0314
CPL	CPL	0.0476	Confirmed LTF	0.0476
CBM-W2	CBM-W2	0.4668	Confirmed LTF	0.4668
NY	NY	0.3943	Confirmed LTF	0.3943
CBM-W1	CBM-W1	0.6505	Confirmed LTF	0.6505
TVA	TVA	0.0840	Confirmed LTF	0.0840
O-066	O-066	8.8502	Confirmed LTF	8.8502
CBM-S2	CBM-S2	0.3930	Confirmed LTF	0.3930
CBM-S1	CBM-S1	0.5027	Confirmed LTF	0.5027
G-007	G-007	7.4121	Confirmed LTF	7.4121
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
MEC	MEC	0.0874	Confirmed LTF	0.0874

11.6.11 Index 11

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
99747568	206300	28OCEANVW	JCP&L	206286	28ATLANTIC	JCP&L	X	JC-P2-3-JCC-230-47E	breaker	869.0	122.36	123.44	DC	17.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206325	28O C GEN (Deactivation : 17/09/2018)	14.0750	Adder	16.56
206370	LKWD CT3	14.6166	Adder	17.2
206414	28X4-005E	-1.2087	Adder	-1.42
901982	W1-119 E	0.2682	Adder	0.32
901992	W1-120E	0.2682	Adder	0.32
902082	W1-129E	0.1424	Adder	0.17
902322	W2-019 E	0.1682	Adder	0.2
902952	W2-082 E OP1	0.4880	Adder	0.57
903982	W3-079 E	0.2952	Adder	0.35
905252	W4-025 E	0.2021	Adder	0.24
912102	X4-015 E	0.1431	Adder	0.17
914092	Y2-051 E	0.2253	Adder	0.27
917612	Z2-102 E	0.3953	Adder	0.47
919662	AA2-048 E	0.4696	Adder	0.55
923293	AB1-138 E	0.3954	Adder	0.47
923463	AB1-163 E	0.3011	Adder	0.35
939121	AE1-142 C O1	0.5544	Adder	0.65
939122	AE1-142 E O1	0.7978	Adder	0.94
939981	AE1-238 C	149.8500	50/50	149.8500
939982	AE1-238 E	393.6060	50/50	393.6060
940161	AE2-000 C O1	14.3567	Adder	16.89
940162	AE2-000 E O1	36.7339	Adder	43.22
940401	AE2-024 C O1	11.7827	Adder	13.86
940402	AE2-024 E O1	55.1655	Adder	64.9
940411	AE2-025 C	5.9479	Adder	7.0
940412	AE2-025 E	27.8450	Adder	32.76
944332	AF1-101 E O1	36.0138	Adder	42.37
944611	AF1-126 C O1	2.2487	Adder	2.65
944612	AF1-126 E O1	8.9947	Adder	10.58
945201	AF1-185 1	-0.2720	Adder	-0.32
945211	AF1-185 2	-0.0604	Adder	-0.07
945571	AF1-222 C	93.4065	50/50	93.4065
945572	AF1-222 E	246.2535	50/50	246.2535
945951	AF1-260	0.0671	Adder	0.08
957271	AF2-021 C	0.4130	Adder	0.92
957272	AF2-021 E	0.6195	Adder	1.38
957781	AF2-072 C	1.0057	Adder	2.23
957782	AF2-072 E	1.0057	Adder	2.23
959151	AF2-206 C O1	0.2286	Adder	0.51
959152	AF2-206 E O1	0.3155	Adder	0.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959631	AF2-254 C	0.1049	Adder	0.23
959632	AF2-254 E	0.1448	Adder	0.32
961222	AF2-413 BAT	9.4207	Merchant Transmission	9.4207
WEC	WEC	0.0170	Confirmed LTF	0.0170
LGEE	LGEE	0.0314	Confirmed LTF	0.0314
CPL	CPL	0.0476	Confirmed LTF	0.0476
CBM-W2	CBM-W2	0.4668	Confirmed LTF	0.4668
NY	NY	0.3932	Confirmed LTF	0.3932
CBM-W1	CBM-W1	0.6505	Confirmed LTF	0.6505
TVA	TVA	0.0840	Confirmed LTF	0.0840
O-066	O-066	8.8301	Confirmed LTF	8.8301
CBM-S2	CBM-S2	0.3930	Confirmed LTF	0.3930
CBM-S1	CBM-S1	0.5027	Confirmed LTF	0.5027
G-007	G-007	7.3934	Confirmed LTF	7.3934
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
MEC	MEC	0.0874	Confirmed LTF	0.0874

11.6.12 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
99748917	206309	28SMITHBRG	JCP&L	206326	28E WINDSR	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	1394.0	123.38	126.87	DC	107.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	2.3721	Adder	2.79
206325	28O C GEN (Deactivation : 17/09/2018)	64.4379	Adder	75.81
206327	28S RIV G1	5.3776	50/50	5.3776
206328	28S RIV G2	5.3776	50/50	5.3776
206329	28S RIV G3	7.2729	50/50	7.2729
206358	28PARLN1&2	3.4465	50/50	3.4465
206359	28PARLN3&4	4.1949	50/50	4.1949
206362	28RDOAKCT1	12.9099	50/50	12.9099
206363	28RDOAKCT2	12.9105	50/50	12.9105
206364	28RDOAKCT3	12.9105	50/50	12.9105
206365	28RDOAKST1	18.1035	50/50	18.1035
206370	LKWD CT3	68.1156	Adder	80.14
206403	28W4-009	53.7411	50/50	53.7411
206412	28R11	189.3056	50/50	189.3056
206414	28X4-005E	7.3054	Adder	8.59
206416	28MLH_W1-032	0.0918	50/50	0.0918
207143	28BYD_X4-031	0.7202	Adder	0.85
207204	28HOL_W1-112	0.1130	50/50	0.1130
207205	28MAN_W1-024	0.1145	50/50	0.1145
207206	28TIN_W1-124	0.4746	50/50	0.4746
207400	28AA1-060 E	2.9586	Adder	3.48
207419	AB2-139 E	0.1151	Adder	0.14
207420	AC1-207 C	1.5463	Adder	1.82
901032	W1-024E OP1	1.0914	50/50	1.0914
901112	W1-032 E OP1	0.9004	50/50	0.9004
901422	W1-113 E	1.0170	Adder	1.2
901912	W1-112E OP1	1.0693	50/50	1.0693
901982	W1-119 E	1.2144	Adder	1.43
901992	W1-120E	1.2144	Adder	1.43
902032	W1-124E	4.5144	50/50	4.5144
902082	W1-129E	0.6405	Adder	0.75
902322	W2-019 E	0.7560	Adder	0.89
902912	W2-078 E	1.1379	Adder	1.34
902952	W2-082 E OP1	2.1981	Adder	2.59
903982	W3-079 E	1.5243	Adder	1.79
905252	W4-025 E	0.9090	Adder	1.07
905502	W4-060 E OP1	2.2546	Adder	2.65
907082	X1-037 E	3.8087	Adder	4.48
907272	X1-085 E	0.4226	Adder	0.5
912102	X4-015 E	0.6440	Adder	0.76
914092	Y2-051 E	1.0859	Adder	1.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
917612	Z2-102 E	1.7898	Adder	2.11
919662	AA2-048 E	2.4250	Adder	2.85
920732	AA2-184 E	4.9886	50/50	4.9886
923293	AB1-138 E	1.8809	Adder	2.21
923463	AB1-163 E	1.4823	Adder	1.74
927132	AC1-207 E	2.5877	Adder	3.04
934841	AD1-113 (Suspended)	27.3953	Adder	32.23
939121	AE1-142 C O1	2.5710	Adder	3.02
939122	AE1-142 E O1	3.6998	Adder	4.35
939981	AE1-238 C	97.0650	50/50	97.0650
939982	AE1-238 E	254.9574	50/50	254.9574
940161	AE2-000 C O1	65.7278	Adder	77.33
940162	AE2-000 E O1	168.1749	Adder	197.85
940401	AE2-024 C O1	55.1044	Adder	64.83
940402	AE2-024 E O1	257.9928	Adder	303.52
940411	AE2-025 C	27.8167	Adder	32.73
940412	AE2-025 E	130.2229	Adder	153.2
940691	AE2-056 C	0.5782	Adder	0.68
940692	AE2-056 E	0.5060	Adder	0.6
940701	AE2-057 C	0.1819	Adder	0.21
940702	AE2-057 E	0.1819	Adder	0.21
940921	AE2-081 C	0.6144	Adder	0.72
940922	AE2-081 E	0.6325	Adder	0.74
940931	AE2-082 C	1.0972	Adder	1.29
940932	AE2-082 E	1.1617	Adder	1.37
943521	AF1-023	3.6124	50/50	3.6124
943561	AF1-027	0.3287	Adder	0.39
944332	AF1-101 E O1	164.8785	Adder	193.97
944611	AF1-126 C O1	9.7933	Adder	11.52
944612	AF1-126 E O1	39.1731	Adder	46.09
945201	AF1-185 1	1.6437	Adder	1.93
945211	AF1-185 2	0.3653	Adder	0.43
945571	AF1-222 C	60.5039	50/50	60.5039
945572	AF1-222 E	159.5102	50/50	159.5102
945951	AF1-260	0.3464	Adder	0.41
957271	AF2-021 C	1.8205	Adder	4.04
957272	AF2-021 E	2.7307	Adder	6.06
957772	AF2-071 BAT	13.2145	Merchant Transmission	13.2145
957781	AF2-072 C	4.7036	Adder	10.44
957782	AF2-072 E	4.7036	Adder	10.44
958761	AF2-167 C O1	1.4470	50/50	1.4470
958762	AF2-167 E O1	1.9982	50/50	1.9982
959151	AF2-206 C O1	1.1875	Adder	2.64
959152	AF2-206 E O1	1.6390	Adder	3.64
959631	AF2-254 C	0.4730	Adder	1.05
959632	AF2-254 E	0.6532	Adder	1.45
961221	AF2-413 O1	48.3983	Adder	107.43
NEWTON	NEWTON	0.7360	Confirmed LTF	0.7360
FARMERCITY	FARMERCITY	0.0383	Confirmed LTF	0.0383
G-007A	G-007A	103.0278	Confirmed LTF	103.0278
CALDERWOOD	CALDERWOOD	0.3370	Confirmed LTF	0.3370
NY	NY	0.7266	Confirmed LTF	0.7266

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	1.7668	Confirmed LTF	1.7668
O-066	O-066	11.7869	Confirmed LTF	11.7869
CHEOAH	CHEOAH	0.3393	Confirmed LTF	0.3393
EDWARDS	EDWARDS	0.2401	Confirmed LTF	0.2401
TILTON	TILTON	0.4322	Confirmed LTF	0.4322
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.3740	Confirmed LTF	0.3740
BLUEG	BLUEG	1.1892	Confirmed LTF	1.1892
TRIMBLE	TRIMBLE	0.3812	Confirmed LTF	0.3812
CATAWBA	CATAWBA	0.2356	Confirmed LTF	0.2356

11.6.13 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
99747358	206314	28RED OAKA	JCP&L	206305	28RAR RVR	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	183.92	191.7	DC	71.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0638	50/50	0.0638
206271	28MCRC/REC	1.8961	50/50	1.8961
206325	28O C GEN (Deactivation : 17/09/2018)	29.8008	Adder	35.06
206327	28S RIV G1	7.6605	50/50	7.6605
206328	28S RIV G2	7.6605	50/50	7.6605
206329	28S RIV G3	10.3604	50/50	10.3604
206358	28PARLN1&2	4.6499	50/50	4.6499
206359	28PARLN3&4	5.6596	50/50	5.6596
206363	28RDOAKCT2	18.9520	50/50	18.9520
206364	28RDOAKCT3	18.9520	50/50	18.9520
206367	28LKWD CT2	5.2498	50/50	5.2498
206370	LKWD CT3	30.7785	Adder	36.21
206412	28R11	269.6672	50/50	269.6672
207143	28BYD_X4-031	0.4961	50/50	0.4961
207144	28HOW_X1-037	0.2268	50/50	0.2268
207145	28FRN_Y2-051	0.0645	50/50	0.0645
207148	28MDF_W3-079	0.0919	50/50	0.0919
207204	28HOL_W1-112	0.0798	50/50	0.0798
207206	28TIN_W1-124	0.3250	50/50	0.3250
207400	28AA1-060 E	1.6319	Adder	1.92
901032	W1-024E OP1	0.1988	Adder	0.23
901112	W1-032 E OP1	0.1686	Adder	0.2
901912	W1-112E OP1	0.7547	50/50	0.7547
901982	W1-119 E	0.5979	Adder	0.7
901992	W1-120E	0.5979	Adder	0.7
902032	W1-124E	3.0910	50/50	3.0910
902082	W1-129E	0.3212	Adder	0.38
902322	W2-019 E	0.3802	Adder	0.45
902952	W2-082 E OP1	1.0986	Adder	1.29
903982	W3-079 E	0.8808	50/50	0.8808
905252	W4-025 E	0.4559	Adder	0.54
907082	X1-037 E	2.1448	50/50	2.1448
907272	X1-085 E	0.2549	Adder	0.3
912102	X4-015 E	0.3225	Adder	0.38
914092	Y2-051 E	0.6096	50/50	0.6096
917612	Z2-102 E	0.8816	Adder	1.04
919662	AA2-048 E	1.4013	50/50	1.4013
920732	AA2-184 E	3.4228	50/50	3.4228
923293	AB1-138 E	0.8740	Adder	1.03
923463	AB1-163 E	0.7094	Adder	0.83
939121	AE1-142 C O1	1.1767	Adder	1.38

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939122	AE1-142 E O1	1.6934	Adder	1.99
939981	AE1-238 C	67.0095	50/50	67.0095
939982	AE1-238 E	176.0116	50/50	176.0116
940161	AE2-000 C O1	30.3974	Adder	35.76
940162	AE2-000 E O1	77.7765	Adder	91.5
940401	AE2-024 C O1	29.1258	50/50	29.1258
940402	AE2-024 E O1	136.3639	50/50	136.3639
940411	AE2-025 C	14.7027	50/50	14.7027
940412	AE2-025 E	68.8302	50/50	68.8302
940691	AE2-056 C	0.3227	50/50	0.3227
940692	AE2-056 E	0.2824	50/50	0.2824
940701	AE2-057 C	0.0925	50/50	0.0925
940702	AE2-057 E	0.0925	50/50	0.0925
940921	AE2-081 C	0.3429	50/50	0.3429
940922	AE2-081 E	0.3530	50/50	0.3530
943521	AF1-023	2.4786	50/50	2.4786
943561	AF1-027	0.1813	Adder	0.21
944332	AF1-101 E O1	76.2520	Adder	89.71
944611	AF1-126 C O1	4.8386	Adder	5.69
944612	AF1-126 E O1	19.3545	Adder	22.77
945201	AF1-185 1	-1.0990	Adder	-1.29
945211	AF1-185 2	-0.2442	Adder	-0.29
945571	AF1-222 C	41.7693	50/50	41.7693
945572	AF1-222 E	110.1189	50/50	110.1189
945951	AF1-260	0.2002	50/50	0.2002
957271	AF2-021 C	0.8816	Adder	1.96
957272	AF2-021 E	1.3224	Adder	2.94
957781	AF2-072 C	4.6907	50/50	4.6907
957782	AF2-072 E	4.6907	50/50	4.6907
958761	AF2-167 C O1	1.0116	50/50	1.0116
958762	AF2-167 E O1	1.3970	50/50	1.3970
959151	AF2-206 C O1	1.2810	50/50	1.2810
959152	AF2-206 E O1	1.7681	50/50	1.7681
959631	AF2-254 C	0.2355	Adder	0.52
959632	AF2-254 E	0.3253	Adder	0.72
961222	AF2-413 BAT	71.8325	50/50	71.8325
NEWTON	NEWTON	0.2697	Confirmed LTF	0.2697
FARMERCITY	FARMERCITY	0.0139	Confirmed LTF	0.0139
CALDERWOOD	CALDERWOOD	0.1143	Confirmed LTF	0.1143
NY	NY	1.5451	Confirmed LTF	1.5451
PRAIRIE	PRAIRIE	0.6406	Confirmed LTF	0.6406
O-066	O-066	33.8016	Confirmed LTF	33.8016
CHEOAH	CHEOAH	0.1146	Confirmed LTF	0.1146
EDWARDS	EDWARDS	0.0889	Confirmed LTF	0.0889
TILTON	TILTON	0.1600	Confirmed LTF	0.1600
G-007	G-007	29.8813	Confirmed LTF	29.8813
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1376	Confirmed LTF	0.1376
BLUEG	BLUEG	0.4375	Confirmed LTF	0.4375
TRIMBLE	TRIMBLE	0.1402	Confirmed LTF	0.1402
CATAWBA	CATAWBA	0.0742	Confirmed LTF	0.0742

11.6.14 Index 14

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
99747348	206315	28RED OAKB	JCP&L	206305	28RAR RVR	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	187.55	195.31	DC	71.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0637	50/50	0.0637
206271	28MCRC/REC	1.8899	50/50	1.8899
206325	28O C GEN (Deactivation : 17/09/2018)	29.6422	Adder	34.87
206327	28S RIV G1	7.5013	50/50	7.5013
206328	28S RIV G2	7.5013	50/50	7.5013
206329	28S RIV G3	10.1452	50/50	10.1452
206358	28PARLN1&2	4.7138	50/50	4.7138
206359	28PARLN3&4	5.7374	50/50	5.7374
206362	28RDOAKCT1	18.9925	50/50	18.9925
206365	28RDOAKST1	26.6331	50/50	26.6331
206367	28LKWD CT2	5.2228	50/50	5.2228
206370	LKWD CT3	30.6204	Adder	36.02
206412	28R11	264.0660	50/50	264.0660
207143	28BYD_X4-031	0.4945	50/50	0.4945
207144	28HOW_X1-037	0.2261	50/50	0.2261
207145	28FRN_Y2-051	0.0642	50/50	0.0642
207148	28MDF_W3-079	0.0914	50/50	0.0914
207204	28HOL_W1-112	0.0800	50/50	0.0800
207206	28TIN_W1-124	0.3239	50/50	0.3239
207400	28AA1-060 E	1.6224	Adder	1.91
901032	W1-024E OP1	0.1978	Adder	0.23
901112	W1-032 E OP1	0.1677	Adder	0.2
901912	W1-112E OP1	0.7563	50/50	0.7563
901982	W1-119 E	0.5946	Adder	0.7
901992	W1-120E	0.5946	Adder	0.7
902032	W1-124E	3.0807	50/50	3.0807
902082	W1-129E	0.3194	Adder	0.38
902322	W2-019 E	0.3780	Adder	0.44
902952	W2-082 E OP1	1.0924	Adder	1.29
903982	W3-079 E	0.8768	50/50	0.8768
905252	W4-025 E	0.4533	Adder	0.53
907082	X1-037 E	2.1390	50/50	2.1390
907272	X1-085 E	0.2533	Adder	0.3
912102	X4-015 E	0.3207	Adder	0.38
914092	Y2-051 E	0.6068	50/50	0.6068
917612	Z2-102 E	0.8767	Adder	1.03
919662	AA2-048 E	1.3949	50/50	1.3949
920732	AA2-184 E	3.4120	50/50	3.4120
923293	AB1-138 E	0.8696	Adder	1.02
923463	AB1-163 E	0.7058	Adder	0.83
939121	AE1-142 C O1	1.1706	Adder	1.38

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939122	AE1-142 E O1	1.6845	Adder	1.98
939981	AE1-238 C	66.6945	50/50	66.6945
939982	AE1-238 E	175.1842	50/50	175.1842
940161	AE2-000 C O1	30.2356	Adder	35.57
940162	AE2-000 E O1	77.3626	Adder	91.01
940401	AE2-024 C O1	28.9783	50/50	28.9783
940402	AE2-024 E O1	135.6734	50/50	135.6734
940411	AE2-025 C	14.6282	50/50	14.6282
940412	AE2-025 E	68.4817	50/50	68.4817
940691	AE2-056 C	0.3219	50/50	0.3219
940692	AE2-056 E	0.2816	50/50	0.2816
940701	AE2-057 C	0.0923	50/50	0.0923
940702	AE2-057 E	0.0923	50/50	0.0923
940921	AE2-081 C	0.3420	50/50	0.3420
940922	AE2-081 E	0.3520	50/50	0.3520
943521	AF1-023	2.4708	50/50	2.4708
943561	AF1-027	0.1803	Adder	0.21
944332	AF1-101 E O1	75.8462	Adder	89.23
944611	AF1-126 C O1	4.8106	Adder	5.66
944612	AF1-126 E O1	19.2423	Adder	22.64
945201	AF1-185 1	-1.0957	Adder	-1.29
945211	AF1-185 2	-0.2435	Adder	-0.29
945571	AF1-222 C	41.5729	50/50	41.5729
945572	AF1-222 E	109.6013	50/50	109.6013
945951	AF1-260	0.1993	50/50	0.1993
957271	AF2-021 C	0.8766	Adder	1.95
957272	AF2-021 E	1.3148	Adder	2.92
957781	AF2-072 C	4.6670	50/50	4.6670
957782	AF2-072 E	4.6670	50/50	4.6670
958761	AF2-167 C O1	1.0089	50/50	1.0089
958762	AF2-167 E O1	1.3932	50/50	1.3932
959151	AF2-206 C O1	1.2750	50/50	1.2750
959152	AF2-206 E O1	1.7598	50/50	1.7598
959631	AF2-254 C	0.2342	Adder	0.52
959632	AF2-254 E	0.3234	Adder	0.72
961222	AF2-413 BAT	71.6175	50/50	71.6175
NEWTON	NEWTON	0.2944	Confirmed LTF	0.2944
FARMERCITY	FARMERCITY	0.0152	Confirmed LTF	0.0152
CALDERWOOD	CALDERWOOD	0.1257	Confirmed LTF	0.1257
NY	NY	1.5528	Confirmed LTF	1.5528
PRAIRIE	PRAIRIE	0.7000	Confirmed LTF	0.7000
O-066	O-066	33.8352	Confirmed LTF	33.8352
CHEOAH	CHEOAH	0.1261	Confirmed LTF	0.1261
EDWARDS	EDWARDS	0.0969	Confirmed LTF	0.0969
TILTON	TILTON	0.1745	Confirmed LTF	0.1745
G-007	G-007	29.7939	Confirmed LTF	29.7939
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1501	Confirmed LTF	0.1501
BLUEG	BLUEG	0.4774	Confirmed LTF	0.4774
TRIMBLE	TRIMBLE	0.1530	Confirmed LTF	0.1530
CATAWBA	CATAWBA	0.0822	Confirmed LTF	0.0822

11.6.15 Index 15

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99748841	206316	28WINDSOR	JCP&L	219752	CLRKSVLL_1	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	813.0	143.49	148.55	DC	49.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0694	50/50	0.0694
206271	28MCRC/REC	1.0625	Adder	1.25
206325	28O C GEN (Deactivation : 17/09/2018)	28.6601	Adder	33.72
206350	28RRCT1&2	2.7606	50/50	2.7606
206351	28RRCT3&4	2.5850	50/50	2.5850
206368	28MDLSEXCO	0.6934	50/50	0.6934
206370	LKWD CT3	30.0186	Adder	35.32
206403	28W4-009	24.7252	50/50	24.7252
206412	28R11	73.7117	Adder	86.72
206414	28X4-005E	3.9542	50/50	3.9542
206416	28MLH_W1-032	0.0405	50/50	0.0405
207143	28BYD_X4-031	0.3251	Adder	0.38
207152	28NPK_W1-113	0.1291	50/50	0.1291
207162	28APLW2-078	0.1445	50/50	0.1445
207169	28W4-060COL	0.1306	50/50	0.1306
207205	28MAN_W1-024	0.0566	50/50	0.0566
207400	28AA1-060 E	2.4091	Adder	2.83
207419	AB2-139 E	0.0979	50/50	0.0979
207420	AC1-207 C	1.1005	50/50	1.1005
219679	NRGCENTER E	-0.3194	Adder	-0.38
901032	W1-024E OP1	0.5401	50/50	0.5401
901112	W1-032 E OP1	0.3973	50/50	0.3973
901422	W1-113 E	1.2313	50/50	1.2313
901912	W1-112E OP1	0.4117	Adder	0.48
901982	W1-119 E	0.6145	Adder	0.72
901992	W1-120E	0.6145	Adder	0.72
902032	W1-124E	1.7175	Adder	2.02
902082	W1-129E	0.3351	Adder	0.39
902322	W2-019 E	0.3976	Adder	0.47
902912	W2-078 E	1.3793	50/50	1.3793
902952	W2-082 E OP1	1.1430	Adder	1.34
903982	W3-079 E	0.6787	Adder	0.8
905252	W4-025 E	0.4756	Adder	0.56
905502	W4-060 E OP1	1.2350	50/50	1.2350
907082	X1-037 E	1.7601	Adder	2.07
907272	X1-085 E	0.4738	Adder	0.56
912102	X4-015 E	0.3361	Adder	0.4
914092	Y2-051 E	0.4813	Adder	0.57
917612	Z2-102 E	0.9063	Adder	1.07
919662	AA2-048 E	1.0798	Adder	1.27
919712	AA2-058 E	-0.1713	Adder	-0.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919802	AA2-066 E	-0.3194	Adder	-0.38
920732	AA2-184 E	1.8998	Adder	2.24
923293	AB1-138 E	0.8424	Adder	0.99
923463	AB1-163 E	0.6827	Adder	0.8
927132	AC1-207 E	1.8416	50/50	1.8416
934841	AD1-113 (Suspended)	14.8283	50/50	14.8283
937523	AD2-213 BAT	1.8028	Merchant Transmission	1.8028
939121	AE1-142 C O1	1.1388	Adder	1.34
939122	AE1-142 E O1	1.6388	Adder	1.93
939981	AE1-238 C	36.7276	Adder	43.21
939982	AE1-238 E	96.4713	Adder	113.5
940161	AE2-000 C O1	29.2338	Adder	34.39
940162	AE2-000 E O1	74.7993	Adder	88.0
940401	AE2-024 C O1	24.2410	Adder	28.52
940402	AE2-024 E O1	113.4939	Adder	133.52
940411	AE2-025 C	12.2369	Adder	14.4
940412	AE2-025 E	57.2865	Adder	67.4
940691	AE2-056 C	0.2675	Adder	0.31
940692	AE2-056 E	0.2340	Adder	0.28
940701	AE2-057 C	0.1006	50/50	0.1006
940702	AE2-057 E	0.1006	50/50	0.1006
940921	AE2-081 C	0.2842	Adder	0.33
940922	AE2-081 E	0.2925	Adder	0.34
940931	AE2-082 C	0.7622	50/50	0.7622
940932	AE2-082 E	0.8071	50/50	0.8071
943521	AF1-023	1.3757	Adder	1.62
943561	AF1-027	0.2677	Adder	0.31
944332	AF1-101 E O1	73.3331	Adder	86.27
944432	AF1-108 BAT	1.8624	Merchant Transmission	1.8624
944442	AF1-109 BAT	5.4184	50/50	5.4184
944611	AF1-126 C O1	4.2207	Adder	4.97
944612	AF1-126 E O1	16.8827	Adder	19.86
945201	AF1-185 1	0.8897	50/50	0.8897
945211	AF1-185 2	0.1977	50/50	0.1977
945571	AF1-222 C	22.8936	Adder	26.93
945572	AF1-222 E	60.3558	Adder	71.01
945723	AF1-237 BAT	38.8180	Merchant Transmission	38.8180
945951	AF1-260	0.1543	Adder	0.18
957271	AF2-021 C	0.8268	Adder	1.84
957272	AF2-021 E	1.2401	Adder	2.75
957771	AF2-071	34.0690	50/50	34.0690
957781	AF2-072 C	2.0691	Adder	4.59
957782	AF2-072 E	2.0691	Adder	4.59
958761	AF2-167 C O1	0.2920	Adder	0.65
958762	AF2-167 E O1	0.4033	Adder	0.9
959151	AF2-206 C O1	0.5284	Adder	1.17
959152	AF2-206 E O1	0.7294	Adder	1.62
959631	AF2-254 C	0.2443	Adder	0.54
959632	AF2-254 E	0.3374	Adder	0.75
961221	AF2-413 O1	49.4275	50/50	49.4275
NEWTON	NEWTON	0.2590	Confirmed LTF	0.2590
FARMERCITY	FARMERCITY	0.0134	Confirmed LTF	0.0134

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
G-007A	G-007A	47.4010	Confirmed LTF	47.4010
CALDERWOOD	CALDERWOOD	0.1193	Confirmed LTF	0.1193
NY	NY	0.2135	Confirmed LTF	0.2135
PRAIRIE	PRAIRIE	0.6199	Confirmed LTF	0.6199
O-066	O-066	7.3450	Confirmed LTF	7.3450
CHEOAH	CHEOAH	0.1201	Confirmed LTF	0.1201
EDWARDS	EDWARDS	0.0843	Confirmed LTF	0.0843
TILTON	TILTON	0.1518	Confirmed LTF	0.1518
GIBSON	GIBSON	0.1316	Confirmed LTF	0.1316
BLUEG	BLUEG	0.4184	Confirmed LTF	0.4184
TRIMBLE	TRIMBLE	0.1341	Confirmed LTF	0.1341
CATAWBA	CATAWBA	0.0837	Confirmed LTF	0.0837

11.6.16 Index 16

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
99748793	206318	28VANHISVL	JCP&L	206294	28LARRABEE	JCP&L	1	JC-P7-1-JCC-230-12	tower	869.0	162.37	163.66	DC	23.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206280	28LAKEHURS	0.4830	50/50	0.4830
206325	28O C GEN (Deactivation : 17/09/2018)	88.2925	50/50	88.2925
206360	28O CRK C1	2.3035	50/50	2.3035
206361	28O CRK C2	1.5234	50/50	1.5234
206414	28X4-005E	-1.6118	Adder	-1.9
207149	28UPF_X1-085	0.0619	50/50	0.0619
207150	28HAN_X4-015	0.1045	50/50	0.1045
207157	28PEM_W1-119	0.1924	50/50	0.1924
207158	28PEM_W1-120	0.1924	50/50	0.1924
207160	28EGP_W2-019	0.1252	50/50	0.1252
207164	28NHV_W2-082	0.3595	50/50	0.3595
207171	28DIX_Z2-102	0.2843	50/50	0.2843
207207	28JCB_W1-129	0.1042	50/50	0.1042
207208	28JCB_W4-025	0.1425	50/50	0.1425
207400	28AA1-060 E	4.3434	50/50	4.3434
207419	AB2-139 E	-0.0351	Adder	-0.04
207420	AC1-207 C	-0.4347	Adder	-0.51
218661	EHAMPSOLAR E	0.1854	Adder	0.22
219273	CLEANLIGHT E	0.1592	Adder	0.19
219287	REEVES ST C	0.1035	50/50	0.1035
219288	REEVES ST E	0.9792	50/50	0.9792
219292	REEVESSO E	0.0625	Adder	0.07
219582	COXSCOSP1_E	0.0074	Adder	0.01
219614	COXSCOSP2_E	0.0074	Adder	0.01
219628	LUMB23SP1_C	0.0032	50/50	0.0032
219652	LUMB23SP1_E	0.0299	50/50	0.0299
219653	LUMB23SP2_C	0.0032	50/50	0.0032
219656	LUMB23SP2_E	0.0299	50/50	0.0299
219686	LUMSOLAR_N C	0.0322	50/50	0.0322
219687	LUMSOLAR_N E	0.3015	50/50	0.3015
219689	LUMSOLAR_S E	0.1836	Adder	0.22
227842	MARINGEN	0.0903	50/50	0.0903
227927	V4-067C	0.0238	50/50	0.0238
227928	V4-067E	0.2280	50/50	0.2280
228014	PVILLEG	0.0312	50/50	0.0312
228102	BLE#2 ST (Deactivation : 30/04/2019)	15.4699	Adder	18.2
228712	V2-041E	0.1928	Adder	0.23
228729	W2-030 C	0.0855	50/50	0.0855
228731	V3-036	0.1311	50/50	0.1311
901982	W1-119 E	1.8235	50/50	1.8235

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
901992	W1-120E	1.8235	50/50	1.8235
902082	W1-129E	0.9851	50/50	0.9851
902092	W1-130E	0.4495	Adder	0.53
902322	W2-019 E	1.1672	50/50	1.1672
902432	W2-030 E	0.8149	50/50	0.8149
902952	W2-082 E OP1	3.3663	50/50	3.3663
905252	W4-025 E	1.3983	50/50	1.3983
907272	X1-085 E	0.5854	50/50	0.5854
912102	X4-015 E	0.9888	50/50	0.9888
917612	Z2-102 E	2.6889	50/50	2.6889
919663	AA2-048 BAT	1.0046	50/50	1.0046
923292	AB1-138 C	0.1233	50/50	0.1233
923293	AB1-138 E	1.1915	50/50	1.1915
923463	AB1-163 E	0.4827	Adder	0.57
923532	AB1-169AC	43.5804	Adder	51.27
924531	AB2-102 C	17.3139	Adder	20.37
924532	AB2-102 E	0.3848	Adder	0.45
924701	AB2-122 C	0.0985	50/50	0.0985
924702	AB2-122 E	0.1689	50/50	0.1689
930001	AB1-001 C	0.1410	50/50	0.1410
930002	AB1-001 E	0.2318	50/50	0.2318
932361	AC2-050 C O1	0.3452	Adder	0.41
932362	AC2-050 E O1	0.5632	Adder	0.66
933962	AD1-019 E	1.0502	50/50	1.0502
938421	AE1-061 C	0.2168	Adder	0.26
938422	AE1-061 E	0.2168	Adder	0.26
938781	AE1-104 C O1	12.4870	Adder	14.69
938782	AE1-104 E O1	31.9479	Adder	37.59
939121	AE1-142 C O1	3.2823	50/50	3.2823
939122	AE1-142 E O1	4.7233	50/50	4.7233
939501	AE1-179 C O1	2.5151	Adder	2.96
939502	AE1-179 E O1	1.7749	Adder	2.09
940001	AE1-240 C O1	2.0842	Adder	2.45
940002	AE1-240 E O1	1.4877	Adder	1.75
940161	AE2-000 C O1	90.0599	50/50	90.0599
940162	AE2-000 E O1	230.4323	50/50	230.4323
940361	AE2-020 C	15.6946	50/50	15.6946
940362	AE2-020 E	73.4832	50/50	73.4832
940371	AE2-021 C	15.6946	50/50	15.6946
940372	AE2-021 E	73.4832	50/50	73.4832
940381	AE2-022 C	9.1552	50/50	9.1552
940382	AE2-022 E	42.8652	50/50	42.8652
940691	AE2-056 C	-0.1907	Adder	-0.22
940701	AE2-057 C	-0.0568	Adder	-0.07
940921	AE2-081 C	-0.2026	Adder	-0.24
942101	AE2-222 C O1	11.8580	50/50	11.8580
942102	AE2-222 E O1	29.7880	50/50	29.7880
942381	AE2-251 C	49.7201	50/50	49.7201
942382	AE2-251 E	127.2199	50/50	127.2199
943561	AF1-027	0.4826	50/50	0.4826
943732	AF1-041 E	0.3355	50/50	0.3355
944332	AF1-101 E O1	225.9156	50/50	225.9156

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
944611	AF1-126 C O1	20.0270	50/50	20.0270
944612	AF1-126 E O1	80.1080	50/50	80.1080
945201	AF1-185 1	-0.3626	Adder	-0.43
945211	AF1-185 2	-0.0806	Adder	-0.09
945731	AF1-238 C	3.7281	Adder	4.39
945732	AF1-238 E	5.5922	Adder	6.58
945741	AF1-239 C	0.8772	Adder	1.03
945742	AF1-239 E	1.3158	Adder	1.55
957221	AF2-016 C	7.2997	Adder	16.2
957222	AF2-016 E	24.3054	50/50	24.3054
957251	AF2-019 C	0.7769	Adder	1.72
957252	AF2-019 E	1.1653	Adder	2.59
957271	AF2-021 C	4.8613	50/50	4.8613
957272	AF2-021 E	7.2919	50/50	7.2919
957281	AF2-022 C	0.8305	Adder	1.84
957282	AF2-022 E	1.2458	Adder	2.77
957311	AF2-025 C	1.1005	50/50	1.1005
957312	AF2-025 E	1.6507	50/50	1.6507
957321	AF2-026 C	0.4863	Adder	1.08
957322	AF2-026 E	0.7294	Adder	1.62
957783	AF2-072 BAT	10.1220	50/50	10.1220
958781	AF2-169 C O1 (Withdrawn : 06/09/2020)	0.2508	Adder	0.56
958782	AF2-169 E O1 (Withdrawn : 06/09/2020)	29.8415	Adder	66.24
958831	AF2-174 C	0.2224	Adder	0.49
958832	AF2-174 E	0.3072	Adder	0.68
959631	AF2-254 C	1.3600	50/50	1.3600
959632	AF2-254 E	1.8782	50/50	1.8782
961222	AF2-413 BAT	12.5623	Merchant Transmission	12.5623
999905	MARINGEN 2	0.5509	50/50	0.5509
999906	PVILLEG 2	0.2369	50/50	0.2369
WEC	WEC	0.0161	Confirmed LTF	0.0161
LGEE	LGEE	0.0314	Confirmed LTF	0.0314
CPL	CPL	0.0840	Confirmed LTF	0.0840
CBM-W2	CBM-W2	0.5324	Confirmed LTF	0.5324
NY	NY	1.3720	Confirmed LTF	1.3720
CBM-W1	CBM-W1	0.5755	Confirmed LTF	0.5755
TVA	TVA	0.1050	Confirmed LTF	0.1050
O-066	O-066	25.2269	Confirmed LTF	25.2269
CBM-S2	CBM-S2	0.6416	Confirmed LTF	0.6416
CBM-S1	CBM-S1	0.6134	Confirmed LTF	0.6134
G-007	G-007	9.8602	Confirmed LTF	9.8602
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
MEC	MEC	0.0890	Confirmed LTF	0.0890

11.6.17 Index 17

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
99748851	206326	28E WINDSR	JCP&L	206316	28WINDSOR	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	869.0	150.02	152.12	DC	40.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.0954	50/50	1.0954
206325	28O C GEN (Deactivation : 17/09/2018)	25.9754	Adder	30.56
206327	28S RIV G1	2.0450	50/50	2.0450
206328	28S RIV G2	2.0450	50/50	2.0450
206329	28S RIV G3	2.7657	50/50	2.7657
206358	28PARLN1&2	1.3138	50/50	1.3138
206359	28PARLN3&4	1.5991	50/50	1.5991
206362	28RDOAKCT1	4.9022	50/50	4.9022
206363	28RDOAKCT2	4.9037	50/50	4.9037
206364	28RDOAKCT3	4.9037	50/50	4.9037
206365	28RDOAKST1	6.8743	50/50	6.8743
206370	LKWD CT3	27.3275	Adder	32.15
206403	28W4-009	20.3057	50/50	20.3057
206412	28R11	71.9884	50/50	71.9884
206414	28X4-005E	2.7603	Adder	3.25
206416	28MLH_W1-032	0.0371	50/50	0.0371
207143	28BYD_X4-031	0.3287	50/50	0.3287
207145	28FRN_Y2-051	0.0537	50/50	0.0537
207204	28HOL_W1-112	0.0437	50/50	0.0437
207206	28TIN_W1-124	0.1865	50/50	0.1865
219679	NRGCENTER E	-0.3115	Adder	-0.37
901032	W1-024E OP1	0.3137	Adder	0.37
901112	W1-032 E OP1	0.3634	50/50	0.3634
901912	W1-112E OP1	0.4135	50/50	0.4135
902032	W1-124E	1.7737	50/50	1.7737
903982	W3-079 E	0.6001	Adder	0.71
905502	W4-060 E OP1	0.8375	Adder	0.99
907082	X1-037 E	1.4307	Adder	1.68
914092	Y2-051 E	0.5075	50/50	0.5075
919662	AA2-048 E	0.9547	Adder	1.12
919712	AA2-058 E	-0.1675	Adder	-0.2
919802	AA2-066 E	-0.3115	Adder	-0.37
920732	AA2-184 E	1.9574	50/50	1.9574
923293	AB1-138 E	0.7323	Adder	0.86
923463	AB1-163 E	0.5446	Adder	0.64
934841	AD1-113 (Suspended)	10.3511	Adder	12.18
937523	AD2-213 BAT	1.7470	Merchant Transmission	1.7470
939121	AE1-142 C O1	1.0266	Adder	1.21
939122	AE1-142 E O1	1.4773	Adder	1.74
939981	AE1-238 C	38.4300	50/50	38.4300
939982	AE1-238 E	100.9428	50/50	100.9428

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940161	AE2-000 C O1	26.4954	Adder	31.17
940162	AE2-000 E O1	67.7926	Adder	79.76
940401	AE2-024 C O1	26.0212	50/50	26.0212
940402	AE2-024 E O1	121.8285	50/50	121.8285
940411	AE2-025 C	13.1355	50/50	13.1355
940412	AE2-025 E	61.4934	50/50	61.4934
940691	AE2-056 C	0.2169	Adder	0.26
940692	AE2-056 E	0.1898	Adder	0.22
940701	AE2-057 C	0.0666	Adder	0.08
940702	AE2-057 E	0.0666	Adder	0.08
940921	AE2-081 C	0.2305	Adder	0.27
940922	AE2-081 E	0.2373	Adder	0.28
940931	AE2-082 C	0.2437	Adder	0.29
940932	AE2-082 E	0.2580	Adder	0.3
943521	AF1-023	1.4174	50/50	1.4174
944332	AF1-101 E O1	66.4638	Adder	78.19
944432	AF1-108 BAT	1.8054	Merchant Transmission	1.8054
944442	AF1-109 BAT	5.2970	50/50	5.2970
944611	AF1-126 C O1	3.4646	Adder	4.08
944612	AF1-126 E O1	13.8584	Adder	16.3
945201	AF1-185 1	0.6211	Adder	0.73
945211	AF1-185 2	0.1380	Adder	0.16
945571	AF1-222 C	23.9547	50/50	23.9547
945572	AF1-222 E	63.1533	50/50	63.1533
945723	AF1-237 BAT	37.9640	50/50	37.9640
945951	AF1-260	0.1364	Adder	0.16
957271	AF2-021 C	0.7496	Adder	1.66
957272	AF2-021 E	1.1243	Adder	2.5
957772	AF2-071 BAT	64.5140	50/50	64.5140
957781	AF2-072 C	4.1908	50/50	4.1908
957782	AF2-072 E	4.1908	50/50	4.1908
958761	AF2-167 C O1	0.5678	50/50	0.5678
958762	AF2-167 E O1	0.7842	50/50	0.7842
959151	AF2-206 C O1	0.4680	Adder	1.04
959152	AF2-206 E O1	0.6460	Adder	1.43
961221	AF2-413 O1	18.2869	Adder	40.59
NEWTON	NEWTON	0.2031	Confirmed LTF	0.2031
FARMERCITY	FARMERCITY	0.0106	Confirmed LTF	0.0106
G-007A	G-007A	38.9282	Confirmed LTF	38.9282
CALDERWOOD	CALDERWOOD	0.0939	Confirmed LTF	0.0939
NY	NY	0.1493	Confirmed LTF	0.1493
PRAIRIE	PRAIRIE	0.4882	Confirmed LTF	0.4882
O-066	O-066	6.3370	Confirmed LTF	6.3370
CHEOAH	CHEOAH	0.0946	Confirmed LTF	0.0946
EDWARDS	EDWARDS	0.0661	Confirmed LTF	0.0661
TILTON	TILTON	0.1191	Confirmed LTF	0.1191
GIBSON	GIBSON	0.1032	Confirmed LTF	0.1032
BLUEG	BLUEG	0.3281	Confirmed LTF	0.3281
TRIMBLE	TRIMBLE	0.1052	Confirmed LTF	0.1052
CATAWBA	CATAWBA	0.0661	Confirmed LTF	0.0661

11.6.18 Index 18

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
99747487	206410	28R11RINGB	JCP&L	206315	28RED OAKB	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	143.74	151.44	DC	71.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0645	50/50	0.0645
206271	28MCRC/REC	1.9041	50/50	1.9041
206325	28O C GEN (Deactivation : 17/09/2018)	30.0588	Adder	35.36
206327	28S RIV G1	7.5286	50/50	7.5286
206328	28S RIV G2	7.5286	50/50	7.5286
206329	28S RIV G3	10.1820	50/50	10.1820
206358	28PARLN1&2	4.7313	50/50	4.7313
206359	28PARLN3&4	5.7586	50/50	5.7586
206366	28LKWD CT1	5.2860	50/50	5.2860
206367	28LKWD CT2	5.2860	50/50	5.2860
206370	LKWD CT3	30.9910	Adder	36.46
206412	28R11	265.0252	50/50	265.0252
207143	28BYD_X4-031	0.4989	50/50	0.4989
207144	28HOW_X1-037	0.2286	50/50	0.2286
207145	28FRN_Y2-051	0.0649	50/50	0.0649
207148	28MDF_W3-079	0.0924	50/50	0.0924
207204	28HOL_W1-112	0.0805	50/50	0.0805
207206	28TIN_W1-124	0.3263	50/50	0.3263
207400	28AA1-060 E	1.6558	Adder	1.95
901032	W1-024E OP1	0.2024	Adder	0.24
901112	W1-032 E OP1	0.1711	Adder	0.2
901912	W1-112E OP1	0.7617	50/50	0.7617
901982	W1-119 E	0.6048	Adder	0.71
901992	W1-120E	0.6048	Adder	0.71
902032	W1-124E	3.1036	50/50	3.1036
902082	W1-129E	0.3251	Adder	0.38
902322	W2-019 E	0.3849	Adder	0.45
902952	W2-082 E OP1	1.1119	Adder	1.31
903982	W3-079 E	0.8864	50/50	0.8864
905252	W4-025 E	0.4614	Adder	0.54
907082	X1-037 E	2.1621	50/50	2.1621
907272	X1-085 E	0.2591	Adder	0.3
912102	X4-015 E	0.3264	Adder	0.38
914092	Y2-051 E	0.6136	50/50	0.6136
917612	Z2-102 E	0.8917	Adder	1.05
919662	AA2-048 E	1.4102	50/50	1.4102
920732	AA2-184 E	3.4373	50/50	3.4373
923293	AB1-138 E	0.8807	Adder	1.04
923463	AB1-163 E	0.7151	Adder	0.84
939121	AE1-142 C O1	1.1858	Adder	1.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939122	AE1-142 E O1	1.7064	Adder	2.01
939981	AE1-238 C	67.1850	50/50	67.1850
939982	AE1-238 E	176.4726	50/50	176.4726
940161	AE2-000 C O1	30.6605	Adder	36.07
940162	AE2-000 E O1	78.4497	Adder	92.29
940401	AE2-024 C O1	29.3167	50/50	29.3167
940402	AE2-024 E O1	137.2578	50/50	137.2578
940411	AE2-025 C	14.7991	50/50	14.7991
940412	AE2-025 E	69.2814	50/50	69.2814
940691	AE2-056 C	0.3254	50/50	0.3254
940692	AE2-056 E	0.2847	50/50	0.2847
940701	AE2-057 C	0.0934	50/50	0.0934
940702	AE2-057 E	0.0934	50/50	0.0934
940921	AE2-081 C	0.3457	50/50	0.3457
940922	AE2-081 E	0.3559	50/50	0.3559
943521	AF1-023	2.4891	50/50	2.4891
943561	AF1-027	0.1840	Adder	0.22
944332	AF1-101 E O1	76.9120	Adder	90.48
944611	AF1-126 C O1	4.9032	Adder	5.77
944612	AF1-126 E O1	19.6129	Adder	23.07
945201	AF1-185 1	-1.0874	Adder	-1.28
945211	AF1-185 2	-0.2416	Adder	-0.28
945571	AF1-222 C	41.8786	50/50	41.8786
945572	AF1-222 E	110.4073	50/50	110.4073
945951	AF1-260	0.2015	50/50	0.2015
957271	AF2-021 C	0.8923	Adder	1.98
957272	AF2-021 E	1.3384	Adder	2.97
957781	AF2-072 C	4.7215	50/50	4.7215
957782	AF2-072 E	4.7215	50/50	4.7215
958761	AF2-167 C O1	1.0162	50/50	1.0162
958762	AF2-167 E O1	1.4034	50/50	1.4034
959151	AF2-206 C O1	1.2891	50/50	1.2891
959152	AF2-206 E O1	1.7793	50/50	1.7793
959631	AF2-254 C	0.2383	Adder	0.53
959632	AF2-254 E	0.3291	Adder	0.73
961222	AF2-413 BAT	71.0725	50/50	71.0725
NEWTON	NEWTON	0.0591	Confirmed LTF	0.0591
FARMERCITY	FARMERCITY	0.0030	Confirmed LTF	0.0030
CALDERWOOD	CALDERWOOD	0.0169	Confirmed LTF	0.0169
NY	NY	1.4306	Confirmed LTF	1.4306
PRAIRIE	PRAIRIE	0.1343	Confirmed LTF	0.1343
O-066	O-066	32.3635	Confirmed LTF	32.3635
CHEOAH	CHEOAH	0.0165	Confirmed LTF	0.0165
EDWARDS	EDWARDS	0.0203	Confirmed LTF	0.0203
TILTON	TILTON	0.0365	Confirmed LTF	0.0365
G-007	G-007	29.5662	Confirmed LTF	29.5662
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0306	Confirmed LTF	0.0306
BLUEG	BLUEG	0.0972	Confirmed LTF	0.0972
TRIMBLE	TRIMBLE	0.0312	Confirmed LTF	0.0312
CATAWBA	CATAWBA	0.0056	Confirmed LTF	0.0056

11.6.19 Index 19

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
99747458	206411	28R11RINGA	JCP&L	206314	28RED OAKA	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	147.57	155.29	DC	71.38

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0645	50/50	0.0645
206271	28MCRC/REC	1.9079	50/50	1.9079
206325	28O C GEN (Deactivation : 17/09/2018)	30.1486	Adder	35.47
206327	28S RIV G1	7.6831	50/50	7.6831
206328	28S RIV G2	7.6831	50/50	7.6831
206329	28S RIV G3	10.3909	50/50	10.3909
206358	28PARLN1&2	4.6644	50/50	4.6644
206359	28PARLN3&4	5.6773	50/50	5.6773
206366	28LKWD CT1	5.3022	50/50	5.3022
206367	28LKWD CT2	5.3022	50/50	5.3022
206370	LKWD CT3	31.0862	Adder	36.57
206412	28R11	270.4636	50/50	270.4636
207143	28BYD_X4-031	0.4998	50/50	0.4998
207144	28HOW_X1-037	0.2288	50/50	0.2288
207145	28FRN_Y2-051	0.0650	50/50	0.0650
207148	28MDF_W3-079	0.0927	50/50	0.0927
207204	28HOL_W1-112	0.0803	50/50	0.0803
207206	28TIN_W1-124	0.3270	50/50	0.3270
207400	28AA1-060 E	1.6597	Adder	1.95
901032	W1-024E OP1	0.2026	Adder	0.24
901112	W1-032 E OP1	0.1715	Adder	0.2
901912	W1-112E OP1	0.7592	50/50	0.7592
901982	W1-119 E	0.6064	Adder	0.71
901992	W1-120E	0.6064	Adder	0.71
902032	W1-124E	3.1101	50/50	3.1101
902082	W1-129E	0.3259	Adder	0.38
902322	W2-019 E	0.3859	Adder	0.45
902952	W2-082 E OP1	1.1148	Adder	1.31
903982	W3-079 E	0.8888	50/50	0.8888
905252	W4-025 E	0.4626	Adder	0.54
907082	X1-037 E	2.1639	50/50	2.1639
907272	X1-085 E	0.2597	Adder	0.31
912102	X4-015 E	0.3273	Adder	0.39
914092	Y2-051 E	0.6153	50/50	0.6153
917612	Z2-102 E	0.8941	Adder	1.05
919662	AA2-048 E	1.4141	50/50	1.4141
920732	AA2-184 E	3.4439	50/50	3.4439
923293	AB1-138 E	0.8833	Adder	1.04
923463	AB1-163 E	0.7171	Adder	0.84
939121	AE1-142 C O1	1.1894	Adder	1.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939122	AE1-142 E O1	1.7115	Adder	2.01
939981	AE1-238 C	67.4190	50/50	67.4190
939982	AE1-238 E	177.0872	50/50	177.0872
940161	AE2-000 C O1	30.7521	Adder	36.18
940162	AE2-000 E O1	78.6841	Adder	92.57
940401	AE2-024 C O1	29.4083	50/50	29.4083
940402	AE2-024 E O1	137.6866	50/50	137.6866
940411	AE2-025 C	14.8453	50/50	14.8453
940412	AE2-025 E	69.4978	50/50	69.4978
940691	AE2-056 C	0.3256	50/50	0.3256
940692	AE2-056 E	0.2849	50/50	0.2849
940701	AE2-057 C	0.0934	50/50	0.0934
940702	AE2-057 E	0.0934	50/50	0.0934
940921	AE2-081 C	0.3460	50/50	0.3460
940922	AE2-081 E	0.3562	50/50	0.3562
943521	AF1-023	2.4939	50/50	2.4939
943561	AF1-027	0.1844	Adder	0.22
944332	AF1-101 E O1	77.1418	Adder	90.76
944611	AF1-126 C O1	4.9160	Adder	5.78
944612	AF1-126 E O1	19.6639	Adder	23.13
945201	AF1-185 1	-1.0921	Adder	-1.28
945211	AF1-185 2	-0.2427	Adder	-0.29
945571	AF1-222 C	42.0245	50/50	42.0245
945572	AF1-222 E	110.7919	50/50	110.7919
945951	AF1-260	0.2020	50/50	0.2020
957271	AF2-021 C	0.8947	Adder	1.99
957272	AF2-021 E	1.3421	Adder	2.98
957781	AF2-072 C	4.7362	50/50	4.7362
957782	AF2-072 E	4.7362	50/50	4.7362
958761	AF2-167 C O1	1.0177	50/50	1.0177
958762	AF2-167 E O1	1.4054	50/50	1.4054
959151	AF2-206 C O1	1.2928	50/50	1.2928
959152	AF2-206 E O1	1.7843	50/50	1.7843
959631	AF2-254 C	0.2390	Adder	0.53
959632	AF2-254 E	0.3300	Adder	0.73
961222	AF2-413 BAT	71.3775	50/50	71.3775
NEWTON	NEWTON	0.0752	Confirmed LTF	0.0752
FARMERCITY	FARMERCITY	0.0038	Confirmed LTF	0.0038
CALDERWOOD	CALDERWOOD	0.0244	Confirmed LTF	0.0244
NY	NY	1.4439	Confirmed LTF	1.4439
PRAIRIE	PRAIRIE	0.1731	Confirmed LTF	0.1731
O-066	O-066	32.5853	Confirmed LTF	32.5853
CHEOAH	CHEOAH	0.0240	Confirmed LTF	0.0240
EDWARDS	EDWARDS	0.0256	Confirmed LTF	0.0256
TILTON	TILTON	0.0460	Confirmed LTF	0.0460
G-007	G-007	29.6930	Confirmed LTF	29.6930
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0388	Confirmed LTF	0.0388
BLUEG	BLUEG	0.1233	Confirmed LTF	0.1233
TRIMBLE	TRIMBLE	0.0395	Confirmed LTF	0.0395
CATAWBA	CATAWBA	0.0109	Confirmed LTF	0.0109

11.6.20 Index 20

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
99747641	206411	28R11RINGA	JCP&L	206410	28R11RINGB	JCP&L	1	JC-P2-3-JCC-230-85	breaker	999.0	102.04	107.04	DC	53.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.4091	50/50	1.4091
206325	28O C GEN (Deactivation : 17/09/2018)	23.1188	Adder	27.2
206327	28S RIV G1	8.6181	50/50	8.6181
206328	28S RIV G2	8.6181	50/50	8.6181
206329	28S RIV G3	11.6556	50/50	11.6556
206358	28PARLN1&2	1.8467	50/50	1.8467
206359	28PARLN3&4	2.2477	50/50	2.2477
206366	28LKWD CT1	4.0644	50/50	4.0644
206367	28LKWD CT2	4.0644	50/50	4.0644
206370	LKWD CT3	23.8289	Adder	28.03
206412	28R11	303.3800	50/50	303.3800
206414	28X4-005E	-3.6460	Adder	-4.29
207143	28BYD_X4-031	0.3675	50/50	0.3675
207144	28HOW_X1-037	0.1627	50/50	0.1627
207145	28FRN_Y2-051	0.0494	50/50	0.0494
207148	28MDF_W3-079	0.0703	50/50	0.0703
207204	28HOL_W1-112	0.0498	50/50	0.0498
207206	28TIN_W1-124	0.2425	50/50	0.2425
207400	28AA1-060 E	1.2508	Adder	1.47
901112	W1-032 E OP1	0.1275	Adder	0.15
901912	W1-112E OP1	0.4712	50/50	0.4712
901982	W1-119 E	0.4629	Adder	0.54
901992	W1-120E	0.4629	Adder	0.54
902032	W1-124E	2.3060	50/50	2.3060
902082	W1-129E	0.2486	Adder	0.29
902322	W2-019 E	0.2943	Adder	0.35
902952	W2-082 E OP1	0.8506	Adder	1.0
903982	W3-079 E	0.6743	50/50	0.6743
905252	W4-025 E	0.3529	Adder	0.42
907082	X1-037 E	1.5389	50/50	1.5389
912102	X4-015 E	0.2497	Adder	0.29
914092	Y2-051 E	0.4677	50/50	0.4677
917612	Z2-102 E	0.6826	Adder	0.8
919662	AA2-048 E	1.0727	50/50	1.0727
920732	AA2-184 E	2.5394	50/50	2.5394
923293	AB1-138 E	0.6751	Adder	0.79
923463	AB1-163 E	0.5464	Adder	0.64
939121	AE1-142 C O1	0.9115	Adder	1.07
939122	AE1-142 E O1	1.3117	Adder	1.54
939981	AE1-238 C	52.0088	50/50	52.0088
939982	AE1-238 E	136.6097	50/50	136.6097

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940161	AE2-000 C O1	23.5816	Adder	27.74
940162	AE2-000 E O1	60.3371	Adder	70.98
940401	AE2-024 C O1	22.5425	50/50	22.5425
940402	AE2-024 E O1	105.5415	50/50	105.5415
940411	AE2-025 C	11.3794	50/50	11.3794
940412	AE2-025 E	53.2725	50/50	53.2725
940691	AE2-056 C	0.2312	50/50	0.2312
940692	AE2-056 E	0.2023	50/50	0.2023
940701	AE2-057 C	0.0546	Adder	0.06
940702	AE2-057 E	0.0546	Adder	0.06
940921	AE2-081 C	0.2457	50/50	0.2457
940922	AE2-081 E	0.2529	50/50	0.2529
943521	AF1-023	1.8388	50/50	1.8388
943561	AF1-027	0.1390	Adder	0.16
944332	AF1-101 E O1	59.1544	Adder	69.59
944611	AF1-126 C O1	3.7719	Adder	4.44
944612	AF1-126 E O1	15.0875	Adder	17.75
945201	AF1-185 1	-0.8203	Adder	-0.97
945211	AF1-185 2	-0.1823	Adder	-0.21
945571	AF1-222 C	32.4188	50/50	32.4188
945572	AF1-222 E	85.4677	50/50	85.4677
945951	AF1-260	0.1532	50/50	0.1532
957271	AF2-021 C	0.6869	Adder	1.52
957272	AF2-021 E	1.0303	Adder	2.29
957781	AF2-072 C	3.6305	50/50	3.6305
957782	AF2-072 E	3.6305	50/50	3.6305
958761	AF2-167 C O1	0.7407	50/50	0.7407
958762	AF2-167 E O1	1.0228	50/50	1.0228
959151	AF2-206 C O1	0.9812	50/50	0.9812
959152	AF2-206 E O1	1.3543	50/50	1.3543
959631	AF2-254 C	0.1823	Adder	0.4
959632	AF2-254 E	0.2518	Adder	0.56
961222	AF2-413 BAT	53.6175	50/50	53.6175
WEC	WEC	0.0028	Confirmed LTF	0.0028
LGEE	LGEE	0.0063	Confirmed LTF	0.0063
CPL	CPL	0.0351	Confirmed LTF	0.0351
CBM-W2	CBM-W2	0.1392	Confirmed LTF	0.1392
NY	NY	1.0546	Confirmed LTF	1.0546
CBM-W1	CBM-W1	0.0751	Confirmed LTF	0.0751
TVA	TVA	0.0322	Confirmed LTF	0.0322
O-066	O-066	24.1651	Confirmed LTF	24.1651
CBM-S2	CBM-S2	0.2543	Confirmed LTF	0.2543
CBM-S1	CBM-S1	0.1789	Confirmed LTF	0.1789
G-007	G-007	22.3049	Confirmed LTF	22.3049
MADISON	MADISON	0.0081	Confirmed LTF	0.0081
MEC	MEC	0.0191	Confirmed LTF	0.0191

11.6.21 Index 21

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
99747612	218313	GREENBK_W	PSE&G	206239	28GILLET W	JCP&L	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	802.0	104.74	113.64	DC	76.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	0.9228	Adder	1.09
206325	28O C GEN (Deactivation : 17/09/2018)	18.3131	Adder	21.54
206350	28RRCT1&2	4.2559	50/50	4.2559
206351	28RRCT3&4	3.9852	50/50	3.9852
206362	28RDOAKCT1	8.6956	50/50	8.6956
206363	28RDOAKCT2	8.6770	50/50	8.6770
206364	28RDOAKCT3	8.6770	50/50	8.6770
206365	28RDOAKST1	12.1939	50/50	12.1939
206370	LKWD CT3	18.7782	Adder	22.09
206403	28W4-009	38.1177	50/50	38.1177
206412	28R11	106.7845	Adder	125.63
206414	28X4-005E	6.0960	50/50	6.0960
206638	28PEAPACK	-0.2974	Adder	-0.35
207143	28BYD_X4-031	0.2558	Adder	0.3
207400	28AA1-060 E	1.2488	Adder	1.47
207419	AB2-139 E	0.0432	Adder	0.05
207420	AC1-207 C	0.5477	Adder	0.64
218628	LAKENESP1_C	0.0145	50/50	0.0145
218629	LAKENESP1_E	0.1364	50/50	0.1364
218635	LAKENESP2_E	0.1365	50/50	0.1365
219630	LAKENESP2_C	0.0145	50/50	0.0145
901032	W1-024E OP1	0.2433	Adder	0.29
901112	W1-032 E OP1	0.1486	Adder	0.17
901422	W1-113 E	0.4974	Adder	0.59
901912	W1-112E OP1	0.4205	Adder	0.49
901982	W1-119 E	0.3899	Adder	0.46
901992	W1-120E	0.3899	Adder	0.46
902032	W1-124E	1.4954	Adder	1.76
902082	W1-129E	0.2125	Adder	0.25
902322	W2-019 E	0.2522	Adder	0.3
902912	W2-078 E	0.5571	Adder	0.66
902952	W2-082 E OP1	0.7252	Adder	0.85
903982	W3-079 E	0.4537	Adder	0.53
905252	W4-025 E	0.3017	Adder	0.35
905502	W4-060 E OP1	1.2070	Adder	1.42
907082	X1-037 E	1.2672	Adder	1.49
907272	X1-085 E	0.2181	Adder	0.26
912102	X4-015 E	0.2132	Adder	0.25
914092	Y2-051 E	0.3153	Adder	0.37
917612	Z2-102 E	0.5751	Adder	0.68
919662	AA2-048 E	0.7218	Adder	0.85

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
920732	AA2-184 E	1.6645	Adder	1.96
923293	AB1-138 E	0.5378	Adder	0.63
923463	AB1-163 E	0.4409	Adder	0.52
927132	AC1-207 E	0.9166	Adder	1.08
933332	AC2-145 E (Suspended)	-0.0136	Adder	-0.02
933333	AC2-145 BAT (Suspended)	0.0160	Merchant Transmission	0.0160
934841	AD1-113 (Suspended)	22.8600	50/50	22.8600
937513	AD2-210 BAT (Suspended)	0.1990	Merchant Transmission	0.1990
938601	AE1-081 C	-0.0569	Adder	-0.07
939121	AE1-142 C O1	0.7210	Adder	0.85
939122	AE1-142 E O1	1.0376	Adder	1.22
939981	AE1-238 C	31.2043	Adder	36.71
939982	AE1-238 E	81.9634	Adder	96.43
940161	AE2-000 C O1	18.6797	Adder	21.98
940162	AE2-000 E O1	47.7949	Adder	56.23
940401	AE2-024 C O1	15.0787	Adder	17.74
940402	AE2-024 E O1	70.5970	Adder	83.06
940411	AE2-025 C	7.6117	Adder	8.95
940412	AE2-025 E	35.6341	Adder	41.92
940691	AE2-056 C	0.1919	Adder	0.23
940692	AE2-056 E	0.1679	Adder	0.2
940701	AE2-057 C	0.0601	Adder	0.07
940702	AE2-057 E	0.0601	Adder	0.07
940921	AE2-081 C	0.2039	Adder	0.24
940922	AE2-081 E	0.2099	Adder	0.25
940931	AE2-082 C	0.3579	Adder	0.42
940932	AE2-082 E	0.3789	Adder	0.45
942253	AE2-237 BAT	7.4697	Merchant Transmission	7.4697
943521	AF1-023	1.2053	Adder	1.42
943561	AF1-027	0.1388	Adder	0.16
944332	AF1-101 E O1	46.8581	Adder	55.13
944611	AF1-126 C O1	3.0621	Adder	3.6
944612	AF1-126 E O1	12.2485	Adder	14.41
945201	AF1-185 1	1.3716	50/50	1.3716
945211	AF1-185 2	0.3048	50/50	0.3048
945571	AF1-222 C	19.4507	Adder	22.88
945572	AF1-222 E	51.2791	Adder	60.33
945951	AF1-260	0.1031	Adder	0.12
946603	AF1-324 BAT	1.6322	Merchant Transmission	1.6322
957271	AF2-021 C	0.5488	Adder	1.22
957272	AF2-021 E	0.8232	Adder	1.83
957781	AF2-072 C	1.2871	Adder	2.86
957782	AF2-072 E	1.2871	Adder	2.86
958761	AF2-167 C O1	0.2610	Adder	0.58
958762	AF2-167 E O1	0.3604	Adder	0.8
959151	AF2-206 C O1	0.3505	Adder	0.78
959152	AF2-206 E O1	0.4837	Adder	1.07
959631	AF2-254 C	0.1550	Adder	0.34
959632	AF2-254 E	0.2140	Adder	0.48
961221	AF2-413 O1	76.2000	50/50	76.2000
961512	AF1-442 NFTW	3.1044	Merchant Transmission	3.1044
961522	AF1-443 NFTW	3.1079	Merchant Transmission	3.1079

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
NEWTON	NEWTON	0.3009	Confirmed LTF	0.3009
FARMERCITY	FARMERCITY	0.0156	Confirmed LTF	0.0156
G-007A	G-007A	73.0758	Confirmed LTF	73.0758
CALDERWOOD	CALDERWOOD	0.1292	Confirmed LTF	0.1292
NY	NY	1.6723	Confirmed LTF	1.6723
PRAIRIE	PRAIRIE	0.7155	Confirmed LTF	0.7155
O-066	O-066	40.6627	Confirmed LTF	40.6627
CHEOAH	CHEOAH	0.1301	Confirmed LTF	0.1301
EDWARDS	EDWARDS	0.0990	Confirmed LTF	0.0990
TILTON	TILTON	0.1783	Confirmed LTF	0.1783
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1534	Confirmed LTF	0.1534
BLUEG	BLUEG	0.4878	Confirmed LTF	0.4878
TRIMBLE	TRIMBLE	0.1564	Confirmed LTF	0.1564
CATAWBA	CATAWBA	0.0854	Confirmed LTF	0.0854

11.6.22 Index 22

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
100377271	219104	CLRKSVLL_2	PSE&G	217150	LAWRENCE	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	869.0	124.24	128.98	DC	49.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0694	50/50	0.0694
206271	28MCRC/REC	1.0625	Adder	1.25
206325	28O C GEN (Deactivation : 17/09/2018)	28.6601	Adder	33.72
206350	28RRCT1&2	2.7606	50/50	2.7606
206351	28RRCT3&4	2.5850	50/50	2.5850
206368	28MDLSEXCO	0.6934	50/50	0.6934
206370	LKWD CT3	30.0186	Adder	35.32
206403	28W4-009	24.7252	50/50	24.7252
206412	28R11	73.7117	Adder	86.72
206414	28X4-005E	3.9542	50/50	3.9542
206416	28MLH_W1-032	0.0405	50/50	0.0405
207143	28BYD_X4-031	0.3251	Adder	0.38
207152	28NPK_W1-113	0.1291	50/50	0.1291
207162	28APLW2-078	0.1445	50/50	0.1445
207169	28W4-060COL	0.1306	50/50	0.1306
207205	28MAN_W1-024	0.0566	50/50	0.0566
207400	28AA1-060 E	2.4091	Adder	2.83
207419	AB2-139 E	0.0979	50/50	0.0979
207420	AC1-207 C	1.1005	50/50	1.1005
219278	CLARKSP1_C	0.0016	50/50	0.0016
219281	CLARKSP1_E	0.0148	50/50	0.0148
219283	CLARKSP2_C	0.0012	50/50	0.0012
219302	CLARKSP2_E	0.0122	50/50	0.0122
219327	CLARKSP3_C	0.0004	50/50	0.0004
219329	CLARKSP3_E	0.0031	50/50	0.0031
219330	CLARKSP4_C	0.0006	50/50	0.0006
219335	CLARKSP4_E	0.0061	50/50	0.0061
219679	NRGCENTER E	-0.3194	Adder	-0.38
901032	W1-024E OP1	0.5401	50/50	0.5401
901112	W1-032 E OP1	0.3973	50/50	0.3973
901422	W1-113 E	1.2313	50/50	1.2313
901912	W1-112E OP1	0.4117	Adder	0.48
901982	W1-119 E	0.6145	Adder	0.72
901992	W1-120E	0.6145	Adder	0.72
902032	W1-124E	1.7175	Adder	2.02
902082	W1-129E	0.3351	Adder	0.39
902322	W2-019 E	0.3976	Adder	0.47
902912	W2-078 E	1.3793	50/50	1.3793
902952	W2-082 E OP1	1.1430	Adder	1.34
903982	W3-079 E	0.6787	Adder	0.8
905252	W4-025 E	0.4756	Adder	0.56

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
905502	W4-060 E OP1	1.2350	50/50	1.2350
907082	X1-037 E	1.7601	Adder	2.07
907272	X1-085 E	0.4738	Adder	0.56
912102	X4-015 E	0.3361	Adder	0.4
914092	Y2-051 E	0.4812	Adder	0.57
917612	Z2-102 E	0.9063	Adder	1.07
919662	AA2-048 E	1.0798	Adder	1.27
919712	AA2-058 E	-0.1713	Adder	-0.2
919802	AA2-066 E	-0.3194	Adder	-0.38
920732	AA2-184 E	1.8998	Adder	2.24
923293	AB1-138 E	0.8424	Adder	0.99
923463	AB1-163 E	0.6827	Adder	0.8
927132	AC1-207 E	1.8416	50/50	1.8416
934841	AD1-113 (Suspended)	14.8283	50/50	14.8283
937523	AD2-213 BAT	1.8028	Merchant Transmission	1.8028
939121	AE1-142 C O1	1.1388	Adder	1.34
939122	AE1-142 E O1	1.6388	Adder	1.93
939981	AE1-238 C	36.7276	Adder	43.21
939982	AE1-238 E	96.4713	Adder	113.5
940161	AE2-000 C O1	29.2338	Adder	34.39
940162	AE2-000 E O1	74.7993	Adder	88.0
940401	AE2-024 C O1	24.2410	Adder	28.52
940402	AE2-024 E O1	113.4939	Adder	133.52
940411	AE2-025 C	12.2369	Adder	14.4
940412	AE2-025 E	57.2865	Adder	67.4
940691	AE2-056 C	0.2675	Adder	0.31
940692	AE2-056 E	0.2340	Adder	0.28
940701	AE2-057 C	0.1006	50/50	0.1006
940702	AE2-057 E	0.1006	50/50	0.1006
940921	AE2-081 C	0.2842	Adder	0.33
940922	AE2-081 E	0.2925	Adder	0.34
940931	AE2-082 C	0.7622	50/50	0.7622
940932	AE2-082 E	0.8071	50/50	0.8071
943521	AF1-023	1.3757	Adder	1.62
943561	AF1-027	0.2677	Adder	0.31
944332	AF1-101 E O1	73.3331	Adder	86.27
944432	AF1-108 BAT	1.8624	Merchant Transmission	1.8624
944442	AF1-109 BAT	5.4184	50/50	5.4184
944611	AF1-126 C O1	4.2207	Adder	4.97
944612	AF1-126 E O1	16.8827	Adder	19.86
945201	AF1-185 1	0.8897	50/50	0.8897
945211	AF1-185 2	0.1977	50/50	0.1977
945571	AF1-222 C	22.8936	Adder	26.93
945572	AF1-222 E	60.3558	Adder	71.01
945723	AF1-237 BAT	38.8180	Merchant Transmission	38.8180
945951	AF1-260	0.1543	Adder	0.18
957271	AF2-021 C	0.8268	Adder	1.84
957272	AF2-021 E	1.2401	Adder	2.75
957771	AF2-071	34.0690	50/50	34.0690
957781	AF2-072 C	2.0691	Adder	4.59
957782	AF2-072 E	2.0691	Adder	4.59
958761	AF2-167 C O1	0.2920	Adder	0.65

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958762	AF2-167 E O1	0.4033	Adder	0.9
959151	AF2-206 C O1	0.5284	Adder	1.17
959152	AF2-206 E O1	0.7294	Adder	1.62
959631	AF2-254 C	0.2443	Adder	0.54
959632	AF2-254 E	0.3374	Adder	0.75
961221	AF2-413 O1	49.4275	50/50	49.4275
NEWTON	NEWTON	0.2590	Confirmed LTF	0.2590
FARMERCITY	FARMERCITY	0.0134	Confirmed LTF	0.0134
G-007A	G-007A	47.4010	Confirmed LTF	47.4010
CALDERWOOD	CALDERWOOD	0.1193	Confirmed LTF	0.1193
NY	NY	0.2135	Confirmed LTF	0.2135
PRAIRIE	PRAIRIE	0.6199	Confirmed LTF	0.6199
O-066	O-066	7.3450	Confirmed LTF	7.3450
CHEOAH	CHEOAH	0.1201	Confirmed LTF	0.1201
EDWARDS	EDWARDS	0.0843	Confirmed LTF	0.0843
TILTON	TILTON	0.1518	Confirmed LTF	0.1518
GIBSON	GIBSON	0.1316	Confirmed LTF	0.1316
BLUEG	BLUEG	0.4184	Confirmed LTF	0.4184
TRIMBLE	TRIMBLE	0.1341	Confirmed LTF	0.1341
CATAWBA	CATAWBA	0.0837	Confirmed LTF	0.0837

11.7 Queue Dependencies

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

Queue Number	Project Name	Status
AA1-060	Great Adventure 34.5kV	In Service
AA2-048	Allenwood-Larrabee 34kV	Engineering and Procurement
AA2-058	Mount Rose 13kV	Partially in Service - Under Construction
AA2-066	Penns Neck 13kV	In Service
AA2-184	Atlantic-Red Bank 34kV	In Service
AB1-001	Absecon 12 kV	Engineering and Procurement
AB1-138	Navy 34.5kV	In Service
AB1-163	Glidden-Van Hiseville 34.5 kV	Engineering and Procurement
AB1-169A	Minotola 138 kV	Withdrawn
AB2-014	Lakewood 230kV	Partially in Service - Under Construction
AB2-102	Cumberland 230kV	Active
AB2-122	Egg Harbor 12kV	Engineering and Procurement
AB2-139	Raceway Mall 34.5kV	In Service
AC1-207	Monroe 34.5kV	In Service
AC2-050	Tabernacle 12kV	Active
AC2-145	Beach Glen 4.8kV	Suspended
AD1-019	Ontario 23 kV	Active
AD1-059	Lakewood 230 kV	In Service
AD1-113	Raritan River 230 kV	Suspended
AD2-210	Cedar Knolls 12.5 kV	Suspended
AD2-213	East Flemington-Lebanon 34.5 kV	Active
AE1-061	Minotola 12 kV	Active
AE1-081	Landing 12.47 kV	Engineering and Procurement
AE1-104	BL England 138 kV	Active
AE1-142	Manitou-Pleasant Plains 34.5 kV	Under Construction
AE1-161	Landis 138 kV	Active
AE1-179	South Millville-Newport 69 kV	Active
AE1-238	Oceanview Wind 230 kV	Active
AE1-240	Carlls Corner-Sherman Avenue 69 kV	Active
AE2-000	N/A	N/A
AE2-020	Cardiff 230 kV I	Active
AE2-021	Cardiff 230 kV II	Active
AE2-022	Cardiff 230 kV III	Active
AE2-024	Larrabee 230 kV I	Active
AE2-025	Larrabee 230 kV II	Active
AE2-056	Howell 12.47 kV Solar I	Engineering and Procurement
AE2-057	Jerseyville 12.47 kV Solar	Engineering and Procurement
AE2-081	Howell 12.47 kV Solar II	Engineering and Procurement
AE2-082	Englishtown-Wyckoff 34.5 kV Solar	Active

Queue Number	Project Name	Status
AE2-222	Higbee 69 kV	Active
AE2-237	Vernon-Sugar Loaf #2 115 kV	Active
AE2-251	Cardiff 230 kV	Active
AF1-023	Atlantic-Red Bank 34 kV II	Active
AF1-027	Plumsted 537 Energy Storage (CIRs)	Active
AF1-041	Absecon 12.47 kV	In Service
AF1-101	Oyster Creek 230 kV III	Active
AF1-108	East Flemington 34.5 kV	Active
AF1-109	Pleasant Valley 230 kV	Active
AF1-126	Cookstown 230 kV	Active
AF1-185	Sayreville 1-2-3 230 kV	In Service
AF1-222	Oceanview Wind 2 230 kV	Active
AF1-237	Mercer 230 kV	Active
AF1-238	Sherman Ave. 69 kV	Active
AF1-239	Sherman Ave-Vineland 69 kV	Active
AF1-260	Allenwood-Larrabee 2 34.5 kV	Active
AF1-324	Greystone-West Denville 34.5 kV	Active
AF1-442	N/A	N/A
AF1-443	N/A	N/A
AF2-016	Lewis 138 kV	Active
AF2-019	Rio Grande 69 kV	Active
AF2-020	Carll's Corner 69 kV	Active
AF2-021	Cedar 69 kV	Active
AF2-022	Cumberland 138 kV	Active
AF2-025	Missouri Ave 69 kV	Active
AF2-026	Sherman Ave 138 kV	Active
AF2-071	Windsor 230 kV	Active
AF2-072	Larrabee 230 kV	Active
AF2-167	Eaton Crest-Red Bank 34.5 kV	Active
AF2-169	BL England 138 kV	Withdrawn
AF2-174	Tabernacle 12 kV	Active
AF2-206	Larrabee-Point Pleasant 34.5 kV	Active
AF2-254	Cookstown-New Lisbon 34.5 kV	Active
AF2-413	Raritan River 230 kV	Active
V2-041	Clayville 12kV	In Service
V3-036	Ontario 23kV	In Service
V4-054	Fairfield Township 12kV	In Service
V4-067	Cates Road Egg Harbor Township 12kV	In Service
W1-024	Manalapan 12.5kV	In Service
W1-032	Millhurst 12.5kV	In Service
W1-112	Holmdel	In Service
W1-113	Millstone 2	In Service
W1-119	Pemberton Township 1 34.5 kV	In Service
W1-120	Pemberton Township 2 34.5 kV	In Service
W1-124	Tinton Falls 34.5kV	In Service
W1-129	Cookstown 34.5kV	In Service
W1-130	Vine Road 12kV	In Service
W2-019	Wrightstown 34.5kV	In Service
W2-030	Egg Harbor Township	In Service
W2-078	Applegarth 12.5kV	In Service
W2-082	Fort Dix-McGuire 34.5kV	In Service
W3-079	Allenwood-Larabee 34.5kV	In Service

Queue Number	Project Name	Status
W4-009	Raritan River 230kV	In Service
W4-025	Cookstown-Fort Dix 34.5kV	In Service
W4-060	Midland-Werner 34.5kV	In Service
X1-037	Howell	In Service
X1-085	Hornerstown-Windsor 34kV	In Service
X1-095	Bernardsville 12kV	In Service
X4-005	Raritan River 230kV	In Service
X4-015	Cookstown-Fort Dix 34kV	In Service
X4-031	Bennett-Farmingdale 34kV	In Service
Y2-051	Brick-Lane Mill 34.5kV	In Service
Z2-102	Argonne-New Lisbon 34.5kV	In Service

11.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
JC-P7-1-JCC-230-7A	CONTINGENCY 'JC-P7-1-JCC-230-7A' /* SMITHBURG - LARRABEE 230 LINES DISCONNECT BRANCH FROM BUS 206309 TO BUS 206294 CKT 1 DISCONNECT BRANCH FROM BUS 206309 TO BUS 206294 CKT 2 END
JC-P2-3-JCC-230-83	CONTINGENCY 'JC-P2-3-JCC-230-83' /* SOUTH RIVER JUNCTION SOUTH RIVER-ATLANTIC LINES STUCK BREAKER DISCONNECT BRANCH FROM BUS 206411 TO BUS 206321 CKT 1 /* SOUTH RIVER JUNCTION - SOUTH RIVER 230 LINE DISCONNECT BRANCH FROM BUS 206411 TO BUS 206286 CKT 1 /* SOUTH RIVER JUNCTION - ATLANTIC 230 LINE END
PS_P1-2_#1LINE	CONTINGENCY 'PS_P1-2_#1LINE' /* LAKE NELSON TO RARITAN RIVER DISCONNECT BUS 218331 /* KILMER #1 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER END
PS_P2-3_LNEPS_P1-2_1_LT	CONTINGENCY 'PS_P2-3_LNEPS_P1-2_1_LT' /* STUCK BREAKER ON LAKE NELSON I LINE DISCONNECT BUS 218312 /* GREEN BROOK STATION DISCONNECT BUS 218301 /* MIDDLE LOSS OF BUS DISCONNECT BUS 218333 /* LAKE NELSON BUS I DISCONNECT BUS 218331 /* REMOVE KILMER LINE #1 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 CLOSE LINE FROM BUS 218388 TO BUS 218389 CKT Z /* LAKE NELSON MOVE 8 MW LOAD FROM BUS 218389 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218388 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T4 CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218406 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOMRVLL T2 MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218386 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T1 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218395 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOUTH SECOND ST.(METUCHEN 26KV IM) END

Contingency Name	Contingency Definition
JC-P2-3-JCC-230-85	CONTINGENCY 'JC-P2-3-JCC-230-85' /* SOUTH RIVER JUNCTION PARLIN- G1047 RARITAN RIVER LINES STUCK BREAKER DISCONNECT BRANCH FROM BUS 206410 TO BUS 206322 CKT 1 /* SOUTH RIVER JUNCTION - PARLIN 230 LINE DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 END
JC-P1-2-JCC-230-043T	CONTINGENCY 'JC-P1-2-JCC-230-043T' /** RARITAN RIVER - LAKE NELSON (W1037) 230 KV LINE DISCONNECT BRANCH FROM BUS 206305 TO BUS 218332 CKT 1 /* 28RAR RVR - KILMER_W 230.00 LINE DISCONNECT BRANCH FROM BUS 218332 TO BUS 218334 CKT 1 /* KILMER_W - LNELSN_W 230.00 LINE DISCONNECT BRANCH FROM BUS 218386 TO BUS 218332 CKT 1 /* KILMER_L1 13.20 - KILMER_W 230.00 XFMR DISCONNECT BRANCH FROM BUS 218387 TO BUS 218332 CKT 1 /* KILMER_L3 13.20 - KILMER_W 230.00 XFMR END
PS_P1-2_I-1023_LT	CONTINGENCY 'PS_P1-2_I-1023_LT' /* TIE LINE GILLET I TO BRIDGEWATER THROUGH MIDDLESEX DISCONNECT BUS 218312 /* GREEN BROOK STATION DISCONNECT BUS 218301 /* MIDDLESEX I DISCONNECT BUS 218333 /* LAKE NELSON BUS I CLOSE LINE FROM BUS 218388 TO BUS 218389 CKT Z /* LAKE NELSON MOVE 8 MW LOAD FROM BUS 218389 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218388 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T4 CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218406 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOMRVLL T2 MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218386 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T1 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218395 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOUTH SECOND ST.(METUCHEN 26KV IM) END

Contingency Name	Contingency Definition
PS_P1-2_#2LINE_LT	CONTINGENCY 'PS_P1-2_#2LINE_LT' /* LAKE NELSON TO RARITAN RIVER DISCONNECT BUS 218332 /* REMOVE KILMER CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER MOVE 8 MW LOAD FROM BUS 218384 TO BUS 218383 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO GREENBK T1 MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 END
JC-P1-2-JCC-230-012	CONTINGENCY 'JC-P1-2-JCC-230-012' /* FRENEAU - PARLIN (K1025) 230 KV & FRENEAU BANK 1 3 6 DISCONNECT BRANCH FROM BUS 206292 TO BUS 206298 CKT 1 /* 206292 FRENEAU 230.00 206298 28WILLIAMS 230.00 DISCONNECT BRANCH FROM BUS 206298 TO BUS 206322 CKT 1 /* 206298 28WILLIAMS 230.00 206322 28PARLIN 230.00 DISCONNECT BRANCH FROM BUS 206292 TO BUS 206267 CKT 1 /* FRENEAU TR 1 DISCONNECT BRANCH FROM BUS 206292 TO BUS 206267 CKT 6 /* FRENEAU TR 6 SET BUS 206292 LOAD TO 30 MW /* FRENEAU TR 3 END
JC-P7-1-JCC-230-10A	CONTINGENCY 'JC-P7-1-JCC-230-10A' /* LAKEWOOD - LARRABEE 230 KV LINES DISCONNECT BRANCH FROM BUS 206323 TO BUS 206294 CKT 2 DISCONNECT BRANCH FROM BUS 206323 TO BUS 206294 CKT 1 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206274 CKT 3 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206275 CKT 12 /* LARRABEE 12 FUTURE BREAKER AND A HALF SET BUS 206294 LOAD TO 38 MW /* LARRABEE 8 FUTURE BREAKER AND A HALF END
JC-P2-3-JCC-230-47D	CONTINGENCY 'JC-P2-3-JCC-230-47D' /* ATLANTIC - OCEANVIEW (Y2025) & OCEANVIEW BK1 230 KV FUTURE OCEANVIEW RING BUS DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT Y /* ATLANTIC - OCEANVIEW (Y2025) DISCONNECT BRANCH FROM BUS 206300 TO BUS 206273 CKT 1 /* OCEANVIEW BK1 REDUCE BUS 206273 SHUNT BY 50 PERCENT /* OCEANVIEW CAPS ON 34.5 KV BUS A DISCONNECT BRANCH FROM BUS 206273 TO BUS 206929 CKT 2 /* OCEANVIEW - ALLENHURST (X102) 34.5KV END

Contingency Name	Contingency Definition
JC-P2-3-JCC-230-47E	CONTINGENCY 'JC-P2-3-JCC-230-47E' /* OCEANVIEW BK2 230 KV FUTURE OCEANVIEW RING BUS & ATLANTIC - OCEANVIEW (Y2025) DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT Y /* ATLANTIC - OCEANVIEW (Y2025) DISCONNECT BRANCH FROM BUS 206300 TO BUS 206273 CKT 2 /* OCEANVIEW BK2 REDUCE BUS 206273 SHUNT BY 50 PERCENT /* OCEANVIEW CAPS ON 34.5 KV BUS B END
JC-P2-3-JCC-230-47C	CONTINGENCY 'JC-P2-3-JCC-230-47C' /* ATLANTIC - OCEANVIEW (X2024) & OCEANVIEW BK2 230 KV FUTURE OCEANVIEW RING BUS DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT X /* ATLANTIC - OCEANVIEW (X2024) DISCONNECT BRANCH FROM BUS 206300 TO BUS 206273 CKT 2 /* OCEANVIEW BK2 REDUCE BUS 206273 SHUNT BY 50 PERCENT /* OCEANVIEW CAPS ON 34.5 KV BUS B DISCONNECT BRANCH FROM BUS 206273 TO BUS 206929 CKT 1 /* OCEANVIEW - ALLENHURST (H216) 34.5KV END
JC-P2-3-JCC-230-26D	CONTINGENCY 'JC-P2-3-JCC-230-26D' /* RARITAN RIVER B146 STUCK BREAKER DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 13 /* RARITAN RIVER #13 230/115 KV TRANSFORMER DISCONNECT BUS 206403 /* WOODBRIDGE GENERATOR END
JC-P2-3-JCC-230-26B	CONTINGENCY 'JC-P2-3-JCC-230-26B' /* RARITAN RIVER B144 STUCK BREAKER DISCONNECT BUS 206315 /* RED OAK 230 KV B TAP DISCONNECT BUS 206362 /* RED OAK 230 KV #1 DISCONNECT BUS 206365 /* RED OAK 230 KV #4 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 13 /* RARITAN RIVER #13 230/115 KV TRANSFORMER DISCONNECT BUS 206403 /* WOODBRIDGE GENERATOR END
JC-P2-3-JCC-230-026C	CONTINGENCY 'JC-P2-3-JCC-230-026C' /* RARITAN RIVER B145 STUCK BREAKER DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 17 /* RARITAN RIVER #17 230/115 KV TRANSFORMER DISCONNECT BUS 206350 /* SAYREVILLE GENERATOR DISCONNECT BUS 206351 /* SAYREVILLE GENERATOR END

Contingency Name	Contingency Definition
JC-P7-1-JCC-230-12	CONTINGENCY 'JC-P7-1-JCC-230-12' /* LEISURE VILLAGE-MANITOU A2027 & C2029 DISCONNECT BRANCH FROM BUS 206295 TO BUS 206297 CKT 1 DISCONNECT BRANCH FROM BUS 206297 TO BUS 206277 CKT 7 DISCONNECT BRANCH FROM BUS 206296 TO BUS 206297 CKT 1 DISCONNECT BRANCH FROM BUS 206296 TO BUS 206276 CKT 3 SET BUS 206296 LOAD TO 0 MW END
PS_P7-1_I1023+GBK-LN_LT	CONTINGENCY 'PS_P7-1_I1023+GBK-LN_LT' /* LAKE NELSON - GILLETE BRIDGEWATER & LAKE NELSON -GREENBROOK DISCONNECT BUS 218312 /* GREENBROOK I DISCONNECT BUS 218301 /* MIDDLESEX I DISCONNECT BUS 218333 /* LAKE NELSON I DISCONNECT BUS 218334 /* LAKE NELSON W DISCONNECT BUS 218522 /* MIDDLESEX W CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218406 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOMRVLL T2 MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218386 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T1 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218395 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOUTH SECOND ST.(METUCHEN 26KV IM) END
PS_P7-1_1LINE+2LINE	CONTINGENCY 'PS_P7-1_1LINE+2LINE' /* LAKE NELSON - RARITIAN X2 DISCONNECT BUS 218331 /* REMOVE KILMER 1 DISCONNECT BUS 218332 /* REMOVE KILMER 2 MOVE 8 MW LOAD FROM BUS 218384 TO BUS 218383 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO GREENBK T1 MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 END
PS_P1-2_#2LINE	CONTINGENCY 'PS_P1-2_#2LINE' /* LAKE NELSON TO RARITIAN RIVER DISCONNECT BUS 218332 /* KILMER LINE #2 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER END

Contingency Name	Contingency Definition
JC-P7-1-JCN-230-8	CONTINGENCY 'JC-P7-1-JCN-230-8' /* GILLETTE-SUMMIT-TRAYNOR (U1035 & X1038) 230 KV DISCONNECT BRANCH FROM BUS 206249 TO BUS 206238 CKT 1 /* 28SUM NJTU 230 28GILLET U 230 DISCONNECT BRANCH FROM BUS 206249 TO BUS 206251 CKT 1 /* 28SUM NJTU 230 28TRAYNR U 230 DISCONNECT BRANCH FROM BUS 206238 TO BUS 206213 CKT 1 /* 28GILLET U 230 28GILLETTE 35 DISCONNECT BUS 206249 /* 28SUM NJTU 230 DISCONNECT BRANCH FROM BUS 206248 TO BUS 206239 CKT 1 /* 28SUM NJTX 230 28GILLET W 230 DISCONNECT BRANCH FROM BUS 206248 TO BUS 206250 CKT 1 /* 28SUM NJTX 230 28TRAYNR X 230 DISCONNECT BRANCH FROM BUS 206250 TO BUS 206206 CKT 11 /* 28TRAYNR X 230 28TRYNR CD 35 DISCONNECT BUS 206248 /* 28SUM NJTX 230 END
JC-P1-2-JCC-230-027	CONTINGENCY 'JC-P1-2-JCC-230-027' /* RARITAN RIVER - RED OAK - R11 (G1047) 230 KV LINE DISCONNECT BRANCH FROM BUS 206305 TO BUS 206315 CKT 1 DISCONNECT BRANCH FROM BUS 206315 TO BUS 206410 CKT 1 DISCONNECT BUS 206315 DISCONNECT BUS 206362 DISCONNECT BUS 206365 END
JC-P1-2-JCC-230-008	CONTINGENCY 'JC-P1-2-JCC-230-008' /* ATLANTIC - SOUTH RIVER JUNCTION (P1030) 230 KV DISCONNECT BRANCH FROM BUS 206286 TO BUS 206272 CKT 1 /* 206286 28ATLANTIC 230.00 206272 28ATLANT_A 34.50 DISCONNECT BRANCH FROM BUS 206286 TO BUS 206411 CKT 1 /* 206286 28ATLANTIC 230.00 206411 28SRIVERJCT 230.00 END
JC-P1-2-JCC-230-042T	CONTINGENCY 'JC-P1-2-JCC-230-042T' /** RARITAN RIVER - LAKE NELSON (I1023) 230 KV LINE DISCONNECT BRANCH FROM BUS 206305 TO BUS 218331 CKT 1 /* 28RAR RVR - KILMER_I 230.00 LINE DISCONNECT BRANCH FROM BUS 218331 TO BUS 218333 CKT 1 /* KILMER_I - LNELSN_I 230.00 LINE DISCONNECT BRANCH FROM BUS 218384 TO BUS 218331 CKT 1 /* KILMER_L2 13.20 - KILMER_I 230.00 XFMR DISCONNECT BRANCH FROM BUS 218385 TO BUS 218331 CKT 1 /* KILMER_L4 13.20 - KILMER_I 230.00 XFMR DISCONNECT BRANCH FROM BUS 218333 TO BUS 218427 CKT 1 /* L.NELSN3 230 L.NELSN3 69 END
Base Case	

Contingency Name	Contingency Definition
JC-P1-2-JCC-230-003	CONTINGENCY 'JC-P1-2-JCC-230-003' /* FUTURE ATLANTIC - OCEANVIEW (X2024) 230 KV DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT X /* ATLANTIC 230.00 OCEANV 230.00 END
JC-P1-2-JCC-230-004	CONTINGENCY 'JC-P1-2-JCC-230-004' /* FUTURE ATLANTIC - OCEANVIEW (Y2025) 230 KV DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT Y /* ATLANTIC 230.00 OCEANV 230.00 END
JC-P1-2-JCC-230-028	CONTINGENCY 'JC-P1-2-JCC-230-028' /* RARITAN RIVER - RED OAK - SOUTH RIVER JCT(T1034) 230 KV DISCONNECT BRANCH FROM BUS 206305 TO BUS 206314 CKT 1 /* 28RAR RVR 230.00 28RED OAKA 230.00 DISCONNECT BRANCH FROM BUS 206314 TO BUS 206411 CKT 1 /* 28RED OAKA 230.00 28R11RINGA 230.00 . DISCONNECT BUS 206314 /* 28RED OAKA 230.00 DISCONNECT BUS 206363 /* 28RDOAKCT2 18.00 DISCONNECT BUS 206364 /* 28RDOAKCT3 18.00 END
JC-P7-1-JCC-230-11A	CONTINGENCY 'JC-P7-1-JCC-230-11A' /* LAKEWOOD - LEISURE V 230 KV LINES DISCONNECT BRANCH FROM BUS 206323 TO BUS 206295 CKT 1 DISCONNECT BRANCH FROM BUS 206323 TO BUS 206296 CKT 1 DISCONNECT BRANCH FROM BUS 206323 TO BUS 206282 CKT 6 DISCONNECT BRANCH FROM BUS 206282 TO BUS 206999 CKT 1 SET BUS 206295 LOAD TO 0 MW DISCONNECT BUS 206999 DISCONNECT BUS 207110 DISCONNECT BUS 207010 DISCONNECT BUS 207111 END
PS_P1-2_#1LINE_LT	CONTINGENCY 'PS_P1-2_#1LINE_LT' /* LAKE NELSON TO RARITAN RIVER DISCONNECT BUS 218331 /* KILMER LINE #1 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER MOVE 8 MW LOAD FROM BUS 218384 TO BUS 218383 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO GREENBK T1 MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 END

Contingency Name	Contingency Definition
JC-P2-3-JCC-230-026A	CONTINGENCY 'JC-P2-3-JCC-230-026A' /* RARITAN RIVER B143 STUCK BREAKER DISCONNECT BUS 206315 /* RED OAK 230 KV B TAP DISCONNECT BUS 206362 /* RED OAK 230 KV #1 DISCONNECT BUS 206365 /* RED OAK 230 KV #4 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 17 /* RARITAN RIVER #17 230/115 KV TRANSFORMER DISCONNECT BUS 206350 /* SAYREVILLE GENERATOR DISCONNECT BUS 206351 /* SAYREVILLE GENERATOR END
PS_P1-2_I-1023	CONTINGENCY 'PS_P1-2_I-1023' /* TIE LINE GILLET I TO BRIDGEWATER THROUGH MIDDLESEX DISCONNECT BUS 218312 /* GREEN BROOK STATION DISCONNECT BUS 218301 /* MIDDLESEX I DISCONNECT BUS 218333 /* LAKE NELSON BUS I CLOSE LINE FROM BUS 218388 TO BUS 218389 CKT Z /* LAKE NELSON CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK END

12 Short Circuit Analysis - Primary POI

The Short Circuit Analysis will be performed during the System Impact Study phase.

13 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AF2-413 was evaluated as a 250.0 MW (Capacity 250.0 MW) injection at the Parlin 230 kV substation in the JCPL area. Project AF2-413 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-413 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

13.1 Generation Deliverability

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC/D C	MW IMPAC T
99748207	206298	28WILLIAMS	230.0	JCP&L	206292	28FRENEAU	230.0	JCP&L	1	JC-P1-2-JCC-230-008	single	869.0	93.56	102.08	DC	74.05
99747855	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	PS_P1-2_#2LINE	single	869.0	98.3	111.39	DC	117.74
99747856	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	PS_P1-2_#2LINE_LT	single	869.0	97.3	110.39	DC	117.74
99747996	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P1-2_#1LINE	single	817.0	90.26	100.49	DC	86.59
109443196	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P1-2-JCC-230-027	single	869.0	88.63	103.87	DC	146.25
109443178	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P1-2-JCC-230-028	single	869.0	92.65	108.13	DC	148.27
99748196	206322	28PARLIN	230.0	JCP&L	206298	28WILLIAMS	230.0	JCP&L	1	JC-P1-2-JCC-230-008	single	869.0	94.65	103.17	DC	74.05
99748190	206411	28R11RING A	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	1	JC-P1-2-JCC-230-012	single	817.0	94.47	102.48	DC	65.48
100376423	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	JC-P1-2-JCC-230-043T	single	805.0	98.38	112.51	DC	117.74
100376424	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	PS_P1-2_#2LINE_LT	single	805.0	97.22	111.35	DC	117.74
100376450	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	PS_P1-2_I-1023	single	679.0	99.72	111.96	DC	86.09
100376451	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	single	679.0	98.56	110.85	DC	86.42

13.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC/D C	MW IMPAC T
109910083	206286	28ATLANTIC	230.0	JCP&L	206310	28NEWPROSP	230.0	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	813.0	92.6	100.29	DC	62.36
99747660	206298	28WILLIAMS	230.0	JCP&L	206292	28FRENEAU	230.0	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	96.67	105.18	DC	74.05
99749028	206310	28NEWPROSP	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	99.36	101.51	DC	39.76
99747651	206322	28PARLIN	230.0	JCP&L	206298	28WILLIAMS	230.0	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	97.75	106.26	DC	74.05
109131002	206410	28R11RING B	230.0	JCP&L	206322	28PARLIN	230.0	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	86.57	106.79	DC	175.81
99747642	206411	28R11RING A	230.0	JCP&L	206410	28R11RING B	230.0	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	999.0	96.09	100.43	DC	43.32

13.3 Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS LOADIN G %	POST PROJECTIONS LOADIN G %	AC/D C	MW IMPACT
99748997	206286	28ATLANTIC	230.0	JCP&L	206310	28NEWPROSP	230.0	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	103.16	105.31	DC	39.76
99747393	206294	28LARRABE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	2	JC-P2-3-JCC-230-15F	breaker	813.0	169.19	170.45	DC	22.59
99747394	206294	28LARRABE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	2	JC-P2-3-JCC-230-13A	breaker	813.0	167.85	169.12	DC	22.82
99747398	206294	28LARRABE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	1	JC-P2-3-JCC-230-15G	breaker	817.0	168.36	169.62	DC	22.59
99747399	206294	28LARRABE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	1	JC-P2-3-JCC-230-15A	breaker	817.0	163.86	165.13	DC	22.83
99748910	206294	28LARRABE	230.0	JCP&L	206318	28VANHISV	230.0	JCP&L	1	JC-P7-1-JCC-230-11A	tower	869.0	117.65	119.0	DC	26.05
99748911	206294	28LARRABE	230.0	JCP&L	206318	28VANHISV	230.0	JCP&L	1	JC-P7-1-JCC-230-12	tower	869.0	108.04	109.42	DC	26.64
99748952	206294	28LARRABE	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	1	JC-P7-1-JCC-230-7A	tower	1147.0	111.15	112.34	DC	25.54
99747565	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	Y	JC-P2-3-JCC-230-47C	breaker	869.0	122.58	123.9	DC	21.65
99747568	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	X	JC-P2-3-JCC-230-47E	breaker	869.0	122.35	123.67	DC	21.59
99747569	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	X	JC-P2-3-JCC-230-47D	breaker	869.0	120.94	122.26	DC	21.62
99747385	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	JC-P2-3-JCC-230-026FT	breaker	869.0	154.82	168.52	DC	118.84
99747462	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	817.0	144.6	149.4	DC	86.09
99748917	206309	28SMITHBRG	230.0	JCP&L	206326	28E WINDSR	230.0	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	1394.0	123.36	131.08	DC	107.61
99748918	206309	28SMITHBRG	230.0	JCP&L	206326	28E WINDSR	230.0	JCP&L	1	PS_P7-1_1I1023+GBK-LN_LT	tower	1394.0	119.73	127.45	DC	107.59
99747358	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	183.92	199.55	DC	145.18
99747359	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-026A	breaker	869.0	170.79	186.43	DC	145.36
99747348	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	187.56	203.42	DC	147.17
99747349	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P2-3-JCC-230-026C	breaker	869.0	174.47	190.35	DC	147.36
99747578	206316	28WINDSOR	230.0	JCP&L	219752	CLRSVLL_1	230.0	PSE&G	1	JC-P2-3-JCC-230-80	breaker	813.0	122.62	127.26	DC	42.06
99748841	206316	28WINDSOR	230.0	JCP&L	219752	CLRSVLL_1	230.0	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	813.0	143.86	146.33	DC	49.21
99748842	206316	28WINDSOR	230.0	JCP&L	219752	CLRSVLL_1	230.0	PSE&G	1	PS_P7-1_1I1023+GBK-LN_LT	tower	813.0	140.69	143.15	DC	49.17
99748793	206318	28VANHISV	230.0	JCP&L	206294	28LARRABE	230.0	JCP&L	1	JC-P7-1-JCC-230-12	tower	869.0	168.23	169.74	DC	26.64
99748794	206318	28VANHISV	230.0	JCP&L	206294	28LARRABE	230.0	JCP&L	1	JC-P7-1-JCC-230-10A	tower	869.0	154.13	155.76	DC	26.53
99747542	206326	28E WINDSR	230.0	JCP&L	206316	28WINDSOR	230.0	JCP&L	1	JC-P2-3-JCC-230-80	breaker	869.0	127.44	131.71	DC	40.09
99748851	206326	28E WINDSR	230.0	JCP&L	206316	28WINDSOR	230.0	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	869.0	148.45	152.35	DC	41.02

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
99748852	206326	28E WINDSR	230.0	JCP&L	206316	28WINDSOR	230.0	JCP&L	1	PS_P7-1_1I023+GBK-LN_LT	tower	869.0	145.93	149.83	DC	40.98
99747487	206410	28R11RINGB	230.0	JCP&L	206315	28RED OAKB	230.0	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	143.75	159.66	DC	147.72
99747488	206410	28R11RINGB	230.0	JCP&L	206315	28RED OAKB	230.0	JCP&L	1	JC-P2-3-JCC-230-026C	breaker	869.0	131.91	147.68	DC	147.9
99747458	206411	28R11RINGA	230.0	JCP&L	206314	28RED OAKA	230.0	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	147.57	163.24	DC	145.63
99747459	206411	28R11RINGA	230.0	JCP&L	206314	28RED OAKA	230.0	JCP&L	1	JC-P2-3-JCC-230-026A	breaker	869.0	135.32	150.89	DC	145.81
99747641	206411	28R11RINGA	230.0	JCP&L	206410	28R11RINGB	230.0	JCP&L	1	JC-P2-3-JCC-230-85	breaker	999.0	101.97	106.99	DC	57.66
99747612	218313	GREENBK_W	230.0	PSE&G	206239	28GILLET W	230.0	JCP&L	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	802.0	104.79	108.74	DC	69.4
99747613	218313	GREENBK_W	230.0	PSE&G	206239	28GILLET W	230.0	JCP&L	1	JC-P2-3-JCC-230-026HT	breaker	802.0	102.71	111.51	DC	70.4
100376108	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	JC-P2-3-JCC-230-026FT	breaker	805.0	161.22	176.02	DC	118.84
100376122	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	JC-P2-3-JCC-230-026HT	breaker	679.0	156.29	169.22	DC	87.62
100376183	218333	LNELSN_I	230.0	PSE&G	218301	MIDDLESEX_I	230.0	PSE&G	1	JC-P2-3-JCC-230-026FT	breaker	819.0	135.63	149.09	DC	110.06
100376250	218334	LNELSN_W	230.0	PSE&G	218522	MIDDLESEX_W	230.0	PSE&G	1	JC-P2-3-JCC-230-026HT	breaker	887.0	117.26	127.16	DC	87.62
100376245	218522	MIDDLESEX_W	230.0	PSE&G	218313	GREENBK_W	230.0	PSE&G	1	JC-P2-3-JCC-230-026HT	breaker	887.0	117.26	127.16	DC	87.62
100376345	219104	CLRKSULL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	JC-P2-3-JCC-230-80	breaker	869.0	104.73	109.06	DC	42.06
100377271	219104	CLRKSULL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	869.0	124.6	126.9	DC	49.21
100377272	219104	CLRKSULL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	PS_P7-1_1I023+GBK-LN_LT	tower	869.0	121.63	123.93	DC	49.17

13.4 Potential Congestion due to Local Energy Deliverability

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

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
99747881	206294	28LARRABEE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	2	JC-P1-2-JCC-230-017	operation	813.0	166.9	168.16	DC	22.61

ID	FROM BUS#	FROM BUS AREA	kV	FROM BUS AREA	TO BUS#	TO BUS AREA	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
99747882	206294	28LARRABEE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	2	Base Case	operati on	678.0	130.86	131.85	DC	14.78
99747975	206294	28LARRABEE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	1	JC-P1-2-JCC-230-018	operati on	817.0	152.79	153.79	DC	18.15
99747976	206294	28LARRABEE	230.0	JCP&L	206309	28SMITHBRG	230.0	JCP&L	1	Base Case	operati on	650.0	136.5	137.53	DC	14.78
99748206	206298	28WILLIAMS	230.0	JCP&L	206292	28FRENEAU	230.0	JCP&L	1	JC-P1-2-JCC-230-008	operati on	869.0	96.62	105.13	DC	74.05
99748154	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	X	JC-P1-2-JCC-230-004	operati on	869.0	115.73	117.04	DC	21.51
99748155	206300	28OCEANVW	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	Y	JC-P1-2-JCC-230-003	operati on	869.0	115.73	117.04	DC	21.51
99747849	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	PS_P1-2_#2LI NE	operati on	869.0	162.17	168.35	DC	117.74
99747854	206305	28RAR RVR	230.0	JCP&L	218331	KILMER_I	230.0	PSE&G	1	Base Case	operati on	709.0	136.07	141.81	DC	89.19
99747990	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	PS_P1-2_#1LI NE	operati on	817.0	142.84	147.68	DC	86.59
99747995	206305	28RAR RVR	230.0	JCP&L	218332	KILMER_W	230.0	PSE&G	1	Base Case	operati on	650.0	112.17	115.54	DC	48.0
99747860	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P1-2-JCC-230-027	operati on	869.0	165.66	181.41	DC	146.25
99747861	206314	28RED OAKA	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	Base Case	operati on	709.0	130.13	139.68	DC	67.69
99747844	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	JC-P1-2-JCC-230-028	operati on	869.0	169.37	185.35	DC	148.27
99747845	206315	28RED OAKB	230.0	JCP&L	206305	28RAR RVR	230.0	JCP&L	1	Base Case	operati on	709.0	117.66	130.1	DC	88.1
99748135	206316	28WINDSOR	230.0	JCP&L	219752	CLRKSVLL_1	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operati on	813.0	122.44	124.13	DC	30.8
99748136	206316	28WINDSOR	230.0	JCP&L	219752	CLRKSVLL_1	230.0	PSE&G	1	Base Case	operati on	678.0	126.5	127.79	DC	19.41
99748195	206322	28PARLIN	230.0	JCP&L	206298	28WILLIAMS	230.0	JCP&L	1	JC-P1-2-JCC-230-008	operati on	869.0	97.7	106.21	DC	74.05
99748063	206410	28R11RINGB	230.0	JCP&L	206315	28RED OAKB	230.0	JCP&L	1	JC-P1-2-JCC-230-028	operati on	869.0	126.98	142.86	DC	148.81
109443774	206410	28R11RINGB	230.0	JCP&L	206322	28PARLIN	230.0	JCP&L	1	JC-P1-2-JCC-230-008	operati on	869.0	86.51	106.73	DC	175.81
99748050	206411	28R11RINGA	230.0	JCP&L	206314	28RED OAKA	230.0	JCP&L	1	JC-P1-2-JCC-230-027	operati on	869.0	130.63	146.27	DC	146.7
99748188	206411	28R11RINGA	230.0	JCP&L	206286	28ATLANTIC	230.0	JCP&L	1	JC-P1-2-JCC-230-012	operati on	817.0	97.86	105.86	DC	65.48

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC DC	MW IMPACT
99748159	218313	GREENBK_W	230.0	PSE&G	206239	28GILLET W	230.0	JCP&L	1	PS_P1-2_I-1023_L T	operation	802.0	104.44	108.39	DC	69.4
100376417	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	JC-P1-2-JCC-230-043T	operation	805.0	167.33	174.0	DC	117.74
100376422	218331	KILMER_I	230.0	PSE&G	218333	LNELSN_I	230.0	PSE&G	1	Base Case	operation	650.0	141.11	147.37	DC	89.19
100376444	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	PS_P1-2_I-1023	operation	679.0	163.13	168.91	DC	86.09
100376449	218332	KILMER_W	230.0	PSE&G	218334	LNELSN_W	230.0	PSE&G	1	Base Case	operation	523.0	130.31	134.5	DC	48.0
100376497	218333	LNELSN_I	230.0	PSE&G	218301	MIDDLESEX_I	230.0	PSE&G	1	JC-P1-2-JCC-230-043T	operation	819.0	141.17	147.24	DC	109.05
100376502	218333	LNELSN_I	230.0	PSE&G	218301	MIDDLESEX_I	230.0	PSE&G	1	Base Case	operation	709.0	109.99	115.4	DC	84.13
100376620	218334	LNELSN_W	230.0	PSE&G	218522	MIDDLESEX_W	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	887.0	121.41	125.85	DC	86.42
100376614	218522	MIDDLESEX_W	230.0	PSE&G	218313	GREENBK_W	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	887.0	121.41	125.85	DC	86.42
100376728	219104	CLRKSVLL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	Base Case	operation	709.0	104.79	106.02	DC	19.41
100376729	219104	CLRKSVLL_2	230.0	PSE&G	217150	LAWRENCE	230.0	PSE&G	1	JC-P1-2-JCC-230-042T	operation	869.0	104.56	106.14	DC	30.8

13.5 Flow Gate Details - Secondary POI

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

13.5.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747660	206298	28WILLIAMS	JCP&L	206292	28FRENEAU	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	96.67	105.18	DC	74.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206327	28S RIV G1	3.1534	50/50	3.1534
206328	28S RIV G2	3.1534	50/50	3.1534
206329	28S RIV G3	4.2648	50/50	4.2648
206358	28PARLN1&2	2.3716	50/50	2.3716
206359	28PARLN3&4	2.8865	50/50	2.8865
206362	28RDOAKCT1	7.5287	50/50	7.5287
206363	28RDOAKCT2	7.3681	50/50	7.3681
206364	28RDOAKCT3	7.3681	50/50	7.3681
206365	28RDOAKST1	10.5575	50/50	10.5575
206403	28W4-009	26.9750	50/50	26.9750
206412	28R11	111.0076	50/50	111.0076
206414	28X4-005E	3.6669	Adder	4.31
207401	AA1-060 BAT	1.7146	Merchant Transmission	1.7146
217724	BRIDGSP1_E	0.0413	Adder	0.05
218629	LAKENESP1_E	0.0456	Adder	0.05
218635	LAKENESP2_E	0.0337	Adder	0.04
219250	CENTRALDIV E	0.0259	Adder	0.03
902322	W2-019 E	-0.3065	Adder	-0.36
919663	AA2-048 BAT	1.1256	Merchant Transmission	1.1256
934841	AD1-113 (Suspended)	13.7509	Adder	16.18
939121	AE1-142 C O1	-0.9393	Adder	-1.11
940691	AE2-056 C	-0.2307	Adder	-0.27
940701	AE2-057 C	-0.0674	Adder	-0.08
940921	AE2-081 C	-0.2452	Adder	-0.29
944613	AF1-126 BAT	23.0450	Merchant Transmission	23.0450
945201	AF1-185 1	0.8251	Adder	0.97
945211	AF1-185 2	0.1833	Adder	0.22
957273	AF2-021 BAT	2.0935	Merchant Transmission	2.0935
957783	AF2-072 BAT	3.9549	Merchant Transmission	3.9549
961221	AF2-413 O2	74.0450	50/50	74.0450
NEWTON	NEWTON	0.2514	Confirmed LTF	0.2514
FARMERCITY	FARMERCITY	0.0132	Confirmed LTF	0.0132
G-007A	G-007A	51.7117	Confirmed LTF	51.7117
VFT	VFT	17.1506	Confirmed LTF	17.1506
CALDERWOOD	CALDERWOOD	0.1247	Confirmed LTF	0.1247
PRAIRIE	PRAIRIE	0.6122	Confirmed LTF	0.6122
CHEOAH	CHEOAH	0.1256	Confirmed LTF	0.1256
EDWARDS	EDWARDS	0.0812	Confirmed LTF	0.0812
TILTON	TILTON	0.1462	Confirmed LTF	0.1462
GIBSON	GIBSON	0.1278	Confirmed LTF	0.1278
BLUEG	BLUEG	0.4062	Confirmed LTF	0.4062

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1302	Confirmed LTF	0.1302
CATAWBA	CATAWBA	0.0927	Confirmed LTF	0.0927

13.5.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747385	206305	28RAR RVR	JCP&L	218331	KILMER_I	PSE&G	1	JC-P2-3-JCC-230-026FT	breaker	869.0	154.82	168.52	DC	118.84

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.5357	Adder	1.81
206325	28O C GEN (Deactivation : 17/09/2018)	29.4168	Adder	34.61
206327	28S RIV G1	6.1187	50/50	6.1187
206328	28S RIV G2	6.1187	50/50	6.1187
206329	28S RIV G3	8.2752	50/50	8.2752
206358	28PARLN1&2	3.8061	50/50	3.8061
206359	28PARLN3&4	4.6326	50/50	4.6326
206362	28RDOAKCT1	14.9172	50/50	14.9172
206363	28RDOAKCT2	14.8848	50/50	14.8848
206364	28RDOAKCT3	14.8848	50/50	14.8848
206365	28RDOAKST1	20.9184	50/50	20.9184
206370	LKWD CT3	30.4028	Adder	35.77
206403	28W4-009	65.5216	50/50	65.5216
206412	28R11	215.3932	50/50	215.3932
206414	28X4-005E	10.4786	50/50	10.4786
207143	28BYD_X4-031	0.4223	Adder	0.5
207400	28AA1-060 E	1.9534	Adder	2.3
207419	AB2-139 E	0.0677	Adder	0.08
207420	AC1-207 C	0.8612	Adder	1.01
901032	W1-024E OP1	0.3838	Adder	0.45
901112	W1-032 E OP1	0.2327	Adder	0.27
901422	W1-113 E	0.7743	Adder	0.91
901912	W1-112E OP1	0.7022	Adder	0.83
901982	W1-119 E	0.6178	Adder	0.73
901992	W1-120E	0.6178	Adder	0.73
902032	W1-124E	2.4896	Adder	2.93
902082	W1-129E	0.3354	Adder	0.39
902322	W2-019 E	0.3977	Adder	0.47
902912	W2-078 E	0.8672	Adder	1.02
902952	W2-082 E OP1	1.1450	Adder	1.35
903982	W3-079 E	0.7394	Adder	0.87
905252	W4-025 E	0.4760	Adder	0.56
905502	W4-060 E OP1	1.9766	Adder	2.33
907082	X1-037 E	2.0711	Adder	2.44
907272	X1-085 E	0.3393	Adder	0.4
912102	X4-015 E	0.3365	Adder	0.4
914092	Y2-051 E	0.5132	Adder	0.6
917612	Z2-102 E	0.9111	Adder	1.07
919662	AA2-048 E	1.1763	Adder	1.38
920732	AA2-184 E	2.7715	Adder	3.26

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923293	AB1-138 E	0.8685	Adder	1.02
923463	AB1-163 E	0.7109	Adder	0.84
927132	AC1-207 E	1.4412	Adder	1.7
934841	AD1-113 (Suspended)	39.2948	50/50	39.2948
939121	AE1-142 C O1	1.1632	Adder	1.37
939122	AE1-142 E O1	1.6739	Adder	1.97
939981	AE1-238 C	51.9626	Adder	61.13
939982	AE1-238 E	136.4885	Adder	160.57
940161	AE2-000 C O1	30.0056	Adder	35.3
940162	AE2-000 E O1	76.7741	Adder	90.32
940401	AE2-024 C O1	24.4561	Adder	28.77
940402	AE2-024 E O1	114.5008	Adder	134.71
940411	AE2-025 C	12.3454	Adder	14.52
940412	AE2-025 E	57.7947	Adder	67.99
940691	AE2-056 C	0.3135	Adder	0.37
940692	AE2-056 E	0.2743	Adder	0.32
940701	AE2-057 C	0.0979	Adder	0.12
940702	AE2-057 E	0.0979	Adder	0.12
940921	AE2-081 C	0.3331	Adder	0.39
940922	AE2-081 E	0.3429	Adder	0.4
940931	AE2-082 C	0.5623	Adder	0.66
940932	AE2-082 E	0.5954	Adder	0.7
943521	AF1-023	2.0070	Adder	2.36
943561	AF1-027	0.2170	Adder	0.26
944332	AF1-101 E O1	75.2692	Adder	88.55
944611	AF1-126 C O1	4.8029	Adder	5.65
944612	AF1-126 E O1	19.2117	Adder	22.6
945571	AF1-222 C	32.3900	Adder	38.11
945572	AF1-222 E	85.3919	Adder	100.46
945951	AF1-260	0.1680	Adder	0.2
957271	AF2-021 C	0.8681	Adder	1.93
957272	AF2-021 E	1.3022	Adder	2.89
957781	AF2-072 C	2.0875	Adder	4.63
957782	AF2-072 E	2.0875	Adder	4.63
958761	AF2-167 C O2	0.4451	Adder	0.99
958762	AF2-167 E O2	0.6146	Adder	1.36
959151	AF2-206 C O2	0.5700	Adder	1.27
959152	AF2-206 E O2	0.7867	Adder	1.75
959631	AF2-254 C	0.2450	Adder	0.54
959632	AF2-254 E	0.3383	Adder	0.75
961221	AF2-413 O2	118.8350	50/50	118.8350
NEWTON	NEWTON	0.6178	Confirmed LTF	0.6178
FARMERCITY	FARMERCITY	0.0321	Confirmed LTF	0.0321
G-007A	G-007A	125.6122	Confirmed LTF	125.6122
CALDERWOOD	CALDERWOOD	0.2748	Confirmed LTF	0.2748
NY	NY	1.6728	Confirmed LTF	1.6728
PRAIRIE	PRAIRIE	1.4749	Confirmed LTF	1.4749
O-066	O-066	33.4589	Confirmed LTF	33.4589
CHEOAH	CHEOAH	0.2763	Confirmed LTF	0.2763
EDWARDS	EDWARDS	0.2023	Confirmed LTF	0.2023
TILTON	TILTON	0.3641	Confirmed LTF	0.3641
MADISON	MADISON	0.0121	Confirmed LTF	0.0121

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.3145	Confirmed LTF	0.3145
BLUEG	BLUEG	0.9999	Confirmed LTF	0.9999
TRIMBLE	TRIMBLE	0.3205	Confirmed LTF	0.3205
CATAWBA	CATAWBA	0.1869	Confirmed LTF	0.1869

13.5.3 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
99747462	206305	28RAR RVR	JCP&L	218332	KILMER_W	PSE&G	1	PS_P2-3_LNEPS_P1-2_1_LT	breaker	817.0	144.6	149.4	DC	86.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.1322	Adder	1.33
206325	28O C GEN (Deactivation : 17/09/2018)	22.0812	Adder	25.98
206329	28S RIV G3	5.9899	50/50	5.9899
206350	28RRCT1&2	5.2871	50/50	5.2871
206351	28RRCT3&4	4.9507	50/50	4.9507
206362	28RDOAKCT1	10.7939	50/50	10.7939
206363	28RDOAKCT2	10.7708	50/50	10.7708
206364	28RDOAKCT3	10.7708	50/50	10.7708
206365	28RDOAKST1	15.1363	50/50	15.1363
206370	LKWD CT3	22.7341	Adder	26.75
206403	28W4-009	47.3532	50/50	47.3532
206412	28R11	132.5232	Adder	155.91
206414	28X4-005E	7.5730	50/50	7.5730
207143	28BYD_X4-031	0.3130	Adder	0.37
207400	28AA1-060 E	1.4913	Adder	1.75
207419	AB2-139 E	0.0524	Adder	0.06
207420	AC1-207 C	0.6661	Adder	0.78
901032	W1-024E OP1	0.2943	Adder	0.35
901112	W1-032 E OP1	0.1781	Adder	0.21
901422	W1-113 E	0.6015	Adder	0.71
901912	W1-112E OP1	0.5183	Adder	0.61
901982	W1-119 E	0.4672	Adder	0.55
901992	W1-120E	0.4672	Adder	0.55
902032	W1-124E	1.8350	Adder	2.16
902082	W1-129E	0.2542	Adder	0.3
902322	W2-019 E	0.3014	Adder	0.35
902912	W2-078 E	0.6736	Adder	0.79
902952	W2-082 E OP1	0.8674	Adder	1.02
903982	W3-079 E	0.5511	Adder	0.65
905252	W4-025 E	0.3608	Adder	0.42
905502	W4-060 E OP1	1.4918	Adder	1.76
907082	X1-037 E	1.5467	Adder	1.82
907272	X1-085 E	0.2603	Adder	0.31
912102	X4-015 E	0.2550	Adder	0.3
914092	Y2-051 E	0.3828	Adder	0.45
917612	Z2-102 E	0.6891	Adder	0.81
919662	AA2-048 E	0.8768	Adder	1.03
920732	AA2-184 E	2.0428	Adder	2.4
923293	AB1-138 E	0.6503	Adder	0.77
923463	AB1-163 E	0.5328	Adder	0.63
927132	AC1-207 E	1.1146	Adder	1.31

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934841	AD1-113 (Suspended)	28.3988	50/50	28.3988
937513	AD2-210 BAT (Suspended)	0.1769	Merchant Transmission	0.1769
939121	AE1-142 C O1	0.8713	Adder	1.03
939122	AE1-142 E O1	1.2539	Adder	1.48
939981	AE1-238 C	38.2615	Adder	45.01
939982	AE1-238 E	100.5001	Adder	118.24
940161	AE2-000 C O1	22.5232	Adder	26.5
940162	AE2-000 E O1	57.6292	Adder	67.8
940401	AE2-024 C O1	18.2718	Adder	21.5
940402	AE2-024 E O1	85.5466	Adder	100.64
940411	AE2-025 C	9.2236	Adder	10.85
940412	AE2-025 E	43.1800	Adder	50.8
940691	AE2-056 C	0.2342	Adder	0.28
940692	AE2-056 E	0.2049	Adder	0.24
940701	AE2-057 C	0.0734	Adder	0.09
940702	AE2-057 E	0.0734	Adder	0.09
940921	AE2-081 C	0.2488	Adder	0.29
940922	AE2-081 E	0.2561	Adder	0.3
940931	AE2-082 C	0.4342	Adder	0.51
940932	AE2-082 E	0.4597	Adder	0.54
943521	AF1-023	1.4793	Adder	1.74
943561	AF1-027	0.1657	Adder	0.19
944332	AF1-101 E O1	56.4996	Adder	66.47
944611	AF1-126 C O1	3.6452	Adder	4.29
944612	AF1-126 E O1	14.5809	Adder	17.15
945201	AF1-185 1	1.7039	50/50	1.7039
945211	AF1-185 2	0.3787	50/50	0.3787
945571	AF1-222 C	23.8497	Adder	28.06
945572	AF1-222 E	62.8764	Adder	73.97
945951	AF1-260	0.1253	Adder	0.15
957271	AF2-021 C	0.6564	Adder	1.46
957272	AF2-021 E	0.9846	Adder	2.19
957781	AF2-072 C	1.5596	Adder	3.46
957782	AF2-072 E	1.5596	Adder	3.46
958761	AF2-167 C O2	0.3270	Adder	0.73
958762	AF2-167 E O2	0.4516	Adder	1.0
959151	AF2-206 C O2	0.4251	Adder	0.94
959152	AF2-206 E O2	0.5867	Adder	1.3
959631	AF2-254 C	0.1855	Adder	0.41
959632	AF2-254 E	0.2561	Adder	0.57
961221	AF2-413 O2	38.7824	Adder	86.09
NEWTON	NEWTON	0.4105	Confirmed LTF	0.4105
FARMERCITY	FARMERCITY	0.0213	Confirmed LTF	0.0213
G-007A	G-007A	90.7813	Confirmed LTF	90.7813
CALDERWOOD	CALDERWOOD	0.1794	Confirmed LTF	0.1794
NY	NY	1.7945	Confirmed LTF	1.7945
PRAIRIE	PRAIRIE	0.9764	Confirmed LTF	0.9764
O-066	O-066	41.7715	Confirmed LTF	41.7715
CHEOAH	CHEOAH	0.1807	Confirmed LTF	0.1807
EDWARDS	EDWARDS	0.1347	Confirmed LTF	0.1347
TILTON	TILTON	0.2419	Confirmed LTF	0.2419
MADISON	MADISON	0.0101	Confirmed LTF	0.0101

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.2091	Confirmed LTF	0.2091
BLUEG	BLUEG	0.6632	Confirmed LTF	0.6632
TRIMBLE	TRIMBLE	0.2131	Confirmed LTF	0.2131
CATAWBA	CATAWBA	0.1204	Confirmed LTF	0.1204

13.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747358	206314	28RED OAKA	JCP&L	206305	28RAR RVR	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	183.92	199.55	DC	145.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0638	50/50	0.0638
206271	28MCRC/REC	1.8961	50/50	1.8961
206325	28O C GEN (Deactivation : 17/09/2018)	29.8008	Adder	35.06
206327	28S RIV G1	7.6605	50/50	7.6605
206328	28S RIV G2	7.6605	50/50	7.6605
206329	28S RIV G3	10.3604	50/50	10.3604
206358	28PARLN1&2	4.6499	50/50	4.6499
206359	28PARLN3&4	5.6596	50/50	5.6596
206363	28RDOAKCT2	18.9520	50/50	18.9520
206364	28RDOAKCT3	18.9520	50/50	18.9520
206370	LKWD CT3	30.7785	Adder	36.21
206412	28R11	269.6672	50/50	269.6672
207143	28BYD_X4-031	0.4961	50/50	0.4961
207144	28HOW_X1-037	0.2268	50/50	0.2268
207145	28FRN_Y2-051	0.0645	50/50	0.0645
207148	28MDF_W3-079	0.0919	50/50	0.0919
207204	28HOL_W1-112	0.0798	50/50	0.0798
207206	28TIN_W1-124	0.3250	50/50	0.3250
207400	28AA1-060 E	1.6319	Adder	1.92
901032	W1-024E OP1	0.1988	Adder	0.23
901112	W1-032 E OP1	0.1686	Adder	0.2
901912	W1-112E OP1	0.7547	50/50	0.7547
901982	W1-119 E	0.5979	Adder	0.7
901992	W1-120E	0.5979	Adder	0.7
902032	W1-124E	3.0910	50/50	3.0910
902082	W1-129E	0.3212	Adder	0.38
902322	W2-019 E	0.3802	Adder	0.45
902952	W2-082 E OP1	1.0986	Adder	1.29
903982	W3-079 E	0.8808	50/50	0.8808
905252	W4-025 E	0.4559	Adder	0.54
907082	X1-037 E	2.1448	50/50	2.1448
907272	X1-085 E	0.2549	Adder	0.3
912102	X4-015 E	0.3225	Adder	0.38
914092	Y2-051 E	0.6096	50/50	0.6096
917612	Z2-102 E	0.8816	Adder	1.04
919662	AA2-048 E	1.4013	50/50	1.4013
920732	AA2-184 E	3.4228	50/50	3.4228
923293	AB1-138 E	0.8740	Adder	1.03
923463	AB1-163 E	0.7094	Adder	0.83
939121	AE1-142 C O1	1.1767	Adder	1.38
939122	AE1-142 E O1	1.6934	Adder	1.99

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939981	AE1-238 C	67.0095	50/50	67.0095
939982	AE1-238 E	176.0116	50/50	176.0116
940161	AE2-000 C O1	30.3974	Adder	35.76
940162	AE2-000 E O1	77.7765	Adder	91.5
940401	AE2-024 C O1	29.1258	50/50	29.1258
940402	AE2-024 E O1	136.3639	50/50	136.3639
940411	AE2-025 C	14.7027	50/50	14.7027
940412	AE2-025 E	68.8302	50/50	68.8302
940691	AE2-056 C	0.3227	50/50	0.3227
940692	AE2-056 E	0.2824	50/50	0.2824
940701	AE2-057 C	0.0925	50/50	0.0925
940702	AE2-057 E	0.0925	50/50	0.0925
940921	AE2-081 C	0.3429	50/50	0.3429
940922	AE2-081 E	0.3530	50/50	0.3530
943521	AF1-023	2.4786	50/50	2.4786
943561	AF1-027	0.1813	Adder	0.21
944332	AF1-101 E O1	76.2520	Adder	89.71
944611	AF1-126 C O1	4.8386	Adder	5.69
944612	AF1-126 E O1	19.3545	Adder	22.77
945201	AF1-185 1	-1.0990	Adder	-1.29
945211	AF1-185 2	-0.2442	Adder	-0.29
945571	AF1-222 C	41.7693	50/50	41.7693
945572	AF1-222 E	110.1189	50/50	110.1189
945951	AF1-260	0.2002	50/50	0.2002
957271	AF2-021 C	0.8816	Adder	1.96
957272	AF2-021 E	1.3224	Adder	2.94
957781	AF2-072 C	4.6907	50/50	4.6907
957782	AF2-072 E	4.6907	50/50	4.6907
958761	AF2-167 C O2	1.0905	50/50	1.0905
958762	AF2-167 E O2	1.5059	50/50	1.5059
959151	AF2-206 C O2	1.2785	50/50	1.2785
959152	AF2-206 E O2	1.7647	50/50	1.7647
959631	AF2-254 C	0.2355	Adder	0.52
959632	AF2-254 E	0.3253	Adder	0.72
961221	AF2-413 O2	145.1800	50/50	145.1800
NEWTON	NEWTON	0.2697	Confirmed LTF	0.2697
FARMERCITY	FARMERCITY	0.0139	Confirmed LTF	0.0139
CALDERWOOD	CALDERWOOD	0.1143	Confirmed LTF	0.1143
NY	NY	1.5451	Confirmed LTF	1.5451
PRAIRIE	PRAIRIE	0.6406	Confirmed LTF	0.6406
O-066	O-066	33.8016	Confirmed LTF	33.8016
CHEOAH	CHEOAH	0.1146	Confirmed LTF	0.1146
EDWARDS	EDWARDS	0.0889	Confirmed LTF	0.0889
TILTON	TILTON	0.1600	Confirmed LTF	0.1600
G-007	G-007	29.8813	Confirmed LTF	29.8813
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1376	Confirmed LTF	0.1376
BLUEG	BLUEG	0.4375	Confirmed LTF	0.4375
TRIMBLE	TRIMBLE	0.1402	Confirmed LTF	0.1402
CATAWBA	CATAWBA	0.0742	Confirmed LTF	0.0742

13.5.5 Index 5

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747348	206315	28RED OAKB	JCP&L	206305	28RAR RVR	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	187.56	203.42	DC	147.17

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0637	50/50	0.0637
206271	28MCRC/REC	1.8899	50/50	1.8899
206325	28O C GEN (Deactivation : 17/09/2018)	29.6422	Adder	34.87
206327	28S RIV G1	7.5013	50/50	7.5013
206328	28S RIV G2	7.5013	50/50	7.5013
206329	28S RIV G3	10.1452	50/50	10.1452
206358	28PARLN1&2	4.7138	50/50	4.7138
206359	28PARLN3&4	5.7374	50/50	5.7374
206362	28RDOAKCT1	18.9925	50/50	18.9925
206365	28RDOAKST1	26.6331	50/50	26.6331
206370	LKWD CT3	30.6204	Adder	36.02
206412	28R11	264.0660	50/50	264.0660
207143	28BYD_X4-031	0.4945	50/50	0.4945
207144	28HOW_X1-037	0.2261	50/50	0.2261
207145	28FRN_Y2-051	0.0642	50/50	0.0642
207148	28MDF_W3-079	0.0914	50/50	0.0914
207204	28HOL_W1-112	0.0800	50/50	0.0800
207206	28TIN_W1-124	0.3239	50/50	0.3239
207400	28AA1-060 E	1.6224	Adder	1.91
901032	W1-024E OP1	0.1978	Adder	0.23
901112	W1-032 E OP1	0.1677	Adder	0.2
901912	W1-112E OP1	0.7563	50/50	0.7563
901982	W1-119 E	0.5946	Adder	0.7
901992	W1-120E	0.5946	Adder	0.7
902032	W1-124E	3.0807	50/50	3.0807
902082	W1-129E	0.3194	Adder	0.38
902322	W2-019 E	0.3780	Adder	0.44
902952	W2-082 E OP1	1.0924	Adder	1.29
903982	W3-079 E	0.8768	50/50	0.8768
905252	W4-025 E	0.4533	Adder	0.53
907082	X1-037 E	2.1390	50/50	2.1390
907272	X1-085 E	0.2533	Adder	0.3
912102	X4-015 E	0.3207	Adder	0.38
914092	Y2-051 E	0.6068	50/50	0.6068
917612	Z2-102 E	0.8767	Adder	1.03
919662	AA2-048 E	1.3949	50/50	1.3949
920732	AA2-184 E	3.4120	50/50	3.4120
923293	AB1-138 E	0.8696	Adder	1.02
923463	AB1-163 E	0.7058	Adder	0.83
939121	AE1-142 C O1	1.1706	Adder	1.38
939122	AE1-142 E O1	1.6845	Adder	1.98

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939981	AE1-238 C	66.6945	50/50	66.6945
939982	AE1-238 E	175.1842	50/50	175.1842
940161	AE2-000 C O1	30.2356	Adder	35.57
940162	AE2-000 E O1	77.3626	Adder	91.01
940401	AE2-024 C O1	28.9783	50/50	28.9783
940402	AE2-024 E O1	135.6734	50/50	135.6734
940411	AE2-025 C	14.6282	50/50	14.6282
940412	AE2-025 E	68.4817	50/50	68.4817
940691	AE2-056 C	0.3219	50/50	0.3219
940692	AE2-056 E	0.2816	50/50	0.2816
940701	AE2-057 C	0.0923	50/50	0.0923
940702	AE2-057 E	0.0923	50/50	0.0923
940921	AE2-081 C	0.3420	50/50	0.3420
940922	AE2-081 E	0.3520	50/50	0.3520
943521	AF1-023	2.4708	50/50	2.4708
943561	AF1-027	0.1803	Adder	0.21
944332	AF1-101 E O1	75.8462	Adder	89.23
944611	AF1-126 C O1	4.8106	Adder	5.66
944612	AF1-126 E O1	19.2423	Adder	22.64
945201	AF1-185 1	-1.0957	Adder	-1.29
945211	AF1-185 2	-0.2435	Adder	-0.29
945571	AF1-222 C	41.5729	50/50	41.5729
945572	AF1-222 E	109.6013	50/50	109.6013
945951	AF1-260	0.1993	50/50	0.1993
957271	AF2-021 C	0.8766	Adder	1.95
957272	AF2-021 E	1.3148	Adder	2.92
957781	AF2-072 C	4.6670	50/50	4.6670
957782	AF2-072 E	4.6670	50/50	4.6670
958761	AF2-167 C O2	1.0871	50/50	1.0871
958762	AF2-167 E O2	1.5013	50/50	1.5013
959151	AF2-206 C O2	1.2726	50/50	1.2726
959152	AF2-206 E O2	1.7564	50/50	1.7564
959631	AF2-254 C	0.2342	Adder	0.52
959632	AF2-254 E	0.3234	Adder	0.72
961221	AF2-413 O2	147.1750	50/50	147.1750
NEWTON	NEWTON	0.2944	Confirmed LTF	0.2944
FARMERCITY	FARMERCITY	0.0152	Confirmed LTF	0.0152
CALDERWOOD	CALDERWOOD	0.1257	Confirmed LTF	0.1257
NY	NY	1.5528	Confirmed LTF	1.5528
PRAIRIE	PRAIRIE	0.7000	Confirmed LTF	0.7000
O-066	O-066	33.8352	Confirmed LTF	33.8352
CHEOAH	CHEOAH	0.1261	Confirmed LTF	0.1261
EDWARDS	EDWARDS	0.0969	Confirmed LTF	0.0969
TILTON	TILTON	0.1745	Confirmed LTF	0.1745
G-007	G-007	29.7939	Confirmed LTF	29.7939
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1501	Confirmed LTF	0.1501
BLUEG	BLUEG	0.4774	Confirmed LTF	0.4774
TRIMBLE	TRIMBLE	0.1530	Confirmed LTF	0.1530
CATAWBA	CATAWBA	0.0822	Confirmed LTF	0.0822

13.5.6 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
99747651	206322	28PARLIN	JCP&L	206298	28WILLIAMS	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	97.75	106.26	DC	74.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206327	28S RIV G1	3.1534	50/50	3.1534
206328	28S RIV G2	3.1534	50/50	3.1534
206329	28S RIV G3	4.2648	50/50	4.2648
206358	28PARLN1&2	2.3716	50/50	2.3716
206359	28PARLN3&4	2.8865	50/50	2.8865
206362	28RDOAKCT1	7.5287	50/50	7.5287
206363	28RDOAKCT2	7.3681	50/50	7.3681
206364	28RDOAKCT3	7.3681	50/50	7.3681
206365	28RDOAKST1	10.5575	50/50	10.5575
206403	28W4-009	26.9750	50/50	26.9750
206412	28R11	111.0076	50/50	111.0076
206414	28X4-005E	3.6669	Adder	4.31
207401	AA1-060 BAT	1.7146	Merchant Transmission	1.7146
217724	BRIDGSP1_E	0.0413	Adder	0.05
218629	LAKENESP1_E	0.0456	Adder	0.05
218635	LAKENESP2_E	0.0337	Adder	0.04
219250	CENTRALDIV E	0.0259	Adder	0.03
902322	W2-019 E	-0.3065	Adder	-0.36
919663	AA2-048 BAT	1.1256	Merchant Transmission	1.1256
934841	AD1-113 (Suspended)	13.7509	Adder	16.18
939121	AE1-142 C O1	-0.9393	Adder	-1.11
940691	AE2-056 C	-0.2307	Adder	-0.27
940701	AE2-057 C	-0.0674	Adder	-0.08
940921	AE2-081 C	-0.2452	Adder	-0.29
944613	AF1-126 BAT	23.0450	Merchant Transmission	23.0450
945201	AF1-185 1	0.8251	Adder	0.97
945211	AF1-185 2	0.1833	Adder	0.22
957273	AF2-021 BAT	2.0935	Merchant Transmission	2.0935
957783	AF2-072 BAT	3.9549	Merchant Transmission	3.9549
961221	AF2-413 O2	74.0450	50/50	74.0450
NEWTON	NEWTON	0.2514	Confirmed LTF	0.2514
FARMERCITY	FARMERCITY	0.0132	Confirmed LTF	0.0132
G-007A	G-007A	51.7117	Confirmed LTF	51.7117
VFT	VFT	17.1506	Confirmed LTF	17.1506
CALDERWOOD	CALDERWOOD	0.1247	Confirmed LTF	0.1247
PRAIRIE	PRAIRIE	0.6122	Confirmed LTF	0.6122
CHEOAH	CHEOAH	0.1256	Confirmed LTF	0.1256
EDWARDS	EDWARDS	0.0812	Confirmed LTF	0.0812
TILTON	TILTON	0.1462	Confirmed LTF	0.1462
GIBSON	GIBSON	0.1278	Confirmed LTF	0.1278
BLUEG	BLUEG	0.4062	Confirmed LTF	0.4062

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1302	Confirmed LTF	0.1302
CATAWBA	CATAWBA	0.0927	Confirmed LTF	0.0927

13.5.7 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
99748190	206411	28R11RINGA	JCP&L	206286	28ATLANTIC	JCP&L	1	JC-P1-2-JCC-230-012	single	817.0	94.47	102.48	DC	65.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206327	28S RIV G1	3.3721	80/20	3.3721
206328	28S RIV G2	3.3721	80/20	3.3721
206329	28S RIV G3	4.5606	80/20	4.5606
206350	28RRCT1&2	3.1403	80/20	3.1403
206351	28RRCT3&4	2.9405	80/20	2.9405
206358	28PARLN1&2	2.0971	80/20	2.0971
206359	28PARLN3&4	2.5524	80/20	2.5524
206362	28RDOAKCT1	7.6253	80/20	7.6253
206363	28RDOAKCT2	7.8471	80/20	7.8471
206364	28RDOAKCT3	7.8471	80/20	7.8471
206365	28RDOAKST1	10.6930	80/20	10.6930
206403	28W4-009	28.1255	80/20	28.1255
206412	28R11	118.7076	80/20	118.7076
206767	28BRNX1-095	0.0097	80/20	0.0097
217723	BRIDGSP1_C	0.0054	80/20	0.0054
218628	LAKENESP1_C	0.0059	80/20	0.0059
218668	SOMERVSP1_C	0.0003	80/20	0.0003
218670	SOMERVSP2_C	0.0003	80/20	0.0003
219249	CENTRALDIV C	0.0035	80/20	0.0035
219630	LAKENESP2_C	0.0044	80/20	0.0044
934841	AD1-113 (Suspended)	16.8675	80/20	16.8675
939121	AE1-142 C O1	-0.9826	Adder	-1.16
940691	AE2-056 C	-0.2033	Adder	-0.24
940701	AE2-057 C	-0.0555	Adder	-0.07
940921	AE2-081 C	-0.2160	Adder	-0.25
945201	AF1-185 1	1.0121	80/20	1.0121
945211	AF1-185 2	0.2249	80/20	0.2249
961221	AF2-413 O2	65.4750	80/20	65.4750
NEWTON	NEWTON	0.2611	Confirmed LTF	0.2611
FARMERCITY	FARMERCITY	0.0137	Confirmed LTF	0.0137
G-007A	G-007A	53.9198	Confirmed LTF	53.9198
VFT	VFT	17.9116	Confirmed LTF	17.9116
CALDERWOOD	CALDERWOOD	0.1292	Confirmed LTF	0.1292
PRAIRIE	PRAIRIE	0.6354	Confirmed LTF	0.6354
CHEOAH	CHEOAH	0.1301	Confirmed LTF	0.1301
EDWARDS	EDWARDS	0.0840	Confirmed LTF	0.0840
TILTON	TILTON	0.1518	Confirmed LTF	0.1518
GIBSON	GIBSON	0.1321	Confirmed LTF	0.1321
BLUEG	BLUEG	0.4201	Confirmed LTF	0.4201
TRIMBLE	TRIMBLE	0.1347	Confirmed LTF	0.1347
CATAWBA	CATAWBA	0.0962	Confirmed LTF	0.0962

13.5.8 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
100376108	218331	KILMER_I	PSE&G	218333	LNELSN_I	PSE&G	1	JC-P2-3-JCC-230-026FT	breaker	805.0	161.22	176.02	DC	118.84

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.5357	Adder	1.81
206325	28O C GEN (Deactivation : 17/09/2018)	29.4168	Adder	34.61
206327	28S RIV G1	6.1187	50/50	6.1187
206328	28S RIV G2	6.1187	50/50	6.1187
206329	28S RIV G3	8.2752	50/50	8.2752
206358	28PARLN1&2	3.8061	50/50	3.8061
206359	28PARLN3&4	4.6326	50/50	4.6326
206362	28RDOAKCT1	14.9172	50/50	14.9172
206363	28RDOAKCT2	14.8848	50/50	14.8848
206364	28RDOAKCT3	14.8848	50/50	14.8848
206365	28RDOAKST1	20.9184	50/50	20.9184
206370	LKWD CT3	30.4028	Adder	35.77
206403	28W4-009	65.5216	50/50	65.5216
206412	28R11	215.3932	50/50	215.3932
206414	28X4-005E	10.4786	50/50	10.4786
207143	28BYD_X4-031	0.4223	Adder	0.5
207400	28AA1-060 E	1.9534	Adder	2.3
207419	AB2-139 E	0.0677	Adder	0.08
207420	AC1-207 C	0.8612	Adder	1.01
901032	W1-024E OP1	0.3838	Adder	0.45
901112	W1-032 E OP1	0.2327	Adder	0.27
901422	W1-113 E	0.7743	Adder	0.91
901912	W1-112E OP1	0.7022	Adder	0.83
901982	W1-119 E	0.6178	Adder	0.73
901992	W1-120E	0.6178	Adder	0.73
902032	W1-124E	2.4896	Adder	2.93
902082	W1-129E	0.3354	Adder	0.39
902322	W2-019 E	0.3977	Adder	0.47
902912	W2-078 E	0.8672	Adder	1.02
902952	W2-082 E OP1	1.1450	Adder	1.35
903982	W3-079 E	0.7394	Adder	0.87
905252	W4-025 E	0.4760	Adder	0.56
905502	W4-060 E OP1	1.9766	Adder	2.33
907082	X1-037 E	2.0711	Adder	2.44
907272	X1-085 E	0.3393	Adder	0.4
912102	X4-015 E	0.3365	Adder	0.4
914092	Y2-051 E	0.5132	Adder	0.6
917612	Z2-102 E	0.9111	Adder	1.07
919662	AA2-048 E	1.1763	Adder	1.38
920732	AA2-184 E	2.7715	Adder	3.26

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923293	AB1-138 E	0.8685	Adder	1.02
923463	AB1-163 E	0.7109	Adder	0.84
927132	AC1-207 E	1.4412	Adder	1.7
934841	AD1-113 (Suspended)	39.2948	50/50	39.2948
939121	AE1-142 C O1	1.1632	Adder	1.37
939122	AE1-142 E O1	1.6739	Adder	1.97
939981	AE1-238 C	51.9626	Adder	61.13
939982	AE1-238 E	136.4885	Adder	160.57
940161	AE2-000 C O1	30.0056	Adder	35.3
940162	AE2-000 E O1	76.7741	Adder	90.32
940401	AE2-024 C O1	24.4561	Adder	28.77
940402	AE2-024 E O1	114.5008	Adder	134.71
940411	AE2-025 C	12.3454	Adder	14.52
940412	AE2-025 E	57.7947	Adder	67.99
940691	AE2-056 C	0.3135	Adder	0.37
940692	AE2-056 E	0.2743	Adder	0.32
940701	AE2-057 C	0.0979	Adder	0.12
940702	AE2-057 E	0.0979	Adder	0.12
940921	AE2-081 C	0.3331	Adder	0.39
940922	AE2-081 E	0.3429	Adder	0.4
940931	AE2-082 C	0.5623	Adder	0.66
940932	AE2-082 E	0.5954	Adder	0.7
943521	AF1-023	2.0070	Adder	2.36
943561	AF1-027	0.2170	Adder	0.26
944332	AF1-101 E O1	75.2692	Adder	88.55
944611	AF1-126 C O1	4.8029	Adder	5.65
944612	AF1-126 E O1	19.2117	Adder	22.6
945571	AF1-222 C	32.3900	Adder	38.11
945572	AF1-222 E	85.3919	Adder	100.46
945951	AF1-260	0.1680	Adder	0.2
957271	AF2-021 C	0.8681	Adder	1.93
957272	AF2-021 E	1.3022	Adder	2.89
957781	AF2-072 C	2.0875	Adder	4.63
957782	AF2-072 E	2.0875	Adder	4.63
958761	AF2-167 C O2	0.4451	Adder	0.99
958762	AF2-167 E O2	0.6146	Adder	1.36
959151	AF2-206 C O2	0.5700	Adder	1.27
959152	AF2-206 E O2	0.7867	Adder	1.75
959631	AF2-254 C	0.2450	Adder	0.54
959632	AF2-254 E	0.3383	Adder	0.75
961221	AF2-413 O2	118.8350	50/50	118.8350
NEWTON	NEWTON	0.6178	Confirmed LTF	0.6178
FARMERCITY	FARMERCITY	0.0321	Confirmed LTF	0.0321
G-007A	G-007A	125.6122	Confirmed LTF	125.6122
CALDERWOOD	CALDERWOOD	0.2748	Confirmed LTF	0.2748
NY	NY	1.6728	Confirmed LTF	1.6728
PRAIRIE	PRAIRIE	1.4749	Confirmed LTF	1.4749
O-066	O-066	33.4589	Confirmed LTF	33.4589
CHEOAH	CHEOAH	0.2763	Confirmed LTF	0.2763
EDWARDS	EDWARDS	0.2023	Confirmed LTF	0.2023
TILTON	TILTON	0.3641	Confirmed LTF	0.3641
MADISON	MADISON	0.0121	Confirmed LTF	0.0121

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
GIBSON	GIBSON	0.3145	Confirmed LTF	0.3145
BLUEG	BLUEG	0.9999	Confirmed LTF	0.9999
TRIMBLE	TRIMBLE	0.3205	Confirmed LTF	0.3205
CATAWBA	CATAWBA	0.1869	Confirmed LTF	0.1869

13.5.9 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 LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100376122	218332	KILMER_W	PSE&G	218334	LNELSN_W	PSE&G	1	JC-P2-3-JCC-230-026HT	breaker	679.0	156.29	169.22	DC	87.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.1420	Adder	1.34
206325	28O C GEN (Deactivation : 17/09/2018)	22.1901	Adder	26.11
206327	28S RIV G1	4.5099	50/50	4.5099
206328	28S RIV G2	4.5099	50/50	4.5099
206329	28S RIV G3	6.0994	50/50	6.0994
206358	28PARLN1&2	2.8063	50/50	2.8063
206359	28PARLN3&4	3.4157	50/50	3.4157
206362	28RDOAKCT1	10.9932	50/50	10.9932
206363	28RDOAKCT2	10.9695	50/50	10.9695
206364	28RDOAKCT3	10.9695	50/50	10.9695
206365	28RDOAKST1	15.4157	50/50	15.4157
206370	LKWD CT3	22.8514	Adder	26.88
206403	28W4-009	48.2561	50/50	48.2561
206412	28R11	158.7608	50/50	158.7608
206414	28X4-005E	7.7174	50/50	7.7174
207143	28BYD_X4-031	0.3148	Adder	0.37
207400	28AA1-060 E	1.4847	Adder	1.75
207419	AB2-139 E	0.0509	Adder	0.06
207420	AC1-207 C	0.6455	Adder	0.76
901032	W1-024E OP1	0.2888	Adder	0.34
901112	W1-032 E OP1	0.1764	Adder	0.21
901422	W1-113 E	0.5829	Adder	0.69
901912	W1-112E OP1	0.5204	Adder	0.61
901982	W1-119 E	0.4683	Adder	0.55
901992	W1-120E	0.4683	Adder	0.55
902032	W1-124E	1.8512	Adder	2.18
902082	W1-129E	0.2546	Adder	0.3
902322	W2-019 E	0.3020	Adder	0.36
902912	W2-078 E	0.6528	Adder	0.77
902952	W2-082 E OP1	0.8689	Adder	1.02
903982	W3-079 E	0.5542	Adder	0.65
905252	W4-025 E	0.3614	Adder	0.43
905502	W4-060 E OP1	1.4622	Adder	1.72
907082	X1-037 E	1.5467	Adder	1.82
907272	X1-085 E	0.2580	Adder	0.3
912102	X4-015 E	0.2554	Adder	0.3
914092	Y2-051 E	0.3849	Adder	0.45
917612	Z2-102 E	0.6906	Adder	0.81
919662	AA2-048 E	0.8817	Adder	1.04
920732	AA2-184 E	2.0605	Adder	2.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923293	AB1-138 E	0.6535	Adder	0.77
923463	AB1-163 E	0.5351	Adder	0.63
927132	AC1-207 E	1.0802	Adder	1.27
934841	AD1-113 (Suspended)	28.9403	50/50	28.9403
937513	AD2-210 BAT (Suspended)	0.1638	Merchant Transmission	0.1638
939121	AE1-142 C O1	0.8756	Adder	1.03
939122	AE1-142 E O1	1.2601	Adder	1.48
939981	AE1-238 C	38.6593	Adder	45.48
939982	AE1-238 E	101.5450	Adder	119.46
940161	AE2-000 C O1	22.6343	Adder	26.63
940162	AE2-000 E O1	57.9135	Adder	68.13
940401	AE2-024 C O1	18.3668	Adder	21.61
940402	AE2-024 E O1	85.9914	Adder	101.17
940411	AE2-025 C	9.2716	Adder	10.91
940412	AE2-025 E	43.4045	Adder	51.06
940691	AE2-056 C	0.2341	Adder	0.28
940692	AE2-056 E	0.2048	Adder	0.24
940701	AE2-057 C	0.0731	Adder	0.09
940702	AE2-057 E	0.0731	Adder	0.09
940921	AE2-081 C	0.2487	Adder	0.29
940922	AE2-081 E	0.2561	Adder	0.3
940931	AE2-082 C	0.4222	Adder	0.5
940932	AE2-082 E	0.4470	Adder	0.53
943521	AF1-023	1.4921	Adder	1.76
943561	AF1-027	0.1650	Adder	0.19
944332	AF1-101 E O1	56.7783	Adder	66.8
944611	AF1-126 C O1	3.6592	Adder	4.3
944612	AF1-126 E O1	14.6370	Adder	17.22
945571	AF1-222 C	24.0976	Adder	28.35
945572	AF1-222 E	63.5301	Adder	74.74
945951	AF1-260	0.1260	Adder	0.15
957271	AF2-021 C	0.6594	Adder	1.46
957272	AF2-021 E	0.9891	Adder	2.2
957781	AF2-072 C	1.5677	Adder	3.48
957782	AF2-072 E	1.5677	Adder	3.48
958761	AF2-167 C O2	0.3306	Adder	0.73
958762	AF2-167 E O2	0.4566	Adder	1.01
959151	AF2-206 C O2	0.4274	Adder	0.95
959152	AF2-206 E O2	0.5898	Adder	1.31
959631	AF2-254 C	0.1858	Adder	0.41
959632	AF2-254 E	0.2566	Adder	0.57
961221	AF2-413 O2	87.6200	50/50	87.6200
NEWTON	NEWTON	0.3804	Confirmed LTF	0.3804
FARMERCITY	FARMERCITY	0.0197	Confirmed LTF	0.0197
G-007A	G-007A	92.5123	Confirmed LTF	92.5123
CALDERWOOD	CALDERWOOD	0.1660	Confirmed LTF	0.1660
NY	NY	1.6955	Confirmed LTF	1.6955
PRAIRIE	PRAIRIE	0.9066	Confirmed LTF	0.9066
O-066	O-066	39.0768	Confirmed LTF	39.0768
CHEOAH	CHEOAH	0.1672	Confirmed LTF	0.1672
EDWARDS	EDWARDS	0.1249	Confirmed LTF	0.1249
TILTON	TILTON	0.2249	Confirmed LTF	0.2249

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1938	Confirmed LTF	0.1938
BLUEG	BLUEG	0.6163	Confirmed LTF	0.6163
TRIMBLE	TRIMBLE	0.1976	Confirmed LTF	0.1976
CATAWBA	CATAWBA	0.1109	Confirmed LTF	0.1109

13.5.10 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
99748997	206286	28ATLANTIC	JCP&L	206310	28NEWPROSP	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	103.16	105.31	DC	39.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.7504	50/50	1.7504
206306	28LKWD G1	3.2704	50/50	3.2704
206308	28LKWD G2	3.2704	50/50	3.2704
206312	28LKWD G3	2.3693	50/50	2.3693
206325	28O C GEN (Deactivation : 17/09/2018)	36.5670	Adder	43.02
206366	28LKWD CT1	6.5917	50/50	6.5917
206367	28LKWD CT2	6.5917	50/50	6.5917
206370	LKWD CT3	45.4660	50/50	45.4660
206412	28R11	55.8382	Adder	65.69
206414	28X4-005E	2.1213	Adder	2.5
207143	28BYD_X4-031	0.4548	50/50	0.4548
207145	28FRN_Y2-051	0.0759	50/50	0.0759
207148	28MDF_W3-079	0.1060	50/50	0.1060
207204	28HOL_W1-112	0.0619	50/50	0.0619
207206	28TIN_W1-124	0.3008	50/50	0.3008
207400	28AA1-060 E	1.4422	Adder	1.7
207419	AB2-139 E	-0.0230	Adder	-0.03
218629	LAKENESP1_E	0.0254	Adder	0.03
218635	LAKENESP2_E	0.0174	Adder	0.02
901912	W1-112E OP1	0.5858	50/50	0.5858
901982	W1-119 E	0.6711	Adder	0.79
901992	W1-120E	0.6711	Adder	0.79
902032	W1-124E	2.8613	50/50	2.8613
902082	W1-129E	0.3515	Adder	0.41
902322	W2-019 E	0.4145	Adder	0.49
902952	W2-082 E OP1	1.2081	Adder	1.42
903982	W3-079 E	1.0162	50/50	1.0162
905252	W4-025 E	0.4990	Adder	0.59
905502	W4-060 E OP1	0.8295	Adder	0.98
907082	X1-037 E	1.3357	Adder	1.57
907272	X1-085 E	0.1787	Adder	0.21
912102	X4-015 E	0.3537	Adder	0.42
914092	Y2-051 E	0.7175	50/50	0.7175
917612	Z2-102 E	0.9891	Adder	1.16
919662	AA2-048 E	1.6167	50/50	1.6167
920732	AA2-184 E	3.1362	50/50	3.1362
923293	AB1-138 E	1.0602	Adder	1.25
923463	AB1-163 E	0.8313	Adder	0.98
923791	AB2-014	0.3176	50/50	0.3176
930001	AB1-001 C	0.0497	Adder	0.06
930002	AB1-001 E	0.0816	Adder	0.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934351	AD1-059	0.5843	50/50	0.5843
934841	AD1-113 (Suspended)	7.9547	Adder	9.36
939121	AE1-142 C O1	1.7149	50/50	1.7149
939122	AE1-142 E O1	2.4677	50/50	2.4677
939981	AE1-238 C	65.3760	50/50	65.3760
939982	AE1-238 E	171.7210	50/50	171.7210
940161	AE2-000 C O1	37.2990	Adder	43.88
940162	AE2-000 E O1	95.4353	Adder	112.28
940401	AE2-024 C O1	36.7833	50/50	36.7833
940402	AE2-024 E O1	172.2154	50/50	172.2154
940411	AE2-025 C	18.5682	50/50	18.5682
940412	AE2-025 E	86.9264	50/50	86.9264
940691	AE2-056 C	0.1985	Adder	0.23
940692	AE2-056 E	0.1737	Adder	0.2
940701	AE2-057 C	0.0420	Adder	0.05
940702	AE2-057 E	0.0420	Adder	0.05
940921	AE2-081 C	0.2109	Adder	0.25
940922	AE2-081 E	0.2171	Adder	0.26
943521	AF1-023	2.2710	50/50	2.2710
943561	AF1-027	0.1602	Adder	0.19
944332	AF1-101 E O1	93.5646	Adder	110.08
944611	AF1-126 C O1	5.5688	Adder	6.55
944612	AF1-126 E O1	22.2751	Adder	26.21
945201	AF1-185 1	0.4773	Adder	0.56
945211	AF1-185 2	0.1061	Adder	0.12
945571	AF1-222 C	40.7510	50/50	40.7510
945572	AF1-222 E	107.4346	50/50	107.4346
945951	AF1-260	0.2310	50/50	0.2310
957271	AF2-021 C	1.0341	Adder	2.3
957272	AF2-021 E	1.5511	Adder	3.44
957772	AF2-071 BAT	4.5447	Merchant Transmission	4.5447
957781	AF2-072 C	5.9240	50/50	5.9240
957782	AF2-072 E	5.9240	50/50	5.9240
958761	AF2-167 C O2	0.9745	50/50	0.9745
958762	AF2-167 E O2	1.3457	50/50	1.3457
959151	AF2-206 C O2	1.4858	50/50	1.4858
959152	AF2-206 E O2	2.0508	50/50	2.0508
959631	AF2-254 C	0.2603	Adder	0.58
959632	AF2-254 E	0.3595	Adder	0.8
961221	AF2-413 O2	17.9108	Adder	39.76
NEWTON	NEWTON	0.3503	Confirmed LTF	0.3503
FARMERCITY	FARMERCITY	0.0183	Confirmed LTF	0.0183
G-007A	G-007A	29.9160	Confirmed LTF	29.9160
CALDERWOOD	CALDERWOOD	0.1605	Confirmed LTF	0.1605
NY	NY	0.1167	Confirmed LTF	0.1167
PRAIRIE	PRAIRIE	0.8421	Confirmed LTF	0.8421
CHEOAH	CHEOAH	0.1617	Confirmed LTF	0.1617
EDWARDS	EDWARDS	0.1144	Confirmed LTF	0.1144
TILTON	TILTON	0.2060	Confirmed LTF	0.2060
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.1785	Confirmed LTF	0.1785
BLUEG	BLUEG	0.5677	Confirmed LTF	0.5677

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1820	Confirmed LTF	0.1820
CATAWBA	CATAWBA	0.1123	Confirmed LTF	0.1123

13.5.11 Index 11

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
99749028	206310	28NEWPROSP	JCP&L	206309	28SMITHBRG	JCP&L	1	JC-P7-1-JCC-230-7A	tower	813.0	99.36	101.51	DC	39.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.7504	50/50	1.7504
206306	28LKWD G1	3.2704	50/50	3.2704
206308	28LKWD G2	3.2704	50/50	3.2704
206312	28LKWD G3	2.3693	50/50	2.3693
206325	28O C GEN (Deactivation : 17/09/2018)	36.5670	Adder	43.02
206366	28LKWD CT1	6.5917	50/50	6.5917
206367	28LKWD CT2	6.5917	50/50	6.5917
206370	LKWD CT3	45.4660	50/50	45.4660
206412	28R11	55.8382	Adder	65.69
206414	28X4-005E	2.1213	Adder	2.5
207143	28BYD_X4-031	0.4548	50/50	0.4548
207145	28FRN_Y2-051	0.0759	50/50	0.0759
207148	28MDF_W3-079	0.1060	50/50	0.1060
207204	28HOL_W1-112	0.0619	50/50	0.0619
207206	28TIN_W1-124	0.3008	50/50	0.3008
207400	28AA1-060 E	1.4422	Adder	1.7
207419	AB2-139 E	-0.0230	Adder	-0.03
218629	LAKENESP1_E	0.0254	Adder	0.03
218635	LAKENESP2_E	0.0174	Adder	0.02
901912	W1-112E OP1	0.5858	50/50	0.5858
901982	W1-119 E	0.6711	Adder	0.79
901992	W1-120E	0.6711	Adder	0.79
902032	W1-124E	2.8613	50/50	2.8613
902082	W1-129E	0.3515	Adder	0.41
902322	W2-019 E	0.4145	Adder	0.49
902952	W2-082 E OP1	1.2081	Adder	1.42
903982	W3-079 E	1.0162	50/50	1.0162
905252	W4-025 E	0.4990	Adder	0.59
905502	W4-060 E OP1	0.8295	Adder	0.98
907082	X1-037 E	1.3357	Adder	1.57
907272	X1-085 E	0.1787	Adder	0.21
912102	X4-015 E	0.3537	Adder	0.42
914092	Y2-051 E	0.7175	50/50	0.7175
917612	Z2-102 E	0.9891	Adder	1.16
919662	AA2-048 E	1.6167	50/50	1.6167
920732	AA2-184 E	3.1362	50/50	3.1362
923293	AB1-138 E	1.0602	Adder	1.25
923463	AB1-163 E	0.8313	Adder	0.98
923791	AB2-014	0.3176	50/50	0.3176
930001	AB1-001 C	0.0497	Adder	0.06
930002	AB1-001 E	0.0816	Adder	0.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934351	AD1-059	0.5843	50/50	0.5843
934841	AD1-113 (Suspended)	7.9547	Adder	9.36
939121	AE1-142 C O1	1.7149	50/50	1.7149
939122	AE1-142 E O1	2.4677	50/50	2.4677
939981	AE1-238 C	65.3760	50/50	65.3760
939982	AE1-238 E	171.7210	50/50	171.7210
940161	AE2-000 C O1	37.2990	Adder	43.88
940162	AE2-000 E O1	95.4353	Adder	112.28
940401	AE2-024 C O1	36.7833	50/50	36.7833
940402	AE2-024 E O1	172.2154	50/50	172.2154
940411	AE2-025 C	18.5682	50/50	18.5682
940412	AE2-025 E	86.9264	50/50	86.9264
940691	AE2-056 C	0.1985	Adder	0.23
940692	AE2-056 E	0.1737	Adder	0.2
940701	AE2-057 C	0.0420	Adder	0.05
940702	AE2-057 E	0.0420	Adder	0.05
940921	AE2-081 C	0.2109	Adder	0.25
940922	AE2-081 E	0.2171	Adder	0.26
943521	AF1-023	2.2710	50/50	2.2710
943561	AF1-027	0.1602	Adder	0.19
944332	AF1-101 E O1	93.5646	Adder	110.08
944611	AF1-126 C O1	5.5688	Adder	6.55
944612	AF1-126 E O1	22.2751	Adder	26.21
945201	AF1-185 1	0.4773	Adder	0.56
945211	AF1-185 2	0.1061	Adder	0.12
945571	AF1-222 C	40.7510	50/50	40.7510
945572	AF1-222 E	107.4346	50/50	107.4346
945951	AF1-260	0.2310	50/50	0.2310
957271	AF2-021 C	1.0341	Adder	2.3
957272	AF2-021 E	1.5511	Adder	3.44
957772	AF2-071 BAT	4.5447	Merchant Transmission	4.5447
957781	AF2-072 C	5.9240	50/50	5.9240
957782	AF2-072 E	5.9240	50/50	5.9240
958761	AF2-167 C O2	0.9745	50/50	0.9745
958762	AF2-167 E O2	1.3457	50/50	1.3457
959151	AF2-206 C O2	1.4858	50/50	1.4858
959152	AF2-206 E O2	2.0508	50/50	2.0508
959631	AF2-254 C	0.2603	Adder	0.58
959632	AF2-254 E	0.3595	Adder	0.8
961221	AF2-413 O2	17.9108	Adder	39.76
NEWTON	NEWTON	0.3503	Confirmed LTF	0.3503
FARMERCITY	FARMERCITY	0.0183	Confirmed LTF	0.0183
G-007A	G-007A	29.9160	Confirmed LTF	29.9160
CALDERWOOD	CALDERWOOD	0.1605	Confirmed LTF	0.1605
NY	NY	0.1167	Confirmed LTF	0.1167
PRAIRIE	PRAIRIE	0.8421	Confirmed LTF	0.8421
CHEOAH	CHEOAH	0.1617	Confirmed LTF	0.1617
EDWARDS	EDWARDS	0.1144	Confirmed LTF	0.1144
TILTON	TILTON	0.2060	Confirmed LTF	0.2060
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.1785	Confirmed LTF	0.1785
BLUEG	BLUEG	0.5677	Confirmed LTF	0.5677

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.1820	Confirmed LTF	0.1820
CATAWBA	CATAWBA	0.1123	Confirmed LTF	0.1123

13.5.12 Index 12

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
109131002	206410	28R11RINGB	JCP&L	206322	28PARLIN	JCP&L	1	JC-P2-3-JCC-230-83	breaker	869.0	86.57	106.79	DC	175.81

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206327	28S RIV G1	3.1609	50/50	3.1609
206328	28S RIV G2	3.1609	50/50	3.1609
206329	28S RIV G3	4.2749	50/50	4.2749
206350	28RRCT1&2	3.0201	50/50	3.0201
206362	28RDOAKCT1	7.5467	50/50	7.5467
206363	28RDOAKCT2	7.3858	50/50	7.3858
206364	28RDOAKCT3	7.3858	50/50	7.3858
206365	28RDOAKST1	10.5827	50/50	10.5827
206403	28W4-009	27.0488	50/50	27.0488
206412	28R11	111.2716	50/50	111.2716
206414	28X4-005E	3.6769	Adder	4.33
207401	AA1-060 BAT	1.7026	Merchant Transmission	1.7026
218629	LAKENESP1_E	0.0458	Adder	0.05
218635	LAKENESP2_E	0.0339	Adder	0.04
902322	W2-019 E	-0.3047	Adder	-0.36
919663	AA2-048 BAT	1.1214	Merchant Transmission	1.1214
934841	AD1-113 (Suspended)	13.7885	Adder	16.22
939121	AE1-142 C O1	-0.9351	Adder	-1.1
940691	AE2-056 C	-0.2299	Adder	-0.27
940701	AE2-057 C	-0.0672	Adder	-0.08
940921	AE2-081 C	-0.2443	Adder	-0.29
944613	AF1-126 BAT	22.8950	Merchant Transmission	22.8950
945201	AF1-185 1	0.8273	Adder	0.97
945211	AF1-185 2	0.1838	Adder	0.22
957273	AF2-021 BAT	2.0808	Merchant Transmission	2.0808
957783	AF2-072 BAT	3.9392	Merchant Transmission	3.9392
961222	AF2-413 BAT	175.8075	50/50	175.8075
NEWTON	NEWTON	0.1870	Confirmed LTF	0.1870
FARMERCITY	FARMERCITY	0.0099	Confirmed LTF	0.0099
G-007A	G-007A	51.8555	Confirmed LTF	51.8555
VFT	VFT	17.5375	Confirmed LTF	17.5375
CALDERWOOD	CALDERWOOD	0.0949	Confirmed LTF	0.0949
PRAIRIE	PRAIRIE	0.4572	Confirmed LTF	0.4572
CHEOAH	CHEOAH	0.0956	Confirmed LTF	0.0956
EDWARDS	EDWARDS	0.0602	Confirmed LTF	0.0602
TILTON	TILTON	0.1084	Confirmed LTF	0.1084
GIBSON	GIBSON	0.0950	Confirmed LTF	0.0950
BLUEG	BLUEG	0.3021	Confirmed LTF	0.3021
TRIMBLE	TRIMBLE	0.0968	Confirmed LTF	0.0968
CATAWBA	CATAWBA	0.0718	Confirmed LTF	0.0718

13.5.13 Index 13

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747641	206411	28R11RINGA	JCP&L	206410	28R11RINGB	JCP&L	1	JC-P2-3-JCC-230-85	breaker	999.0	101.97	106.99	DC	57.66

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.4091	50/50	1.4091
206325	28O C GEN (Deactivation : 17/09/2018)	23.1188	Adder	27.2
206327	28S RIV G1	8.6181	50/50	8.6181
206328	28S RIV G2	8.6181	50/50	8.6181
206329	28S RIV G3	11.6556	50/50	11.6556
206358	28PARLN1&2	1.8467	50/50	1.8467
206359	28PARLN3&4	2.2477	50/50	2.2477
206367	28LKWD CT2	4.0644	50/50	4.0644
206370	LKWD CT3	23.8289	Adder	28.03
206412	28R11	303.3800	50/50	303.3800
206414	28X4-005E	-3.6460	Adder	-4.29
207143	28BYD_X4-031	0.3675	50/50	0.3675
207144	28HOW_X1-037	0.1627	50/50	0.1627
207145	28FRN_Y2-051	0.0494	50/50	0.0494
207148	28MDF_W3-079	0.0703	50/50	0.0703
207204	28HOL_W1-112	0.0498	50/50	0.0498
207206	28TIN_W1-124	0.2425	50/50	0.2425
207400	28AA1-060 E	1.2508	Adder	1.47
901112	W1-032 E OP1	0.1275	Adder	0.15
901912	W1-112E OP1	0.4712	50/50	0.4712
901982	W1-119 E	0.4629	Adder	0.54
901992	W1-120E	0.4629	Adder	0.54
902032	W1-124E	2.3060	50/50	2.3060
902082	W1-129E	0.2486	Adder	0.29
902322	W2-019 E	0.2943	Adder	0.35
902952	W2-082 E OP1	0.8506	Adder	1.0
903982	W3-079 E	0.6743	50/50	0.6743
905252	W4-025 E	0.3529	Adder	0.42
907082	X1-037 E	1.5389	50/50	1.5389
912102	X4-015 E	0.2497	Adder	0.29
914092	Y2-051 E	0.4677	50/50	0.4677
917612	Z2-102 E	0.6826	Adder	0.8
919662	AA2-048 E	1.0727	50/50	1.0727
920732	AA2-184 E	2.5394	50/50	2.5394
923293	AB1-138 E	0.6751	Adder	0.79
923463	AB1-163 E	0.5464	Adder	0.64
939121	AE1-142 C O1	0.9115	Adder	1.07
939122	AE1-142 E O1	1.3117	Adder	1.54
939981	AE1-238 C	52.0088	50/50	52.0088
939982	AE1-238 E	136.6097	50/50	136.6097
940161	AE2-000 C O1	23.5816	Adder	27.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940162	AE2-000 E O1	60.3371	Adder	70.98
940401	AE2-024 C O1	22.5425	50/50	22.5425
940402	AE2-024 E O1	105.5415	50/50	105.5415
940411	AE2-025 C	11.3794	50/50	11.3794
940412	AE2-025 E	53.2725	50/50	53.2725
940691	AE2-056 C	0.2312	50/50	0.2312
940692	AE2-056 E	0.2023	50/50	0.2023
940701	AE2-057 C	0.0546	Adder	0.06
940702	AE2-057 E	0.0546	Adder	0.06
940921	AE2-081 C	0.2457	50/50	0.2457
940922	AE2-081 E	0.2529	50/50	0.2529
943521	AF1-023	1.8388	50/50	1.8388
943561	AF1-027	0.1390	Adder	0.16
944332	AF1-101 E O1	59.1544	Adder	69.59
944611	AF1-126 C O1	3.7719	Adder	4.44
944612	AF1-126 E O1	15.0875	Adder	17.75
945201	AF1-185 1	-0.8203	Adder	-0.97
945211	AF1-185 2	-0.1823	Adder	-0.21
945571	AF1-222 C	32.4188	50/50	32.4188
945572	AF1-222 E	85.4677	50/50	85.4677
945951	AF1-260	0.1532	50/50	0.1532
957271	AF2-021 C	0.6869	Adder	1.52
957272	AF2-021 E	1.0303	Adder	2.29
957781	AF2-072 C	3.6305	50/50	3.6305
957782	AF2-072 E	3.6305	50/50	3.6305
958761	AF2-167 C O2	0.8094	50/50	0.8094
958762	AF2-167 E O2	1.1177	50/50	1.1177
959151	AF2-206 C O2	0.9792	50/50	0.9792
959152	AF2-206 E O2	1.3516	50/50	1.3516
959631	AF2-254 C	0.1823	Adder	0.4
959632	AF2-254 E	0.2518	Adder	0.56
961221	AF2-413 O2	57.6575	50/50	57.6575
WEC	WEC	0.0028	Confirmed LTF	0.0028
LGEE	LGEE	0.0063	Confirmed LTF	0.0063
CPL	CPL	0.0351	Confirmed LTF	0.0351
CBM-W2	CBM-W2	0.1392	Confirmed LTF	0.1392
NY	NY	1.0546	Confirmed LTF	1.0546
CBM-W1	CBM-W1	0.0751	Confirmed LTF	0.0751
TVA	TVA	0.0322	Confirmed LTF	0.0322
O-066	O-066	24.1651	Confirmed LTF	24.1651
CBM-S2	CBM-S2	0.2543	Confirmed LTF	0.2543
CBM-S1	CBM-S1	0.1789	Confirmed LTF	0.1789
G-007	G-007	22.3049	Confirmed LTF	22.3049
MADISON	MADISON	0.0081	Confirmed LTF	0.0081
MEC	MEC	0.0191	Confirmed LTF	0.0191

13.5.14 Index 14

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
99747393	206294	28LARRABEE	JCP&L	206309	28SMITHBRG	JCP&L	2	JC-P2-3-JCC-230-15F	breaker	813.0	169.19	170.45	DC	22.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.0635	Adder	1.25
206280	28LAKEHURS	0.7655	50/50	0.7655
206306	28LKWD G1	5.1218	50/50	5.1218
206308	28LKWD G2	5.1218	50/50	5.1218
206312	28LKWD G3	3.7106	50/50	3.7106
206325	28O C GEN (Deactivation : 17/09/2018)	57.4750	Adder	67.62
206366	28LKWD CT1	10.3235	50/50	10.3235
206367	28LKWD CT2	10.3235	50/50	10.3235
206370	LKWD CT3	71.2060	50/50	71.2060
206412	28R11	31.3375	Adder	36.87
207143	28BYD_X4-031	0.3462	Adder	0.41
207145	28FRN_Y2-051	0.1032	50/50	0.1032
207148	28MDF_W3-079	0.1447	50/50	0.1447
207400	28AA1-060 E	2.3542	Adder	2.77
207419	AB2-139 E	-0.0276	Adder	-0.03
227928	V4-067E	0.1293	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	9.9677	Adder	11.73
901912	W1-112E OP1	0.3069	Adder	0.36
901982	W1-119 E	1.0538	Adder	1.24
901992	W1-120E	1.0538	Adder	1.24
902032	W1-124E	1.7146	Adder	2.02
902082	W1-129E	0.5531	Adder	0.65
902322	W2-019 E	0.6524	Adder	0.77
902432	W2-030 E	0.4583	Adder	0.54
902952	W2-082 E OP1	1.9000	Adder	2.24
903982	W3-079 E	1.3871	50/50	1.3871
905252	W4-025 E	0.7850	Adder	0.92
905502	W4-060 E OP1	0.4647	Adder	0.55
907082	X1-037 E	1.2820	Adder	1.51
907272	X1-085 E	0.3061	Adder	0.36
912102	X4-015 E	0.5564	Adder	0.65
914092	Y2-051 E	0.9757	50/50	0.9757
917612	Z2-102 E	1.5531	Adder	1.83
919662	AA2-048 E	2.2068	50/50	2.2068
920732	AA2-184 E	1.8523	Adder	2.18
923292	AB1-138 C	0.1955	50/50	0.1955
923293	AB1-138 E	1.8886	50/50	1.8886
923463	AB1-163 E	1.2288	Adder	1.45
923791	AB2-014	0.4974	50/50	0.4974

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924701	AB2-122 C	0.0558	Adder	0.07
924702	AB2-122 E	0.0957	Adder	0.11
930001	AB1-001 C	0.0824	Adder	0.1
930002	AB1-001 E	0.1354	Adder	0.16
933962	AD1-019 E	0.5928	Adder	0.7
934351	AD1-059	0.9151	50/50	0.9151
938781	AE1-104 C O1	8.0457	Adder	9.47
938782	AE1-104 E O1	20.5849	Adder	24.22
939121	AE1-142 C O1	2.6794	50/50	2.6794
939122	AE1-142 E O1	3.8557	50/50	3.8557
939981	AE1-238 C	39.6232	Adder	46.62
939982	AE1-238 E	104.0769	Adder	122.44
940161	AE2-000 C O1	58.6255	Adder	68.97
940162	AE2-000 E O1	150.0025	Adder	176.47
940361	AE2-020 C	8.9814	Adder	10.57
940362	AE2-020 E	42.0514	Adder	49.47
940371	AE2-021 C	8.9814	Adder	10.57
940372	AE2-021 E	42.0514	Adder	49.47
940381	AE2-022 C	5.2391	Adder	6.16
940382	AE2-022 E	24.5300	Adder	28.86
940401	AE2-024 C O1	57.6291	50/50	57.6291
940402	AE2-024 E O1	269.8134	50/50	269.8134
940411	AE2-025 C	29.0912	50/50	29.0912
940412	AE2-025 E	136.1893	50/50	136.1893
940691	AE2-056 C	0.1913	Adder	0.23
940692	AE2-056 E	0.1674	Adder	0.2
940701	AE2-057 C	0.0357	Adder	0.04
940702	AE2-057 E	0.0357	Adder	0.04
940921	AE2-081 C	0.2033	Adder	0.24
940922	AE2-081 E	0.2092	Adder	0.25
942101	AE2-222 C O1	6.7002	Adder	7.88
942102	AE2-222 E O1	16.8312	Adder	19.8
942381	AE2-251 C	28.4528	Adder	33.47
942382	AE2-251 E	72.8026	Adder	85.65
943521	AF1-023	1.3413	Adder	1.58
943561	AF1-027	0.2616	Adder	0.31
943732	AF1-041 E	0.1899	Adder	0.22
944332	AF1-101 E O1	147.0623	Adder	173.01
944611	AF1-126 C O1	8.8617	Adder	10.43
944612	AF1-126 E O1	35.4467	Adder	41.7
945571	AF1-222 C	24.6984	Adder	29.06
945572	AF1-222 E	65.1141	Adder	76.6
945951	AF1-260	0.3153	50/50	0.3153
957221	AF2-016 C	4.8211	Adder	10.7
957222	AF2-016 E	7.2316	Adder	16.05
957271	AF2-021 C	1.6415	Adder	3.64
957272	AF2-021 E	2.4623	Adder	5.47
957311	AF2-025 C	0.3289	Adder	0.73
957312	AF2-025 E	0.4934	Adder	1.1
957772	AF2-071 BAT	4.7080	Merchant Transmission	4.7080
957781	AF2-072 C	9.2813	50/50	9.2813
957782	AF2-072 E	9.2813	50/50	9.2813

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958761	AF2-167 C O2	0.2699	Adder	0.6
958762	AF2-167 E O2	0.3728	Adder	0.83
958781	AF2-169 C O2 (Withdrawn : 06/09/2020)	0.2057	Adder	0.46
958782	AF2-169 E O2 (Withdrawn : 06/09/2020)	24.4803	Adder	54.34
959151	AF2-206 C O2	2.0606	50/50	2.0606
959152	AF2-206 E O2	2.8440	50/50	2.8440
959631	AF2-254 C	0.4093	Adder	0.91
959632	AF2-254 E	0.5652	Adder	1.25
961221	AF2-413 O2	10.1790	Adder	22.59
999905	MARINGEN 2	0.3108	Adder	0.37
999906	PVILLEG 2	0.1340	Adder	0.16
NEWTON	NEWTON	0.3417	Confirmed LTF	0.3417
FARMERCITY	FARMERCITY	0.0177	Confirmed LTF	0.0177
G-007A	G-007A	16.1424	Confirmed LTF	16.1424
CALDERWOOD	CALDERWOOD	0.1521	Confirmed LTF	0.1521
NY	NY	0.5591	Confirmed LTF	0.5591
PRAIRIE	PRAIRIE	0.8162	Confirmed LTF	0.8162
O-066	O-066	5.7926	Confirmed LTF	5.7926
CHEOAH	CHEOAH	0.1532	Confirmed LTF	0.1532
EDWARDS	EDWARDS	0.1117	Confirmed LTF	0.1117
TILTON	TILTON	0.2010	Confirmed LTF	0.2010
MADISON	MADISON	0.0060	Confirmed LTF	0.0060
GIBSON	GIBSON	0.1736	Confirmed LTF	0.1736
BLUEG	BLUEG	0.5520	Confirmed LTF	0.5520
TRIMBLE	TRIMBLE	0.1770	Confirmed LTF	0.1770
CATAWBA	CATAWBA	0.1040	Confirmed LTF	0.1040

13.5.15 Index 15

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747398	206294	28LARRABEE	JCP&L	206309	28SMITHBRG	JCP&L	1	JC-P2-3-JCC-230-15G	breaker	817.0	168.36	169.62	DC	22.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.0635	Adder	1.25
206280	28LAKEHURS	0.7655	50/50	0.7655
206306	28LKWD G1	5.1218	50/50	5.1218
206308	28LKWD G2	5.1218	50/50	5.1218
206312	28LKWD G3	3.7106	50/50	3.7106
206325	28O C GEN (Deactivation : 17/09/2018)	57.4750	Adder	67.62
206366	28LKWD CT1	10.3235	50/50	10.3235
206367	28LKWD CT2	10.3235	50/50	10.3235
206370	LKWD CT3	71.2060	50/50	71.2060
206412	28R11	31.3375	Adder	36.87
207143	28BYD_X4-031	0.3462	Adder	0.41
207145	28FRN_Y2-051	0.1032	50/50	0.1032
207148	28MDF_W3-079	0.1447	50/50	0.1447
207400	28AA1-060 E	2.3542	Adder	2.77
207419	AB2-139 E	-0.0276	Adder	-0.03
227928	V4-067E	0.1293	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	9.9677	Adder	11.73
901912	W1-112E OP1	0.3069	Adder	0.36
901982	W1-119 E	1.0538	Adder	1.24
901992	W1-120E	1.0538	Adder	1.24
902032	W1-124E	1.7146	Adder	2.02
902082	W1-129E	0.5531	Adder	0.65
902322	W2-019 E	0.6524	Adder	0.77
902432	W2-030 E	0.4583	Adder	0.54
902952	W2-082 E OP1	1.9000	Adder	2.24
903982	W3-079 E	1.3871	50/50	1.3871
905252	W4-025 E	0.7850	Adder	0.92
905502	W4-060 E OP1	0.4647	Adder	0.55
907082	X1-037 E	1.2820	Adder	1.51
907272	X1-085 E	0.3061	Adder	0.36
912102	X4-015 E	0.5564	Adder	0.65
914092	Y2-051 E	0.9757	50/50	0.9757
917612	Z2-102 E	1.5531	Adder	1.83
919662	AA2-048 E	2.2068	50/50	2.2068
920732	AA2-184 E	1.8523	Adder	2.18
923292	AB1-138 C	0.1955	50/50	0.1955
923293	AB1-138 E	1.8886	50/50	1.8886
923463	AB1-163 E	1.2288	Adder	1.45
923791	AB2-014	0.4974	50/50	0.4974

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924701	AB2-122 C	0.0558	Adder	0.07
924702	AB2-122 E	0.0957	Adder	0.11
930001	AB1-001 C	0.0824	Adder	0.1
930002	AB1-001 E	0.1354	Adder	0.16
933962	AD1-019 E	0.5928	Adder	0.7
934351	AD1-059	0.9151	50/50	0.9151
938781	AE1-104 C O1	8.0457	Adder	9.47
938782	AE1-104 E O1	20.5849	Adder	24.22
939121	AE1-142 C O1	2.6794	50/50	2.6794
939122	AE1-142 E O1	3.8557	50/50	3.8557
939981	AE1-238 C	39.6232	Adder	46.62
939982	AE1-238 E	104.0769	Adder	122.44
940161	AE2-000 C O1	58.6255	Adder	68.97
940162	AE2-000 E O1	150.0025	Adder	176.47
940361	AE2-020 C	8.9814	Adder	10.57
940362	AE2-020 E	42.0514	Adder	49.47
940371	AE2-021 C	8.9814	Adder	10.57
940372	AE2-021 E	42.0514	Adder	49.47
940381	AE2-022 C	5.2391	Adder	6.16
940382	AE2-022 E	24.5300	Adder	28.86
940401	AE2-024 C O1	57.6291	50/50	57.6291
940402	AE2-024 E O1	269.8134	50/50	269.8134
940411	AE2-025 C	29.0912	50/50	29.0912
940412	AE2-025 E	136.1893	50/50	136.1893
940691	AE2-056 C	0.1913	Adder	0.23
940692	AE2-056 E	0.1674	Adder	0.2
940701	AE2-057 C	0.0357	Adder	0.04
940702	AE2-057 E	0.0357	Adder	0.04
940921	AE2-081 C	0.2033	Adder	0.24
940922	AE2-081 E	0.2092	Adder	0.25
942101	AE2-222 C O1	6.7002	Adder	7.88
942102	AE2-222 E O1	16.8312	Adder	19.8
942381	AE2-251 C	28.4528	Adder	33.47
942382	AE2-251 E	72.8026	Adder	85.65
943521	AF1-023	1.3413	Adder	1.58
943561	AF1-027	0.2616	Adder	0.31
943732	AF1-041 E	0.1899	Adder	0.22
944332	AF1-101 E O1	147.0623	Adder	173.01
944611	AF1-126 C O1	8.8617	Adder	10.43
944612	AF1-126 E O1	35.4467	Adder	41.7
945571	AF1-222 C	24.6984	Adder	29.06
945572	AF1-222 E	65.1141	Adder	76.6
945951	AF1-260	0.3153	50/50	0.3153
957221	AF2-016 C	4.8211	Adder	10.7
957222	AF2-016 E	7.2316	Adder	16.05
957271	AF2-021 C	1.6415	Adder	3.64
957272	AF2-021 E	2.4623	Adder	5.47
957311	AF2-025 C	0.3289	Adder	0.73
957312	AF2-025 E	0.4934	Adder	1.1
957772	AF2-071 BAT	4.7080	Merchant Transmission	4.7080
957781	AF2-072 C	9.2813	50/50	9.2813
957782	AF2-072 E	9.2813	50/50	9.2813

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958761	AF2-167 C O2	0.2699	Adder	0.6
958762	AF2-167 E O2	0.3728	Adder	0.83
958781	AF2-169 C O2 (Withdrawn : 06/09/2020)	0.2057	Adder	0.46
958782	AF2-169 E O2 (Withdrawn : 06/09/2020)	24.4803	Adder	54.34
959151	AF2-206 C O2	2.0606	50/50	2.0606
959152	AF2-206 E O2	2.8440	50/50	2.8440
959631	AF2-254 C	0.4093	Adder	0.91
959632	AF2-254 E	0.5652	Adder	1.25
961221	AF2-413 O2	10.1790	Adder	22.59
999905	MARINGEN 2	0.3108	Adder	0.37
999906	PVILLEG 2	0.1340	Adder	0.16
NEWTON	NEWTON	0.3417	Confirmed LTF	0.3417
FARMERCITY	FARMERCITY	0.0177	Confirmed LTF	0.0177
G-007A	G-007A	16.1424	Confirmed LTF	16.1424
CALDERWOOD	CALDERWOOD	0.1521	Confirmed LTF	0.1521
NY	NY	0.5591	Confirmed LTF	0.5591
PRAIRIE	PRAIRIE	0.8162	Confirmed LTF	0.8162
O-066	O-066	5.7926	Confirmed LTF	5.7926
CHEOAH	CHEOAH	0.1532	Confirmed LTF	0.1532
EDWARDS	EDWARDS	0.1117	Confirmed LTF	0.1117
TILTON	TILTON	0.2010	Confirmed LTF	0.2010
MADISON	MADISON	0.0060	Confirmed LTF	0.0060
GIBSON	GIBSON	0.1736	Confirmed LTF	0.1736
BLUEG	BLUEG	0.5520	Confirmed LTF	0.5520
TRIMBLE	TRIMBLE	0.1770	Confirmed LTF	0.1770
CATAWBA	CATAWBA	0.1040	Confirmed LTF	0.1040

13.5.16 Index 16

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
99748910	206294	28LARRABEE	JCP&L	206318	28VANHISVL	JCP&L	1	JC-P7-1-JCC-230-11A	tower	869.0	117.65	119.0	DC	26.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0424	50/50	0.0424
206271	28MCRC/REC	0.9145	50/50	0.9145
206306	28LKWD G1	2.8690	50/50	2.8690
206308	28LKWD G2	2.8690	50/50	2.8690
206312	28LKWD G3	2.0785	50/50	2.0785
206366	28LKWD CT1	5.7827	50/50	5.7827
206367	28LKWD CT2	5.7827	50/50	5.7827
206368	28MDLSEXCO	0.3733	50/50	0.3733
206370	LKWD CT3	39.8860	50/50	39.8860
206412	28R11	37.7403	Adder	44.4
206414	28X4-005E	1.5766	Adder	1.85
206416	28MLH_W1-032	0.0224	50/50	0.0224
207143	28BYD_X4-031	0.2666	50/50	0.2666
207144	28HOW_X1-037	0.1404	50/50	0.1404
207145	28FRN_Y2-051	0.0344	50/50	0.0344
207148	28MDF_W3-079	0.0555	50/50	0.0555
207169	28W4-060COL	0.0756	50/50	0.0756
207204	28HOL_W1-112	0.0350	50/50	0.0350
207205	28MAN_W1-024	0.0295	50/50	0.0295
207206	28TIN_W1-124	0.1583	50/50	0.1583
207401	AA1-060 BAT	4.8934	50/50	4.8934
207419	AB2-139 E	0.0342	Adder	0.04
207420	AC1-207 C	0.4235	Adder	0.5
218629	LAKENESP1_E	0.0211	Adder	0.02
227928	V4-067E	-0.1852	Adder	-0.22
228261	V4-054E	-0.4079	Adder	-0.48
901032	W1-024E OP1	0.2812	50/50	0.2812
901112	W1-032 E OP1	0.2194	50/50	0.2194
901422	W1-113 E	0.3600	Adder	0.42
901912	W1-112E OP1	0.3311	50/50	0.3311
902032	W1-124E	1.5054	50/50	1.5054
902322	W2-019 E	-1.0038	Adder	-1.18
902912	W2-078 E	0.4030	Adder	0.47
903982	W3-079 E	0.5325	50/50	0.5325
905502	W4-060 E OP1	0.7149	50/50	0.7149
907082	X1-037 E	1.3280	50/50	1.3280
914092	Y2-051 E	0.3255	50/50	0.3255
919662	AA2-048 E	0.8471	50/50	0.8471
920732	AA2-184 E	1.6518	50/50	1.6518
923791	AB2-014	0.2786	50/50	0.2786
924701	AB2-122 C	-0.0800	Adder	-0.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927132	AC1-207 E	0.7087	Adder	0.83
934351	AD1-059	0.5126	50/50	0.5126
934841	AD1-113 (Suspended)	5.9122	Adder	6.96
938423	AE1-061 BAT	0.4923	Merchant Transmission	0.4923
939121	AE1-142 C O1	-2.7297	Adder	-3.21
939303	AE1-161 BAT	3.9475	Merchant Transmission	3.9475
939981	AE1-238 C	35.1225	50/50	35.1225
939982	AE1-238 E	92.2551	50/50	92.2551
940401	AE2-024 C O1	30.9622	50/50	30.9622
940402	AE2-024 E O1	144.9615	50/50	144.9615
940411	AE2-025 C	15.6297	50/50	15.6297
940412	AE2-025 E	73.1699	50/50	73.1699
940691	AE2-056 C	0.2011	50/50	0.2011
940692	AE2-056 E	0.1760	50/50	0.1760
940701	AE2-057 C	0.0614	50/50	0.0614
940702	AE2-057 E	0.0614	50/50	0.0614
940921	AE2-081 C	0.2137	50/50	0.2137
940922	AE2-081 E	0.2200	50/50	0.2200
940931	AE2-082 C	0.2988	Adder	0.35
940932	AE2-082 E	0.3163	Adder	0.37
943521	AF1-023	1.1962	50/50	1.1962
944613	AF1-126 BAT	99.8850	50/50	99.8850
945201	AF1-185 1	0.3547	Adder	0.42
945211	AF1-185 2	0.0788	Adder	0.09
945571	AF1-222 C	21.8930	50/50	21.8930
945572	AF1-222 E	57.7180	50/50	57.7180
945733	AF1-238 BAT	10.5812	Merchant Transmission	10.5812
945743	AF1-239 BAT	2.4897	Merchant Transmission	2.4897
945951	AF1-260	0.1210	50/50	0.1210
957223	AF2-016 BAT	38.7300	50/50	38.7300
957253	AF2-019 BAT	2.1919	Merchant Transmission	2.1919
957263	AF2-020 BAT	0.8196	Merchant Transmission	0.8196
957273	AF2-021 BAT	11.5068	50/50	11.5068
957283	AF2-022 BAT	2.3503	Merchant Transmission	2.3503
957313	AF2-025 BAT	2.6296	50/50	2.6296
957323	AF2-026 BAT	1.3776	Merchant Transmission	1.3776
957781	AF2-072 C	4.9865	50/50	4.9865
957782	AF2-072 E	4.9865	50/50	4.9865
958761	AF2-167 C O2	0.4958	50/50	0.4958
958762	AF2-167 E O2	0.6847	50/50	0.6847
959151	AF2-206 C O2	0.7847	50/50	0.7847
959152	AF2-206 E O2	1.0830	50/50	1.0830
961221	AF2-413 O2	11.7367	Adder	26.05
999905	MARINGEN 2	-0.4475	Adder	-0.53
999906	PVILLEG 2	-0.1924	Adder	-0.23
NEWTON	NEWTON	0.0580	Confirmed LTF	0.0580
FARMERCITY	FARMERCITY	0.0032	Confirmed LTF	0.0032
G-007A	G-007A	22.2344	Confirmed LTF	22.2344
VFT	VFT	23.2845	Confirmed LTF	23.2845
CALDERWOOD	CALDERWOOD	0.0403	Confirmed LTF	0.0403
PRAIRIE	PRAIRIE	0.1498	Confirmed LTF	0.1498
CHEOAH	CHEOAH	0.0410	Confirmed LTF	0.0410

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
EDWARDS	EDWARDS	0.0175	Confirmed LTF	0.0175
TILTON	TILTON	0.0315	Confirmed LTF	0.0315
GIBSON	GIBSON	0.0289	Confirmed LTF	0.0289
BLUEG	BLUEG	0.0920	Confirmed LTF	0.0920
TRIMBLE	TRIMBLE	0.0295	Confirmed LTF	0.0295
CATAWBA	CATAWBA	0.0367	Confirmed LTF	0.0367

13.5.17 Index 17

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
99748952	206294	28LARRABEE	JCP&L	206286	28ATLANTIC	JCP&L	1	JC-P7-1-JCC-230-7A	tower	1147.0	111.15	112.34	DC	25.54

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206280	28LAKEHURS	0.7044	50/50	0.7044
206306	28LKWD G1	4.7672	50/50	4.7672
206308	28LKWD G2	4.7672	50/50	4.7672
206312	28LKWD G3	3.4537	50/50	3.4537
206325	28O C GEN (Deactivation : 17/09/2018)	53.7871	Adder	63.28
206366	28LKWD CT1	9.6088	50/50	9.6088
206367	28LKWD CT2	9.6088	50/50	9.6088
206370	LKWD CT3	66.2760	50/50	66.2760
206414	28X4-005E	-1.4909	Adder	-1.75
207400	28AA1-060 E	2.3247	Adder	2.73
219288	REEVES ST E	0.4290	Adder	0.5
219652	LUMB23SP1_E	0.0131	Adder	0.02
219656	LUMB23SP2_E	0.0131	Adder	0.02
219687	LUMSOLAR_N E	0.1321	Adder	0.16
227928	V4-067E	0.1312	Adder	0.15
228102	BLE#2 ST (Deactivation : 30/04/2019)	10.3486	Adder	12.17
901982	W1-119 E	0.9920	Adder	1.17
901992	W1-120E	0.9920	Adder	1.17
902082	W1-129E	0.5222	Adder	0.61
902322	W2-019 E	0.6162	Adder	0.72
902432	W2-030 E	0.4676	Adder	0.55
902952	W2-082 E OP1	1.7929	Adder	2.11
903982	W3-079 E	0.9425	Adder	1.11
905252	W4-025 E	0.7412	Adder	0.87
907272	X1-085 E	0.3189	Adder	0.38
912102	X4-015 E	0.5252	Adder	0.62
914092	Y2-051 E	0.7290	Adder	0.86
917612	Z2-102 E	1.4620	Adder	1.72
919662	AA2-048 E	1.4995	Adder	1.76
923292	AB1-138 C	0.1799	50/50	0.1799
923293	AB1-138 E	1.7378	50/50	1.7378
923463	AB1-163 E	1.0949	Adder	1.29
923791	AB2-014	0.4630	50/50	0.4630
924701	AB2-122 C	0.0567	Adder	0.07
924702	AB2-122 E	0.0972	Adder	0.11
930001	AB1-001 C	0.0821	Adder	0.1
930002	AB1-001 E	0.1350	Adder	0.16
933962	AD1-019 E	0.6032	Adder	0.71
934351	AD1-059	0.8517	50/50	0.8517
938781	AE1-104 C O1	8.3532	Adder	9.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938782	AE1-104 E O1	21.3716	Adder	25.14
939121	AE1-142 C O1	2.4962	50/50	2.4962
939122	AE1-142 E O1	3.5920	50/50	3.5920
940161	AE2-000 C O1	54.8638	Adder	64.55
940162	AE2-000 E O1	140.3777	Adder	165.15
940361	AE2-020 C	9.0646	Adder	10.66
940362	AE2-020 E	42.4411	Adder	49.93
940371	AE2-021 C	9.0646	Adder	10.66
940372	AE2-021 E	42.4411	Adder	49.93
940381	AE2-022 C	5.2877	Adder	6.22
940382	AE2-022 E	24.7573	Adder	29.13
940401	AE2-024 C O1	53.6040	50/50	53.6040
940402	AE2-024 E O1	250.9682	50/50	250.9682
940411	AE2-025 C	27.0593	50/50	27.0593
940412	AE2-025 E	126.6772	50/50	126.6772
942101	AE2-222 C O1	6.8134	Adder	8.02
942102	AE2-222 E O1	17.1158	Adder	20.14
942381	AE2-251 C	28.7165	Adder	33.78
942382	AE2-251 E	73.4773	Adder	86.44
943561	AF1-027	0.2583	Adder	0.3
943732	AF1-041 E	0.1929	Adder	0.23
944332	AF1-101 E O1	137.6261	Adder	161.91
944611	AF1-126 C O1	8.4197	Adder	9.91
944612	AF1-126 E O1	33.6787	Adder	39.62
945201	AF1-185 1	-0.3355	Adder	-0.39
945211	AF1-185 2	-0.0745	Adder	-0.09
945951	AF1-260	0.2142	Adder	0.25
957221	AF2-016 C	4.9222	Adder	10.93
957222	AF2-016 E	7.3832	Adder	16.39
957251	AF2-019 C	0.5147	Adder	1.14
957252	AF2-019 E	0.7720	Adder	1.71
957271	AF2-021 C	1.5552	Adder	3.45
957272	AF2-021 E	2.3328	Adder	5.18
957311	AF2-025 C	0.3349	Adder	0.74
957312	AF2-025 E	0.5024	Adder	1.12
957781	AF2-072 C	8.6330	50/50	8.6330
957782	AF2-072 E	8.6330	50/50	8.6330
958781	AF2-169 C O2 (Withdrawn : 06/09/2020)	0.2076	Adder	0.46
958782	AF2-169 E O2 (Withdrawn : 06/09/2020)	24.7072	Adder	54.84
959151	AF2-206 C O2	0.7614	Adder	1.69
959152	AF2-206 E O2	1.0509	Adder	2.33
959631	AF2-254 C	0.3860	Adder	0.86
959632	AF2-254 E	0.5330	Adder	1.18
961222	AF2-413 BAT	13.5375	Merchant Transmission	13.5375
999905	MARINGEN 2	0.3164	Adder	0.37
999906	PVILLEG 2	0.1361	Adder	0.16
NEWTON	NEWTON	0.0741	Confirmed LTF	0.0741
FARMERCITY	FARMERCITY	0.0038	Confirmed LTF	0.0038
CALDERWOOD	CALDERWOOD	0.0253	Confirmed LTF	0.0253
NY	NY	0.9628	Confirmed LTF	0.9628

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	0.1705	Confirmed LTF	0.1705
O-066	O-066	18.1574	Confirmed LTF	18.1574
CHEOAH	CHEOAH	0.0250	Confirmed LTF	0.0250
EDWARDS	EDWARDS	0.0248	Confirmed LTF	0.0248
TILTON	TILTON	0.0447	Confirmed LTF	0.0447
G-007	G-007	9.1198	Confirmed LTF	9.1198
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0377	Confirmed LTF	0.0377
BLUEG	BLUEG	0.1198	Confirmed LTF	0.1198
TRIMBLE	TRIMBLE	0.0384	Confirmed LTF	0.0384
CATAWBA	CATAWBA	0.0126	Confirmed LTF	0.0126

13.5.18 Index 18

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
99747565	206300	28OCEANVW	JCP&L	206286	28ATLANTIC	JCP&L	Y	JC-P2-3-JCC-230-47C	breaker	869.0	122.58	123.9	DC	21.65

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206325	28O C GEN (Deactivation : 17/09/2018)	14.1055	Adder	16.59
206370	LKWD CT3	14.6472	Adder	17.23
206414	28X4-005E	-1.2116	Adder	-1.43
901982	W1-119 E	0.2691	Adder	0.32
901992	W1-120E	0.2691	Adder	0.32
902082	W1-129E	0.1429	Adder	0.17
902322	W2-019 E	0.1688	Adder	0.2
902952	W2-082 E OP1	0.4897	Adder	0.58
903982	W3-079 E	0.3005	Adder	0.35
905252	W4-025 E	0.2028	Adder	0.24
912102	X4-015 E	0.1436	Adder	0.17
914092	Y2-051 E	0.2289	Adder	0.27
917612	Z2-102 E	0.3966	Adder	0.47
919662	AA2-048 E	0.4781	Adder	0.56
923293	AB1-138 E	0.3972	Adder	0.47
923463	AB1-163 E	0.3033	Adder	0.36
939121	AE1-142 C O1	0.5557	Adder	0.65
939122	AE1-142 E O1	0.7997	Adder	0.94
939981	AE1-238 C	149.9557	50/50	149.9557
939982	AE1-238 E	393.8838	50/50	393.8838
940161	AE2-000 C O1	14.3879	Adder	16.93
940162	AE2-000 E O1	36.8137	Adder	43.31
940401	AE2-024 C O1	11.8052	Adder	13.89
940402	AE2-024 E O1	55.2705	Adder	65.02
940411	AE2-025 C	5.9592	Adder	7.01
940412	AE2-025 E	27.8980	Adder	32.82
944332	AF1-101 E O1	36.0921	Adder	42.46
944611	AF1-126 C O1	2.2538	Adder	2.65
944612	AF1-126 E O1	9.0151	Adder	10.61
945201	AF1-185 1	-0.2726	Adder	-0.32
945211	AF1-185 2	-0.0606	Adder	-0.07
945571	AF1-222 C	93.4724	50/50	93.4724
945572	AF1-222 E	246.4273	50/50	246.4273
945951	AF1-260	0.0683	Adder	0.08
957271	AF2-021 C	0.4140	Adder	0.92
957272	AF2-021 E	0.6209	Adder	1.38
957781	AF2-072 C	1.0077	Adder	2.24
957782	AF2-072 E	1.0077	Adder	2.24
959151	AF2-206 C O2	0.2271	Adder	0.5
959152	AF2-206 E O2	0.3135	Adder	0.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959631	AF2-254 C	0.1052	Adder	0.23
959632	AF2-254 E	0.1453	Adder	0.32
961222	AF2-413 BAT	11.4732	Merchant Transmission	11.4732
WEC	WEC	0.0167	Confirmed LTF	0.0167
LGEE	LGEE	0.0314	Confirmed LTF	0.0314
CPL	CPL	0.0476	Confirmed LTF	0.0476
CBM-W2	CBM-W2	0.4668	Confirmed LTF	0.4668
NY	NY	0.3943	Confirmed LTF	0.3943
CBM-W1	CBM-W1	0.6505	Confirmed LTF	0.6505
TVA	TVA	0.0840	Confirmed LTF	0.0840
O-066	O-066	8.8502	Confirmed LTF	8.8502
CBM-S2	CBM-S2	0.3930	Confirmed LTF	0.3930
CBM-S1	CBM-S1	0.5027	Confirmed LTF	0.5027
G-007	G-007	7.4121	Confirmed LTF	7.4121
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
MEC	MEC	0.0874	Confirmed LTF	0.0874

13.5.19 Index 19

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
99747568	206300	28OCEANVW	JCP&L	206286	28ATLANTIC	JCP&L	X	JC-P2-3-JCC-230-47E	breaker	869.0	122.35	123.67	DC	21.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206325	28O C GEN (Deactivation : 17/09/2018)	14.0750	Adder	16.56
206370	LKWD CT3	14.6166	Adder	17.2
206414	28X4-005E	-1.2087	Adder	-1.42
901982	W1-119 E	0.2682	Adder	0.32
901992	W1-120E	0.2682	Adder	0.32
902082	W1-129E	0.1424	Adder	0.17
902322	W2-019 E	0.1682	Adder	0.2
902952	W2-082 E OP1	0.4880	Adder	0.57
903982	W3-079 E	0.2952	Adder	0.35
905252	W4-025 E	0.2021	Adder	0.24
912102	X4-015 E	0.1431	Adder	0.17
914092	Y2-051 E	0.2253	Adder	0.27
917612	Z2-102 E	0.3953	Adder	0.47
919662	AA2-048 E	0.4696	Adder	0.55
923293	AB1-138 E	0.3954	Adder	0.47
923463	AB1-163 E	0.3011	Adder	0.35
939121	AE1-142 C O1	0.5544	Adder	0.65
939122	AE1-142 E O1	0.7978	Adder	0.94
939981	AE1-238 C	149.8500	50/50	149.8500
939982	AE1-238 E	393.6060	50/50	393.6060
940161	AE2-000 C O1	14.3567	Adder	16.89
940162	AE2-000 E O1	36.7339	Adder	43.22
940401	AE2-024 C O1	11.7827	Adder	13.86
940402	AE2-024 E O1	55.1655	Adder	64.9
940411	AE2-025 C	5.9479	Adder	7.0
940412	AE2-025 E	27.8450	Adder	32.76
944332	AF1-101 E O1	36.0138	Adder	42.37
944611	AF1-126 C O1	2.2487	Adder	2.65
944612	AF1-126 E O1	8.9947	Adder	10.58
945201	AF1-185 1	-0.2720	Adder	-0.32
945211	AF1-185 2	-0.0604	Adder	-0.07
945571	AF1-222 C	93.4065	50/50	93.4065
945572	AF1-222 E	246.2535	50/50	246.2535
945951	AF1-260	0.0671	Adder	0.08
957271	AF2-021 C	0.4130	Adder	0.92
957272	AF2-021 E	0.6195	Adder	1.38
957781	AF2-072 C	1.0057	Adder	2.23
957782	AF2-072 E	1.0057	Adder	2.23
959151	AF2-206 C O2	0.2239	Adder	0.5
959152	AF2-206 E O2	0.3090	Adder	0.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959631	AF2-254 C	0.1049	Adder	0.23
959632	AF2-254 E	0.1448	Adder	0.32
961222	AF2-413 BAT	11.4440	Merchant Transmission	11.4440
WEC	WEC	0.0170	Confirmed LTF	0.0170
LGEE	LGEE	0.0314	Confirmed LTF	0.0314
CPL	CPL	0.0476	Confirmed LTF	0.0476
CBM-W2	CBM-W2	0.4668	Confirmed LTF	0.4668
NY	NY	0.3932	Confirmed LTF	0.3932
CBM-W1	CBM-W1	0.6505	Confirmed LTF	0.6505
TVA	TVA	0.0840	Confirmed LTF	0.0840
O-066	O-066	8.8301	Confirmed LTF	8.8301
CBM-S2	CBM-S2	0.3930	Confirmed LTF	0.3930
CBM-S1	CBM-S1	0.5027	Confirmed LTF	0.5027
G-007	G-007	7.3934	Confirmed LTF	7.3934
MADISON	MADISON	0.0040	Confirmed LTF	0.0040
MEC	MEC	0.0874	Confirmed LTF	0.0874

13.5.20 Index 20

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
99748917	206309	28SMITHBRG	JCP&L	206326	28E WINDSR	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	1394.0	123.36	131.08	DC	107.61

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	2.3721	Adder	2.79
206325	28O C GEN (Deactivation : 17/09/2018)	64.4379	Adder	75.81
206327	28S RIV G1	5.3776	50/50	5.3776
206328	28S RIV G2	5.3776	50/50	5.3776
206329	28S RIV G3	7.2729	50/50	7.2729
206358	28PARLN1&2	3.4465	50/50	3.4465
206359	28PARLN3&4	4.1949	50/50	4.1949
206362	28RDOAKCT1	12.9099	50/50	12.9099
206363	28RDOAKCT2	12.9105	50/50	12.9105
206364	28RDOAKCT3	12.9105	50/50	12.9105
206365	28RDOAKST1	18.1035	50/50	18.1035
206370	LKWD CT3	68.1156	Adder	80.14
206403	28W4-009	53.7411	50/50	53.7411
206412	28R11	189.3056	50/50	189.3056
206414	28X4-005E	7.3054	Adder	8.59
206416	28MLH_W1-032	0.0918	50/50	0.0918
207143	28BYD_X4-031	0.7202	Adder	0.85
207204	28HOL_W1-112	0.1130	50/50	0.1130
207205	28MAN_W1-024	0.1145	50/50	0.1145
207206	28TIN_W1-124	0.4746	50/50	0.4746
207400	28AA1-060 E	2.9586	Adder	3.48
207419	AB2-139 E	0.1151	Adder	0.14
207420	AC1-207 C	1.5463	Adder	1.82
901032	W1-024E OP1	1.0914	50/50	1.0914
901112	W1-032 E OP1	0.9004	50/50	0.9004
901422	W1-113 E	1.0170	Adder	1.2
901912	W1-112E OP1	1.0693	50/50	1.0693
901982	W1-119 E	1.2144	Adder	1.43
901992	W1-120E	1.2144	Adder	1.43
902032	W1-124E	4.5144	50/50	4.5144
902082	W1-129E	0.6405	Adder	0.75
902322	W2-019 E	0.7560	Adder	0.89
902912	W2-078 E	1.1379	Adder	1.34
902952	W2-082 E OP1	2.1981	Adder	2.59
903982	W3-079 E	1.5243	Adder	1.79
905252	W4-025 E	0.9090	Adder	1.07
905502	W4-060 E OP1	2.2546	Adder	2.65
907082	X1-037 E	3.8087	Adder	4.48
907272	X1-085 E	0.4226	Adder	0.5
912102	X4-015 E	0.6440	Adder	0.76
914092	Y2-051 E	1.0859	Adder	1.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
917612	Z2-102 E	1.7898	Adder	2.11
919662	AA2-048 E	2.4250	Adder	2.85
920732	AA2-184 E	4.9886	50/50	4.9886
923293	AB1-138 E	1.8809	Adder	2.21
923463	AB1-163 E	1.4823	Adder	1.74
927132	AC1-207 E	2.5877	Adder	3.04
934841	AD1-113 (Suspended)	27.3953	Adder	32.23
939121	AE1-142 C O1	2.5710	Adder	3.02
939122	AE1-142 E O1	3.6998	Adder	4.35
939981	AE1-238 C	97.0650	50/50	97.0650
939982	AE1-238 E	254.9574	50/50	254.9574
940161	AE2-000 C O1	65.7278	Adder	77.33
940162	AE2-000 E O1	168.1749	Adder	197.85
940401	AE2-024 C O1	55.1044	Adder	64.83
940402	AE2-024 E O1	257.9928	Adder	303.52
940411	AE2-025 C	27.8167	Adder	32.73
940412	AE2-025 E	130.2229	Adder	153.2
940691	AE2-056 C	0.5782	Adder	0.68
940692	AE2-056 E	0.5060	Adder	0.6
940701	AE2-057 C	0.1819	Adder	0.21
940702	AE2-057 E	0.1819	Adder	0.21
940921	AE2-081 C	0.6144	Adder	0.72
940922	AE2-081 E	0.6325	Adder	0.74
940931	AE2-082 C	1.0972	Adder	1.29
940932	AE2-082 E	1.1617	Adder	1.37
943521	AF1-023	3.6124	50/50	3.6124
943561	AF1-027	0.3287	Adder	0.39
944332	AF1-101 E O1	164.8785	Adder	193.97
944611	AF1-126 C O1	9.7933	Adder	11.52
944612	AF1-126 E O1	39.1731	Adder	46.09
945201	AF1-185 1	1.6437	Adder	1.93
945211	AF1-185 2	0.3653	Adder	0.43
945571	AF1-222 C	60.5039	50/50	60.5039
945572	AF1-222 E	159.5102	50/50	159.5102
945951	AF1-260	0.3464	Adder	0.41
957271	AF2-021 C	1.8205	Adder	4.04
957272	AF2-021 E	2.7307	Adder	6.06
957772	AF2-071 BAT	13.2145	Merchant Transmission	13.2145
957781	AF2-072 C	4.7036	Adder	10.44
957782	AF2-072 E	4.7036	Adder	10.44
958761	AF2-167 C O2	1.4555	50/50	1.4555
958762	AF2-167 E O2	2.0100	50/50	2.0100
959151	AF2-206 C O2	1.1860	Adder	2.63
959152	AF2-206 E O2	1.6369	Adder	3.63
959631	AF2-254 C	0.4730	Adder	1.05
959632	AF2-254 E	0.6532	Adder	1.45
961221	AF2-413 O2	107.6075	50/50	107.6075
NEWTON	NEWTON	0.7360	Confirmed LTF	0.7360
FARMERCITY	FARMERCITY	0.0383	Confirmed LTF	0.0383
G-007A	G-007A	103.0278	Confirmed LTF	103.0278
CALDERWOOD	CALDERWOOD	0.3370	Confirmed LTF	0.3370
NY	NY	0.7266	Confirmed LTF	0.7266

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
PRAIRIE	PRAIRIE	1.7668	Confirmed LTF	1.7668
O-066	O-066	11.7869	Confirmed LTF	11.7869
CHEOAH	CHEOAH	0.3393	Confirmed LTF	0.3393
EDWARDS	EDWARDS	0.2401	Confirmed LTF	0.2401
TILTON	TILTON	0.4322	Confirmed LTF	0.4322
MADISON	MADISON	0.0020	Confirmed LTF	0.0020
GIBSON	GIBSON	0.3740	Confirmed LTF	0.3740
BLUEG	BLUEG	1.1892	Confirmed LTF	1.1892
TRIMBLE	TRIMBLE	0.3812	Confirmed LTF	0.3812
CATAWBA	CATAWBA	0.2356	Confirmed LTF	0.2356

13.5.21 Index 21

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
99748841	206316	28WINDSOR	JCP&L	219752	CLRKSVLL_1	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	813.0	143.86	146.33	DC	49.21

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0694	50/50	0.0694
206271	28MCRC/REC	1.0625	Adder	1.25
206325	28O C GEN (Deactivation : 17/09/2018)	28.6601	Adder	33.72
206350	28RRCT1&2	2.7606	50/50	2.7606
206351	28RRCT3&4	2.5850	50/50	2.5850
206365	28RDOAKST1	8.3011	50/50	8.3011
206368	28MDLSEXCO	0.6934	50/50	0.6934
206370	LKWD CT3	30.0186	Adder	35.32
206403	28W4-009	24.7252	50/50	24.7252
206412	28R11	73.7117	Adder	86.72
206414	28X4-005E	3.9542	50/50	3.9542
206416	28MLH_W1-032	0.0405	50/50	0.0405
207143	28BYD_X4-031	0.3251	Adder	0.38
207152	28NPK_W1-113	0.1291	50/50	0.1291
207162	28APLW2-078	0.1445	50/50	0.1445
207169	28W4-060COL	0.1306	50/50	0.1306
207205	28MAN_W1-024	0.0566	50/50	0.0566
207400	28AA1-060 E	2.4091	Adder	2.83
207419	AB2-139 E	0.0979	50/50	0.0979
207420	AC1-207 C	1.1005	50/50	1.1005
219679	NRGCENTER E	-0.3194	Adder	-0.38
901032	W1-024E OP1	0.5401	50/50	0.5401
901112	W1-032 E OP1	0.3973	50/50	0.3973
901422	W1-113 E	1.2313	50/50	1.2313
901912	W1-112E OP1	0.4117	Adder	0.48
901982	W1-119 E	0.6145	Adder	0.72
901992	W1-120E	0.6145	Adder	0.72
902032	W1-124E	1.7175	Adder	2.02
902082	W1-129E	0.3351	Adder	0.39
902322	W2-019 E	0.3976	Adder	0.47
902912	W2-078 E	1.3793	50/50	1.3793
902952	W2-082 E OP1	1.1430	Adder	1.34
903982	W3-079 E	0.6787	Adder	0.8
905252	W4-025 E	0.4756	Adder	0.56
905502	W4-060 E OP1	1.2350	50/50	1.2350
907082	X1-037 E	1.7601	Adder	2.07
907272	X1-085 E	0.4738	Adder	0.56
912102	X4-015 E	0.3361	Adder	0.4
914092	Y2-051 E	0.4813	Adder	0.57
917612	Z2-102 E	0.9063	Adder	1.07
919662	AA2-048 E	1.0798	Adder	1.27

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919712	AA2-058 E	-0.1713	Adder	-0.2
919802	AA2-066 E	-0.3194	Adder	-0.38
920732	AA2-184 E	1.8998	Adder	2.24
923293	AB1-138 E	0.8424	Adder	0.99
923463	AB1-163 E	0.6827	Adder	0.8
927132	AC1-207 E	1.8416	50/50	1.8416
934841	AD1-113 (Suspended)	14.8283	50/50	14.8283
937523	AD2-213 BAT	1.8028	Merchant Transmission	1.8028
939121	AE1-142 C O1	1.1388	Adder	1.34
939122	AE1-142 E O1	1.6388	Adder	1.93
939981	AE1-238 C	36.7276	Adder	43.21
939982	AE1-238 E	96.4713	Adder	113.5
940161	AE2-000 C O1	29.2338	Adder	34.39
940162	AE2-000 E O1	74.7993	Adder	88.0
940401	AE2-024 C O1	24.2410	Adder	28.52
940402	AE2-024 E O1	113.4939	Adder	133.52
940411	AE2-025 C	12.2369	Adder	14.4
940412	AE2-025 E	57.2865	Adder	67.4
940691	AE2-056 C	0.2675	Adder	0.31
940692	AE2-056 E	0.2340	Adder	0.28
940701	AE2-057 C	0.1006	50/50	0.1006
940702	AE2-057 E	0.1006	50/50	0.1006
940921	AE2-081 C	0.2842	Adder	0.33
940922	AE2-081 E	0.2925	Adder	0.34
940931	AE2-082 C	0.7622	50/50	0.7622
940932	AE2-082 E	0.8071	50/50	0.8071
943521	AF1-023	1.3757	Adder	1.62
943561	AF1-027	0.2677	Adder	0.31
944332	AF1-101 E O1	73.3331	Adder	86.27
944432	AF1-108 BAT	1.8624	Merchant Transmission	1.8624
944442	AF1-109 BAT	5.4184	50/50	5.4184
944611	AF1-126 C O1	4.2207	Adder	4.97
944612	AF1-126 E O1	16.8827	Adder	19.86
945201	AF1-185 1	0.8897	50/50	0.8897
945211	AF1-185 2	0.1977	50/50	0.1977
945571	AF1-222 C	22.8936	Adder	26.93
945572	AF1-222 E	60.3558	Adder	71.01
945723	AF1-237 BAT	38.8180	Merchant Transmission	38.8180
945951	AF1-260	0.1543	Adder	0.18
957271	AF2-021 C	0.8268	Adder	1.84
957272	AF2-021 E	1.2401	Adder	2.75
957771	AF2-071	34.0690	50/50	34.0690
957781	AF2-072 C	2.0691	Adder	4.59
957782	AF2-072 E	2.0691	Adder	4.59
958761	AF2-167 C O2	0.2929	Adder	0.65
958762	AF2-167 E O2	0.4044	Adder	0.9
959151	AF2-206 C O2	0.5281	Adder	1.17
959152	AF2-206 E O2	0.7289	Adder	1.62
959631	AF2-254 C	0.2443	Adder	0.54
959632	AF2-254 E	0.3374	Adder	0.75
961221	AF2-413 O2	22.1702	Adder	49.21
NEWTON	NEWTON	0.2590	Confirmed LTF	0.2590

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
FARMERCITY	FARMERCITY	0.0134	Confirmed LTF	0.0134
G-007A	G-007A	47.4010	Confirmed LTF	47.4010
CALDERWOOD	CALDERWOOD	0.1193	Confirmed LTF	0.1193
NY	NY	0.2135	Confirmed LTF	0.2135
PRAIRIE	PRAIRIE	0.6199	Confirmed LTF	0.6199
O-066	O-066	7.3450	Confirmed LTF	7.3450
CHEOAH	CHEOAH	0.1201	Confirmed LTF	0.1201
EDWARDS	EDWARDS	0.0843	Confirmed LTF	0.0843
TILTON	TILTON	0.1518	Confirmed LTF	0.1518
GIBSON	GIBSON	0.1316	Confirmed LTF	0.1316
BLUEG	BLUEG	0.4184	Confirmed LTF	0.4184
TRIMBLE	TRIMBLE	0.1341	Confirmed LTF	0.1341
CATAWBA	CATAWBA	0.0837	Confirmed LTF	0.0837

13.5.22 Index 22

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
99748793	206318	28VANHISVL	JCP&L	206294	28LARRABEE	JCP&L	1	JC-P7-1-JCC-230-12	tower	869.0	168.23	169.74	DC	26.64

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206280	28LAKEHURS	0.4830	50/50	0.4830
206325	28O C GEN (Deactivation : 17/09/2018)	88.2925	50/50	88.2925
206360	28O CRK C1	2.3035	50/50	2.3035
206361	28O CRK C2	1.5234	50/50	1.5234
206414	28X4-005E	-1.6118	Adder	-1.9
207149	28UPF_X1-085	0.0619	50/50	0.0619
207150	28HAN_X4-015	0.1045	50/50	0.1045
207157	28PEM_W1-119	0.1924	50/50	0.1924
207158	28PEM_W1-120	0.1924	50/50	0.1924
207160	28EGP_W2-019	0.1252	50/50	0.1252
207164	28NHV_W2-082	0.3595	50/50	0.3595
207171	28DIX_Z2-102	0.2843	50/50	0.2843
207207	28JCB_W1-129	0.1042	50/50	0.1042
207208	28JCB_W4-025	0.1425	50/50	0.1425
207400	28AA1-060 E	4.3434	50/50	4.3434
207419	AB2-139 E	-0.0351	Adder	-0.04
207420	AC1-207 C	-0.4347	Adder	-0.51
218661	EHAMPSOLAR E	0.1854	Adder	0.22
219273	CLEANLIGHT E	0.1592	Adder	0.19
219287	REEVES ST C	0.1035	50/50	0.1035
219288	REEVES ST E	0.9792	50/50	0.9792
219292	REEVESSO E	0.0625	Adder	0.07
219582	COXSCOSP1_E	0.0074	Adder	0.01
219614	COXSCOSP2_E	0.0074	Adder	0.01
219628	LUMB23SP1_C	0.0032	50/50	0.0032
219652	LUMB23SP1_E	0.0299	50/50	0.0299
219653	LUMB23SP2_C	0.0032	50/50	0.0032
219656	LUMB23SP2_E	0.0299	50/50	0.0299
219686	LUMSOLAR_N C	0.0322	50/50	0.0322
219687	LUMSOLAR_N E	0.3015	50/50	0.3015
219689	LUMSOLAR_S E	0.1836	Adder	0.22
227842	MARINGEN	0.0903	50/50	0.0903
227927	V4-067C	0.0238	50/50	0.0238
227928	V4-067E	0.2280	50/50	0.2280
228014	PVILLEG	0.0312	50/50	0.0312
228102	BLE#2 ST (Deactivation : 30/04/2019)	15.4699	Adder	18.2
228712	V2-041E	0.1928	Adder	0.23
228729	W2-030 C	0.0855	50/50	0.0855
228731	V3-036	0.1311	50/50	0.1311
901982	W1-119 E	1.8235	50/50	1.8235

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
901992	W1-120E	1.8235	50/50	1.8235
902082	W1-129E	0.9851	50/50	0.9851
902092	W1-130E	0.4495	Adder	0.53
902322	W2-019 E	1.1672	50/50	1.1672
902432	W2-030 E	0.8149	50/50	0.8149
902952	W2-082 E OP1	3.3663	50/50	3.3663
905252	W4-025 E	1.3983	50/50	1.3983
907272	X1-085 E	0.5854	50/50	0.5854
912102	X4-015 E	0.9888	50/50	0.9888
917612	Z2-102 E	2.6889	50/50	2.6889
919663	AA2-048 BAT	1.0046	50/50	1.0046
923292	AB1-138 C	0.1233	50/50	0.1233
923293	AB1-138 E	1.1915	50/50	1.1915
923463	AB1-163 E	0.4827	Adder	0.57
923532	AB1-169AC	43.5804	Adder	51.27
924531	AB2-102 C	17.3139	Adder	20.37
924532	AB2-102 E	0.3848	Adder	0.45
924701	AB2-122 C	0.0985	50/50	0.0985
924702	AB2-122 E	0.1689	50/50	0.1689
930001	AB1-001 C	0.1410	50/50	0.1410
930002	AB1-001 E	0.2318	50/50	0.2318
932361	AC2-050 C O1	0.3452	Adder	0.41
932362	AC2-050 E O1	0.5632	Adder	0.66
933962	AD1-019 E	1.0502	50/50	1.0502
938421	AE1-061 C	0.2168	Adder	0.26
938422	AE1-061 E	0.2168	Adder	0.26
938781	AE1-104 C O1	12.4870	Adder	14.69
938782	AE1-104 E O1	31.9479	Adder	37.59
939121	AE1-142 C O1	3.2823	50/50	3.2823
939122	AE1-142 E O1	4.7233	50/50	4.7233
939501	AE1-179 C O1	2.5151	Adder	2.96
939502	AE1-179 E O1	1.7749	Adder	2.09
940001	AE1-240 C O1	2.0842	Adder	2.45
940002	AE1-240 E O1	1.4877	Adder	1.75
940161	AE2-000 C O1	90.0599	50/50	90.0599
940162	AE2-000 E O1	230.4323	50/50	230.4323
940361	AE2-020 C	15.6946	50/50	15.6946
940362	AE2-020 E	73.4832	50/50	73.4832
940371	AE2-021 C	15.6946	50/50	15.6946
940372	AE2-021 E	73.4832	50/50	73.4832
940381	AE2-022 C	9.1552	50/50	9.1552
940382	AE2-022 E	42.8652	50/50	42.8652
940691	AE2-056 C	-0.1907	Adder	-0.22
940701	AE2-057 C	-0.0568	Adder	-0.07
940921	AE2-081 C	-0.2026	Adder	-0.24
942101	AE2-222 C O1	11.8580	50/50	11.8580
942102	AE2-222 E O1	29.7880	50/50	29.7880
942381	AE2-251 C	49.7201	50/50	49.7201
942382	AE2-251 E	127.2199	50/50	127.2199
943561	AF1-027	0.4826	50/50	0.4826
943732	AF1-041 E	0.3355	50/50	0.3355
944332	AF1-101 E O1	225.9156	50/50	225.9156

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
944611	AF1-126 C O1	20.0270	50/50	20.0270
944612	AF1-126 E O1	80.1080	50/50	80.1080
945201	AF1-185 1	-0.3626	Adder	-0.43
945211	AF1-185 2	-0.0806	Adder	-0.09
945731	AF1-238 C	3.7281	Adder	4.39
945732	AF1-238 E	5.5922	Adder	6.58
945741	AF1-239 C	0.8772	Adder	1.03
945742	AF1-239 E	1.3158	Adder	1.55
957221	AF2-016 C	7.2997	Adder	16.2
957222	AF2-016 E	24.3054	50/50	24.3054
957251	AF2-019 C	0.7769	Adder	1.72
957252	AF2-019 E	1.1653	Adder	2.59
957271	AF2-021 C	4.8613	50/50	4.8613
957272	AF2-021 E	7.2919	50/50	7.2919
957281	AF2-022 C	0.8305	Adder	1.84
957282	AF2-022 E	1.2458	Adder	2.77
957311	AF2-025 C	1.1005	50/50	1.1005
957312	AF2-025 E	1.6507	50/50	1.6507
957321	AF2-026 C	0.4863	Adder	1.08
957322	AF2-026 E	0.7294	Adder	1.62
957783	AF2-072 BAT	10.1220	50/50	10.1220
958781	AF2-169 C O2 (Withdrawn : 06/09/2020)	0.6783	50/50	0.6783
958782	AF2-169 E O2 (Withdrawn : 06/09/2020)	80.7141	50/50	80.7141
958831	AF2-174 C	0.2224	Adder	0.49
958832	AF2-174 E	0.3072	Adder	0.68
959631	AF2-254 C	1.3600	50/50	1.3600
959632	AF2-254 E	1.8782	50/50	1.8782
961222	AF2-413 BAT	14.1179	Merchant Transmission	14.1179
999905	MARINGEN 2	0.5509	50/50	0.5509
999906	PVILLEG 2	0.2369	50/50	0.2369
WEC	WEC	0.0161	Confirmed LTF	0.0161
LGEE	LGEE	0.0314	Confirmed LTF	0.0314
CPL	CPL	0.0840	Confirmed LTF	0.0840
CBM-W2	CBM-W2	0.5324	Confirmed LTF	0.5324
NY	NY	1.3720	Confirmed LTF	1.3720
CBM-W1	CBM-W1	0.5755	Confirmed LTF	0.5755
TVA	TVA	0.1050	Confirmed LTF	0.1050
O-066	O-066	25.2269	Confirmed LTF	25.2269
CBM-S2	CBM-S2	0.6416	Confirmed LTF	0.6416
CBM-S1	CBM-S1	0.6134	Confirmed LTF	0.6134
G-007	G-007	9.8602	Confirmed LTF	9.8602
MADISON	MADISON	0.0141	Confirmed LTF	0.0141
MEC	MEC	0.0890	Confirmed LTF	0.0890

13.5.23 Index 23

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
99748851	206326	28E WINDSR	JCP&L	206316	28WINDSOR	JCP&L	1	PS_P7-1_1LINE+2LINE	tower	869.0	148.45	152.35	DC	41.02

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.0954	50/50	1.0954
206325	28O C GEN (Deactivation : 17/09/2018)	25.9754	Adder	30.56
206327	28S RIV G1	2.0450	50/50	2.0450
206328	28S RIV G2	2.0450	50/50	2.0450
206329	28S RIV G3	2.7657	50/50	2.7657
206358	28PARLN1&2	1.3138	50/50	1.3138
206359	28PARLN3&4	1.5991	50/50	1.5991
206362	28RDOAKCT1	4.9022	50/50	4.9022
206363	28RDOAKCT2	4.9037	50/50	4.9037
206364	28RDOAKCT3	4.9037	50/50	4.9037
206365	28RDOAKST1	6.8743	50/50	6.8743
206370	LKWD CT3	27.3275	Adder	32.15
206412	28R11	71.9884	50/50	71.9884
206414	28X4-005E	2.7603	Adder	3.25
206416	28MLH_W1-032	0.0371	50/50	0.0371
207143	28BYD_X4-031	0.3287	50/50	0.3287
207145	28FRN_Y2-051	0.0537	50/50	0.0537
207204	28HOL_W1-112	0.0437	50/50	0.0437
207206	28TIN_W1-124	0.1865	50/50	0.1865
219679	NRGCENTER E	-0.3115	Adder	-0.37
901032	W1-024E OP1	0.3137	Adder	0.37
901112	W1-032 E OP1	0.3634	50/50	0.3634
901912	W1-112E OP1	0.4135	50/50	0.4135
902032	W1-124E	1.7737	50/50	1.7737
903982	W3-079 E	0.6001	Adder	0.71
905502	W4-060 E OP1	0.8375	Adder	0.99
907082	X1-037 E	1.4307	Adder	1.68
914092	Y2-051 E	0.5075	50/50	0.5075
919662	AA2-048 E	0.9547	Adder	1.12
919712	AA2-058 E	-0.1675	Adder	-0.2
919802	AA2-066 E	-0.3115	Adder	-0.37
920732	AA2-184 E	1.9574	50/50	1.9574
923293	AB1-138 E	0.7323	Adder	0.86
923463	AB1-163 E	0.5446	Adder	0.64
934841	AD1-113 (Suspended)	10.3511	Adder	12.18
937523	AD2-213 BAT	1.7470	Merchant Transmission	1.7470
939121	AE1-142 C O1	1.0266	Adder	1.21
939122	AE1-142 E O1	1.4773	Adder	1.74
939981	AE1-238 C	38.4300	50/50	38.4300
939982	AE1-238 E	100.9428	50/50	100.9428
940161	AE2-000 C O1	26.4954	Adder	31.17

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940162	AE2-000 E O1	67.7926	Adder	79.76
940401	AE2-024 C O1	26.0212	50/50	26.0212
940402	AE2-024 E O1	121.8285	50/50	121.8285
940411	AE2-025 C	13.1355	50/50	13.1355
940412	AE2-025 E	61.4934	50/50	61.4934
940691	AE2-056 C	0.2169	Adder	0.26
940692	AE2-056 E	0.1898	Adder	0.22
940701	AE2-057 C	0.0666	Adder	0.08
940702	AE2-057 E	0.0666	Adder	0.08
940921	AE2-081 C	0.2305	Adder	0.27
940922	AE2-081 E	0.2373	Adder	0.28
940931	AE2-082 C	0.2437	Adder	0.29
940932	AE2-082 E	0.2580	Adder	0.3
943521	AF1-023	1.4174	50/50	1.4174
944332	AF1-101 E O1	66.4638	Adder	78.19
944432	AF1-108 BAT	1.8054	Merchant Transmission	1.8054
944442	AF1-109 BAT	5.2970	50/50	5.2970
944611	AF1-126 C O1	3.4646	Adder	4.08
944612	AF1-126 E O1	13.8584	Adder	16.3
945201	AF1-185 1	0.6211	Adder	0.73
945211	AF1-185 2	0.1380	Adder	0.16
945571	AF1-222 C	23.9547	50/50	23.9547
945572	AF1-222 E	63.1533	50/50	63.1533
945723	AF1-237 BAT	37.9640	50/50	37.9640
945951	AF1-260	0.1364	Adder	0.16
957271	AF2-021 C	0.7496	Adder	1.66
957272	AF2-021 E	1.1243	Adder	2.5
957772	AF2-071 BAT	64.5140	50/50	64.5140
957781	AF2-072 C	4.1908	50/50	4.1908
957782	AF2-072 E	4.1908	50/50	4.1908
958761	AF2-167 C O2	0.5739	50/50	0.5739
958762	AF2-167 E O2	0.7925	50/50	0.7925
959151	AF2-206 C O2	0.4669	Adder	1.04
959152	AF2-206 E O2	0.6444	Adder	1.43
961221	AF2-413 O2	41.0200	50/50	41.0200
NEWTON	NEWTON	0.2031	Confirmed LTF	0.2031
FARMERCITY	FARMERCITY	0.0106	Confirmed LTF	0.0106
G-007A	G-007A	38.9282	Confirmed LTF	38.9282
CALDERWOOD	CALDERWOOD	0.0939	Confirmed LTF	0.0939
NY	NY	0.1493	Confirmed LTF	0.1493
PRAIRIE	PRAIRIE	0.4882	Confirmed LTF	0.4882
O-066	O-066	6.3370	Confirmed LTF	6.3370
CHEOAH	CHEOAH	0.0946	Confirmed LTF	0.0946
EDWARDS	EDWARDS	0.0661	Confirmed LTF	0.0661
TILTON	TILTON	0.1191	Confirmed LTF	0.1191
GIBSON	GIBSON	0.1032	Confirmed LTF	0.1032
BLUEG	BLUEG	0.3281	Confirmed LTF	0.3281
TRIMBLE	TRIMBLE	0.1052	Confirmed LTF	0.1052
CATAWBA	CATAWBA	0.0661	Confirmed LTF	0.0661

13.5.24 Index 24

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
99747487	206410	28R11RINGB	JCP&L	206315	28RED OAKB	JCP&L	1	JC-P2-3-JCC-230-26D	breaker	869.0	143.75	159.66	DC	147.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0645	50/50	0.0645
206271	28MCRC/REC	1.9041	50/50	1.9041
206325	28O C GEN (Deactivation : 17/09/2018)	30.0588	Adder	35.36
206327	28S RIV G1	7.5286	50/50	7.5286
206328	28S RIV G2	7.5286	50/50	7.5286
206329	28S RIV G3	10.1820	50/50	10.1820
206358	28PARLN1&2	4.7313	50/50	4.7313
206359	28PARLN3&4	5.7586	50/50	5.7586
206367	28LKWD CT2	5.2860	50/50	5.2860
206370	LKWD CT3	30.9910	Adder	36.46
206412	28R11	265.0252	50/50	265.0252
207143	28BYD_X4-031	0.4989	50/50	0.4989
207144	28HOW_X1-037	0.2286	50/50	0.2286
207145	28FRN_Y2-051	0.0649	50/50	0.0649
207148	28MDF_W3-079	0.0924	50/50	0.0924
207204	28HOL_W1-112	0.0805	50/50	0.0805
207206	28TIN_W1-124	0.3263	50/50	0.3263
207400	28AA1-060 E	1.6558	Adder	1.95
901032	W1-024E OP1	0.2024	Adder	0.24
901112	W1-032 E OP1	0.1711	Adder	0.2
901912	W1-112E OP1	0.7617	50/50	0.7617
901982	W1-119 E	0.6048	Adder	0.71
901992	W1-120E	0.6048	Adder	0.71
902032	W1-124E	3.1036	50/50	3.1036
902082	W1-129E	0.3251	Adder	0.38
902322	W2-019 E	0.3849	Adder	0.45
902952	W2-082 E OP1	1.1119	Adder	1.31
903982	W3-079 E	0.8864	50/50	0.8864
905252	W4-025 E	0.4614	Adder	0.54
907082	X1-037 E	2.1621	50/50	2.1621
907272	X1-085 E	0.2591	Adder	0.3
912102	X4-015 E	0.3264	Adder	0.38
914092	Y2-051 E	0.6136	50/50	0.6136
917612	Z2-102 E	0.8917	Adder	1.05
919662	AA2-048 E	1.4102	50/50	1.4102
920732	AA2-184 E	3.4373	50/50	3.4373
923293	AB1-138 E	0.8807	Adder	1.04
923463	AB1-163 E	0.7151	Adder	0.84
939121	AE1-142 C O1	1.1858	Adder	1.4
939122	AE1-142 E O1	1.7064	Adder	2.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939981	AE1-238 C	67.1850	50/50	67.1850
939982	AE1-238 E	176.4726	50/50	176.4726
940161	AE2-000 C O1	30.6605	Adder	36.07
940162	AE2-000 E O1	78.4497	Adder	92.29
940401	AE2-024 C O1	29.3167	50/50	29.3167
940402	AE2-024 E O1	137.2578	50/50	137.2578
940411	AE2-025 C	14.7991	50/50	14.7991
940412	AE2-025 E	69.2814	50/50	69.2814
940691	AE2-056 C	0.3254	50/50	0.3254
940692	AE2-056 E	0.2847	50/50	0.2847
940701	AE2-057 C	0.0934	50/50	0.0934
940702	AE2-057 E	0.0934	50/50	0.0934
940921	AE2-081 C	0.3457	50/50	0.3457
940922	AE2-081 E	0.3559	50/50	0.3559
943521	AF1-023	2.4891	50/50	2.4891
943561	AF1-027	0.1840	Adder	0.22
944332	AF1-101 E O1	76.9120	Adder	90.48
944611	AF1-126 C O1	4.9032	Adder	5.77
944612	AF1-126 E O1	19.6129	Adder	23.07
945201	AF1-185 1	-1.0874	Adder	-1.28
945211	AF1-185 2	-0.2416	Adder	-0.28
945571	AF1-222 C	41.8786	50/50	41.8786
945572	AF1-222 E	110.4073	50/50	110.4073
945951	AF1-260	0.2015	50/50	0.2015
957271	AF2-021 C	0.8923	Adder	1.98
957272	AF2-021 E	1.3384	Adder	2.97
957781	AF2-072 C	4.7215	50/50	4.7215
957782	AF2-072 E	4.7215	50/50	4.7215
958761	AF2-167 C O2	1.0945	50/50	1.0945
958762	AF2-167 E O2	1.5114	50/50	1.5114
959151	AF2-206 C O2	1.2867	50/50	1.2867
959152	AF2-206 E O2	1.7759	50/50	1.7759
959631	AF2-254 C	0.2383	Adder	0.53
959632	AF2-254 E	0.3291	Adder	0.73
961221	AF2-413 O2	147.7200	50/50	147.7200
NEWTON	NEWTON	0.0591	Confirmed LTF	0.0591
FARMERCITY	FARMERCITY	0.0030	Confirmed LTF	0.0030
CALDERWOOD	CALDERWOOD	0.0169	Confirmed LTF	0.0169
NY	NY	1.4306	Confirmed LTF	1.4306
PRAIRIE	PRAIRIE	0.1343	Confirmed LTF	0.1343
O-066	O-066	32.3635	Confirmed LTF	32.3635
CHEOAH	CHEOAH	0.0165	Confirmed LTF	0.0165
EDWARDS	EDWARDS	0.0203	Confirmed LTF	0.0203
TILTON	TILTON	0.0365	Confirmed LTF	0.0365
G-007	G-007	29.5662	Confirmed LTF	29.5662
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0306	Confirmed LTF	0.0306
BLUEG	BLUEG	0.0972	Confirmed LTF	0.0972
TRIMBLE	TRIMBLE	0.0312	Confirmed LTF	0.0312
CATAWBA	CATAWBA	0.0056	Confirmed LTF	0.0056

13.5.25 Index 25

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
99747458	206411	28R11RINGA	JCP&L	206314	28RED OAKA	JCP&L	1	JC-P2-3-JCC-230-26B	breaker	869.0	147.57	163.24	DC	145.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0645	50/50	0.0645
206271	28MCRC/REC	1.9079	50/50	1.9079
206325	28O C GEN (Deactivation : 17/09/2018)	30.1486	Adder	35.47
206327	28S RIV G1	7.6831	50/50	7.6831
206328	28S RIV G2	7.6831	50/50	7.6831
206329	28S RIV G3	10.3909	50/50	10.3909
206358	28PARLN1&2	4.6644	50/50	4.6644
206359	28PARLN3&4	5.6773	50/50	5.6773
206367	28LKWD CT2	5.3022	50/50	5.3022
206370	LKWD CT3	31.0862	Adder	36.57
206412	28R11	270.4636	50/50	270.4636
207143	28BYD_X4-031	0.4998	50/50	0.4998
207144	28HOW_X1-037	0.2288	50/50	0.2288
207145	28FRN_Y2-051	0.0650	50/50	0.0650
207148	28MDF_W3-079	0.0927	50/50	0.0927
207204	28HOL_W1-112	0.0803	50/50	0.0803
207206	28TIN_W1-124	0.3270	50/50	0.3270
207400	28AA1-060 E	1.6597	Adder	1.95
901032	W1-024E OP1	0.2026	Adder	0.24
901112	W1-032 E OP1	0.1715	Adder	0.2
901912	W1-112E OP1	0.7592	50/50	0.7592
901982	W1-119 E	0.6064	Adder	0.71
901992	W1-120E	0.6064	Adder	0.71
902032	W1-124E	3.1101	50/50	3.1101
902082	W1-129E	0.3259	Adder	0.38
902322	W2-019 E	0.3859	Adder	0.45
902952	W2-082 E OP1	1.1148	Adder	1.31
903982	W3-079 E	0.8888	50/50	0.8888
905252	W4-025 E	0.4626	Adder	0.54
907082	X1-037 E	2.1639	50/50	2.1639
907272	X1-085 E	0.2597	Adder	0.31
912102	X4-015 E	0.3273	Adder	0.39
914092	Y2-051 E	0.6153	50/50	0.6153
917612	Z2-102 E	0.8941	Adder	1.05
919662	AA2-048 E	1.4141	50/50	1.4141
920732	AA2-184 E	3.4439	50/50	3.4439
923293	AB1-138 E	0.8833	Adder	1.04
923463	AB1-163 E	0.7171	Adder	0.84
939121	AE1-142 C O1	1.1894	Adder	1.4
939122	AE1-142 E O1	1.7115	Adder	2.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939981	AE1-238 C	67.4190	50/50	67.4190
939982	AE1-238 E	177.0872	50/50	177.0872
940161	AE2-000 C O1	30.7521	Adder	36.18
940162	AE2-000 E O1	78.6841	Adder	92.57
940401	AE2-024 C O1	29.4083	50/50	29.4083
940402	AE2-024 E O1	137.6866	50/50	137.6866
940411	AE2-025 C	14.8453	50/50	14.8453
940412	AE2-025 E	69.4978	50/50	69.4978
940691	AE2-056 C	0.3256	50/50	0.3256
940692	AE2-056 E	0.2849	50/50	0.2849
940701	AE2-057 C	0.0934	50/50	0.0934
940702	AE2-057 E	0.0934	50/50	0.0934
940921	AE2-081 C	0.3460	50/50	0.3460
940922	AE2-081 E	0.3562	50/50	0.3562
943521	AF1-023	2.4939	50/50	2.4939
943561	AF1-027	0.1844	Adder	0.22
944332	AF1-101 E O1	77.1418	Adder	90.76
944611	AF1-126 C O1	4.9160	Adder	5.78
944612	AF1-126 E O1	19.6639	Adder	23.13
945201	AF1-185 1	-1.0921	Adder	-1.28
945211	AF1-185 2	-0.2427	Adder	-0.29
945571	AF1-222 C	42.0245	50/50	42.0245
945572	AF1-222 E	110.7919	50/50	110.7919
945951	AF1-260	0.2020	50/50	0.2020
957271	AF2-021 C	0.8947	Adder	1.99
957272	AF2-021 E	1.3421	Adder	2.98
957781	AF2-072 C	4.7362	50/50	4.7362
957782	AF2-072 E	4.7362	50/50	4.7362
958761	AF2-167 C O2	1.0965	50/50	1.0965
958762	AF2-167 E O2	1.5143	50/50	1.5143
959151	AF2-206 C O2	1.2902	50/50	1.2902
959152	AF2-206 E O2	1.7808	50/50	1.7808
959631	AF2-254 C	0.2390	Adder	0.53
959632	AF2-254 E	0.3300	Adder	0.73
961221	AF2-413 O2	145.6325	50/50	145.6325
NEWTON	NEWTON	0.0752	Confirmed LTF	0.0752
FARMERCITY	FARMERCITY	0.0038	Confirmed LTF	0.0038
CALDERWOOD	CALDERWOOD	0.0244	Confirmed LTF	0.0244
NY	NY	1.4439	Confirmed LTF	1.4439
PRAIRIE	PRAIRIE	0.1731	Confirmed LTF	0.1731
O-066	O-066	32.5853	Confirmed LTF	32.5853
CHEOAH	CHEOAH	0.0240	Confirmed LTF	0.0240
EDWARDS	EDWARDS	0.0256	Confirmed LTF	0.0256
TILTON	TILTON	0.0460	Confirmed LTF	0.0460
G-007	G-007	29.6930	Confirmed LTF	29.6930
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.0388	Confirmed LTF	0.0388
BLUEG	BLUEG	0.1233	Confirmed LTF	0.1233
TRIMBLE	TRIMBLE	0.0395	Confirmed LTF	0.0395
CATAWBA	CATAWBA	0.0109	Confirmed LTF	0.0109

13.5.26 Index 26

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
99747613	218313	GREENBK_W	PSE&G	206239	28GILLET W	JCP&L	1	JC-P2-3-JCC-230-026HT	breaker	802.0	102.71	111.51	DC	70.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	0.9256	Adder	1.09
206325	28O C GEN (Deactivation : 17/09/2018)	18.2405	Adder	21.46
206327	28S RIV G1	3.6219	50/50	3.6219
206328	28S RIV G2	3.6219	50/50	3.6219
206329	28S RIV G3	4.8984	50/50	4.8984
206358	28PARLN1&2	2.2547	50/50	2.2547
206359	28PARLN3&4	2.7442	50/50	2.7442
206362	28RDOAKCT1	8.8268	50/50	8.8268
206363	28RDOAKCT2	8.8082	50/50	8.8082
206364	28RDOAKCT3	8.8082	50/50	8.8082
206365	28RDOAKST1	12.3778	50/50	12.3778
206370	LKWD CT3	18.7221	Adder	22.03
206403	28W4-009	38.7229	50/50	38.7229
206412	28R11	127.4988	50/50	127.4988
206414	28X4-005E	6.1928	50/50	6.1928
206638	28PEAPACK	-0.2668	Adder	-0.31
207143	28BYD_X4-031	0.2558	Adder	0.3
207400	28AA1-060 E	1.2303	Adder	1.45
207419	AB2-139 E	0.0417	Adder	0.05
207420	AC1-207 C	0.5276	Adder	0.62
218628	LAKENESP1_C	0.0146	50/50	0.0146
218629	LAKENESP1_E	0.1380	50/50	0.1380
901032	W1-024E OP1	0.2370	Adder	0.28
901112	W1-032 E OP1	0.1458	Adder	0.17
901422	W1-113 E	0.4786	Adder	0.56
901912	W1-112E OP1	0.4204	Adder	0.49
901982	W1-119 E	0.3869	Adder	0.46
901992	W1-120E	0.3869	Adder	0.46
902032	W1-124E	1.5004	Adder	1.77
902082	W1-129E	0.2107	Adder	0.25
902322	W2-019 E	0.2499	Adder	0.29
902912	W2-078 E	0.5360	Adder	0.63
902952	W2-082 E OP1	0.7189	Adder	0.85
903982	W3-079 E	0.4528	Adder	0.53
905252	W4-025 E	0.2991	Adder	0.35
905502	W4-060 E OP1	1.1787	Adder	1.39
907082	X1-037 E	1.2592	Adder	1.48
907272	X1-085 E	0.2140	Adder	0.25
912102	X4-015 E	0.2113	Adder	0.25
914092	Y2-051 E	0.3146	Adder	0.37

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
917612	Z2-102 E	0.5707	Adder	0.67
919662	AA2-048 E	0.7204	Adder	0.85
920732	AA2-184 E	1.6697	Adder	1.96
923293	AB1-138 E	0.5360	Adder	0.63
923463	AB1-163 E	0.4391	Adder	0.52
927132	AC1-207 E	0.8829	Adder	1.04
933332	AC2-145 E (Suspended)	-0.0122	Adder	-0.01
933333	AC2-145 BAT (Suspended)	0.0143	Merchant Transmission	0.0143
934841	AD1-113 (Suspended)	23.2230	50/50	23.2230
937513	AD2-210 BAT (Suspended)	0.1775	Merchant Transmission	0.1775
938601	AE1-081 C	-0.0510	Adder	-0.06
939121	AE1-142 C O1	0.7185	Adder	0.85
939122	AE1-142 E O1	1.0340	Adder	1.22
939981	AE1-238 C	31.3497	Adder	36.88
939982	AE1-238 E	82.3452	Adder	96.88
940161	AE2-000 C O1	18.6056	Adder	21.89
940162	AE2-000 E O1	47.6054	Adder	56.01
940401	AE2-024 C O1	15.0378	Adder	17.69
940402	AE2-024 E O1	70.4055	Adder	82.83
940411	AE2-025 C	7.5911	Adder	8.93
940412	AE2-025 E	35.5374	Adder	41.81
940691	AE2-056 C	0.1906	Adder	0.22
940692	AE2-056 E	0.1668	Adder	0.2
940701	AE2-057 C	0.0596	Adder	0.07
940702	AE2-057 E	0.0596	Adder	0.07
940921	AE2-081 C	0.2025	Adder	0.24
940922	AE2-081 E	0.2085	Adder	0.25
940931	AE2-082 C	0.3457	Adder	0.41
940932	AE2-082 E	0.3660	Adder	0.43
942253	AE2-237 BAT	6.7014	Merchant Transmission	6.7014
943521	AF1-023	1.2091	Adder	1.42
943561	AF1-027	0.1367	Adder	0.16
944332	AF1-101 E O1	46.6723	Adder	54.91
944611	AF1-126 C O1	3.0388	Adder	3.58
944612	AF1-126 E O1	12.1550	Adder	14.3
945571	AF1-222 C	19.5413	Adder	22.99
945572	AF1-222 E	51.5180	Adder	60.61
945951	AF1-260	0.1029	Adder	0.12
946603	AF1-324 BAT	1.4612	Merchant Transmission	1.4612
957271	AF2-021 C	0.5456	Adder	1.21
957272	AF2-021 E	0.8184	Adder	1.82
957781	AF2-072 C	1.2836	Adder	2.85
957782	AF2-072 E	1.2836	Adder	2.85
958761	AF2-167 C O2	0.2677	Adder	0.59
958762	AF2-167 E O2	0.3696	Adder	0.82
959151	AF2-206 C O2	0.3493	Adder	0.78
959152	AF2-206 E O2	0.4821	Adder	1.07
959631	AF2-254 C	0.1537	Adder	0.34
959632	AF2-254 E	0.2122	Adder	0.47
961221	AF2-413 O2	70.3950	50/50	70.3950
961512	AF1-442 NFTW	2.7852	Merchant Transmission	2.7852
961522	AF1-443 NFTW	2.7883	Merchant Transmission	2.7883

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
NEWTON	NEWTON	0.2837	Confirmed LTF	0.2837
FARMERCITY	FARMERCITY	0.0147	Confirmed LTF	0.0147
G-007A	G-007A	74.2362	Confirmed LTF	74.2362
CALDERWOOD	CALDERWOOD	0.1223	Confirmed LTF	0.1223
NY	NY	1.5340	Confirmed LTF	1.5340
PRAIRIE	PRAIRIE	0.6742	Confirmed LTF	0.6742
O-066	O-066	36.7517	Confirmed LTF	36.7517
CHEOAH	CHEOAH	0.1226	Confirmed LTF	0.1226
EDWARDS	EDWARDS	0.0935	Confirmed LTF	0.0935
TILTON	TILTON	0.1682	Confirmed LTF	0.1682
MADISON	MADISON	0.0081	Confirmed LTF	0.0081
GIBSON	GIBSON	0.1447	Confirmed LTF	0.1447
BLUEG	BLUEG	0.4600	Confirmed LTF	0.4600
TRIMBLE	TRIMBLE	0.1475	Confirmed LTF	0.1475
CATAWBA	CATAWBA	0.0805	Confirmed LTF	0.0805

13.5.27 Index 27

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100376183	218333	LNELSN_I	PSE&G	218301	MIDDLESEX_I	PSE&G	1	JC-P2-3-JCC-230-026FT	breaker	819.0	135.63	149.09	DC	110.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.4259	Adder	1.68
206325	28O C GEN (Deactivation : 17/09/2018)	27.4238	Adder	32.26
206327	28S RIV G1	5.6661	50/50	5.6661
206328	28S RIV G2	5.6661	50/50	5.6661
206329	28S RIV G3	7.6631	50/50	7.6631
206358	28PARLN1&2	3.5250	50/50	3.5250
206359	28PARLN3&4	4.2904	50/50	4.2904
206362	28RDOAKCT1	13.8130	50/50	13.8130
206363	28RDOAKCT2	13.7830	50/50	13.7830
206364	28RDOAKCT3	13.7830	50/50	13.7830
206365	28RDOAKST1	19.3699	50/50	19.3699
206370	LKWD CT3	28.3186	Adder	33.32
206403	28W4-009	60.6606	50/50	60.6606
206412	28R11	199.4608	50/50	199.4608
206414	28X4-005E	9.7012	50/50	9.7012
207143	28BYD_X4-031	0.3924	Adder	0.46
207400	28AA1-060 E	1.8267	Adder	2.15
207419	AB2-139 E	0.0630	Adder	0.07
207420	AC1-207 C	0.8017	Adder	0.94
218635	LAKENESP2_E	0.2172	50/50	0.2172
219630	LAKENESP2_C	0.0230	50/50	0.0230
901032	W1-024E OP1	0.3577	Adder	0.42
901112	W1-032 E OP1	0.2173	Adder	0.26
901422	W1-113 E	0.7220	Adder	0.85
901912	W1-112E OP1	0.6513	Adder	0.77
901982	W1-119 E	0.5771	Adder	0.68
901992	W1-120E	0.5771	Adder	0.68
902032	W1-124E	2.3116	Adder	2.72
902082	W1-129E	0.3134	Adder	0.37
902322	W2-019 E	0.3716	Adder	0.44
902912	W2-078 E	0.8086	Adder	0.95
902952	W2-082 E OP1	1.0700	Adder	1.26
903982	W3-079 E	0.6881	Adder	0.81
905252	W4-025 E	0.4449	Adder	0.52
905502	W4-060 E OP1	1.8324	Adder	2.16
907082	X1-037 E	1.9255	Adder	2.27
907272	X1-085 E	0.3174	Adder	0.37
912102	X4-015 E	0.3145	Adder	0.37
914092	Y2-051 E	0.4777	Adder	0.56
917612	Z2-102 E	0.8510	Adder	1.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919662	AA2-048 E	1.0947	Adder	1.29
920732	AA2-184 E	2.5731	Adder	3.03
923293	AB1-138 E	0.8092	Adder	0.95
923463	AB1-163 E	0.6625	Adder	0.78
927132	AC1-207 E	1.3417	Adder	1.58
934841	AD1-113 (Suspended)	36.3795	50/50	36.3795
939121	AE1-142 C O1	1.0839	Adder	1.28
939122	AE1-142 E O1	1.5598	Adder	1.84
939981	AE1-238 C	48.2524	Adder	56.77
939982	AE1-238 E	126.7429	Adder	149.11
940161	AE2-000 C O1	27.9728	Adder	32.91
940162	AE2-000 E O1	71.5727	Adder	84.2
940401	AE2-024 C O1	22.7738	Adder	26.79
940402	AE2-024 E O1	106.6244	Adder	125.44
940411	AE2-025 C	11.4962	Adder	13.52
940412	AE2-025 E	53.8191	Adder	63.32
940691	AE2-056 C	0.2914	Adder	0.34
940692	AE2-056 E	0.2550	Adder	0.3
940701	AE2-057 C	0.0910	Adder	0.11
940702	AE2-057 E	0.0910	Adder	0.11
940921	AE2-081 C	0.3096	Adder	0.36
940922	AE2-081 E	0.3188	Adder	0.38
940931	AE2-082 C	0.5237	Adder	0.62
940932	AE2-082 E	0.5545	Adder	0.65
943521	AF1-023	1.8633	Adder	2.19
943561	AF1-027	0.2030	Adder	0.24
944332	AF1-101 E O1	70.1698	Adder	82.55
944611	AF1-126 C O1	4.4935	Adder	5.29
944612	AF1-126 E O1	17.9741	Adder	21.15
945571	AF1-222 C	30.0773	Adder	35.39
945572	AF1-222 E	79.2947	Adder	93.29
945951	AF1-260	0.1564	Adder	0.18
957271	AF2-021 C	0.8107	Adder	1.8
957272	AF2-021 E	1.2160	Adder	2.7
957781	AF2-072 C	1.9439	Adder	4.31
957782	AF2-072 E	1.9439	Adder	4.31
958761	AF2-167 C O2	0.4131	Adder	0.92
958762	AF2-167 E O2	0.5705	Adder	1.27
959151	AF2-206 C O2	0.5305	Adder	1.18
959152	AF2-206 E O2	0.7322	Adder	1.63
959631	AF2-254 C	0.2289	Adder	0.51
959632	AF2-254 E	0.3161	Adder	0.7
961221	AF2-413 O2	110.0575	50/50	110.0575
NEWTON	NEWTON	0.5899	Confirmed LTF	0.5899
FARMERCITY	FARMERCITY	0.0306	Confirmed LTF	0.0306
G-007A	G-007A	116.2931	Confirmed LTF	116.2931
CALDERWOOD	CALDERWOOD	0.2624	Confirmed LTF	0.2624
NY	NY	1.5036	Confirmed LTF	1.5036
PRAIRIE	PRAIRIE	1.4103	Confirmed LTF	1.4103
O-066	O-066	29.3597	Confirmed LTF	29.3597
CHEOAH	CHEOAH	0.2643	Confirmed LTF	0.2643
EDWARDS	EDWARDS	0.1932	Confirmed LTF	0.1932

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TILTON	TILTON	0.3478	Confirmed LTF	0.3478
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.3003	Confirmed LTF	0.3003
BLUEG	BLUEG	0.9548	Confirmed LTF	0.9548
TRIMBLE	TRIMBLE	0.3061	Confirmed LTF	0.3061
CATAWBA	CATAWBA	0.1785	Confirmed LTF	0.1785

13.5.28 Index 28

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
100376250	218334	LNELSN_W	PSE&G	218522	MIDDLESEX_W	PSE&G	1	JC-P2-3-JCC-230-026HT	breaker	887.0	117.26	127.16	DC	87.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.1420	Adder	1.34
206325	28O C GEN (Deactivation : 17/09/2018)	22.1882	Adder	26.1
206327	28S RIV G1	4.5098	50/50	4.5098
206328	28S RIV G2	4.5098	50/50	4.5098
206329	28S RIV G3	6.0993	50/50	6.0993
206358	28PARLN1&2	2.8063	50/50	2.8063
206359	28PARLN3&4	3.4157	50/50	3.4157
206362	28RDOAKCT1	10.9929	50/50	10.9929
206363	28RDOAKCT2	10.9695	50/50	10.9695
206364	28RDOAKCT3	10.9695	50/50	10.9695
206365	28RDOAKST1	15.4153	50/50	15.4153
206370	LKWD CT3	22.8514	Adder	26.88
206403	28W4-009	48.2561	50/50	48.2561
206412	28R11	158.7564	50/50	158.7564
206414	28X4-005E	7.7174	50/50	7.7174
207143	28BYD_X4-031	0.3148	Adder	0.37
207400	28AA1-060 E	1.4847	Adder	1.75
207419	AB2-139 E	0.0509	Adder	0.06
207420	AC1-207 C	0.6455	Adder	0.76
218628	LAKENESP1_C	0.0183	50/50	0.0183
218629	LAKENESP1_E	0.1725	50/50	0.1725
901032	W1-024E OP1	0.2888	Adder	0.34
901112	W1-032 E OP1	0.1764	Adder	0.21
901422	W1-113 E	0.5829	Adder	0.69
901912	W1-112E OP1	0.5204	Adder	0.61
901982	W1-119 E	0.4683	Adder	0.55
901992	W1-120E	0.4683	Adder	0.55
902032	W1-124E	1.8512	Adder	2.18
902082	W1-129E	0.2546	Adder	0.3
902322	W2-019 E	0.3019	Adder	0.36
902912	W2-078 E	0.6528	Adder	0.77
902952	W2-082 E OP1	0.8689	Adder	1.02
903982	W3-079 E	0.5542	Adder	0.65
905252	W4-025 E	0.3614	Adder	0.43
905502	W4-060 E OP1	1.4622	Adder	1.72
907082	X1-037 E	1.5467	Adder	1.82
907272	X1-085 E	0.2580	Adder	0.3
912102	X4-015 E	0.2554	Adder	0.3
914092	Y2-051 E	0.3849	Adder	0.45
917612	Z2-102 E	0.6906	Adder	0.81

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919662	AA2-048 E	0.8816	Adder	1.04
920732	AA2-184 E	2.0605	Adder	2.42
923293	AB1-138 E	0.6534	Adder	0.77
923463	AB1-163 E	0.5351	Adder	0.63
927132	AC1-207 E	1.0802	Adder	1.27
934841	AD1-113 (Suspended)	28.9403	50/50	28.9403
937513	AD2-210 BAT (Suspended)	0.1638	Merchant Transmission	0.1638
939121	AE1-142 C O1	0.8756	Adder	1.03
939122	AE1-142 E O1	1.2601	Adder	1.48
939981	AE1-238 C	38.6593	Adder	45.48
939982	AE1-238 E	101.5450	Adder	119.46
940161	AE2-000 C O1	22.6324	Adder	26.63
940162	AE2-000 E O1	57.9085	Adder	68.13
940401	AE2-024 C O1	18.3668	Adder	21.61
940402	AE2-024 E O1	85.9914	Adder	101.17
940411	AE2-025 C	9.2716	Adder	10.91
940412	AE2-025 E	43.4045	Adder	51.06
940691	AE2-056 C	0.2341	Adder	0.28
940692	AE2-056 E	0.2048	Adder	0.24
940701	AE2-057 C	0.0731	Adder	0.09
940702	AE2-057 E	0.0731	Adder	0.09
940921	AE2-081 C	0.2487	Adder	0.29
940922	AE2-081 E	0.2561	Adder	0.3
940931	AE2-082 C	0.4222	Adder	0.5
940932	AE2-082 E	0.4470	Adder	0.53
943521	AF1-023	1.4921	Adder	1.76
943561	AF1-027	0.1650	Adder	0.19
944332	AF1-101 E O1	56.7734	Adder	66.79
944611	AF1-126 C O1	3.6592	Adder	4.3
944612	AF1-126 E O1	14.6370	Adder	17.22
945571	AF1-222 C	24.0976	Adder	28.35
945572	AF1-222 E	63.5301	Adder	74.74
945951	AF1-260	0.1259	Adder	0.15
957271	AF2-021 C	0.6594	Adder	1.46
957272	AF2-021 E	0.9891	Adder	2.2
957781	AF2-072 C	1.5677	Adder	3.48
957782	AF2-072 E	1.5677	Adder	3.48
958761	AF2-167 C O2	0.3306	Adder	0.73
958762	AF2-167 E O2	0.4566	Adder	1.01
959151	AF2-206 C O2	0.4274	Adder	0.95
959152	AF2-206 E O2	0.5898	Adder	1.31
959631	AF2-254 C	0.1858	Adder	0.41
959632	AF2-254 E	0.2566	Adder	0.57
961221	AF2-413 O2	87.6200	50/50	87.6200
NEWTON	NEWTON	0.3804	Confirmed LTF	0.3804
FARMERCITY	FARMERCITY	0.0197	Confirmed LTF	0.0197
G-007A	G-007A	92.5123	Confirmed LTF	92.5123
CALDERWOOD	CALDERWOOD	0.1660	Confirmed LTF	0.1660
NY	NY	1.6955	Confirmed LTF	1.6955
PRAIRIE	PRAIRIE	0.9066	Confirmed LTF	0.9066
O-066	O-066	39.0768	Confirmed LTF	39.0768
CHEOAH	CHEOAH	0.1672	Confirmed LTF	0.1672

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
EDWARDS	EDWARDS	0.1249	Confirmed LTF	0.1249
TILTON	TILTON	0.2249	Confirmed LTF	0.2249
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1938	Confirmed LTF	0.1938
BLUEG	BLUEG	0.6163	Confirmed LTF	0.6163
TRIMBLE	TRIMBLE	0.1976	Confirmed LTF	0.1976
CATAWBA	CATAWBA	0.1109	Confirmed LTF	0.1109

13.5.29 Index 29

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
100376245	218522	MIDDLESEX_W	PSE&G	218313	GREENBK_W	PSE&G	1	JC-P2-3-JCC-230-026HT	breaker	887.0	117.26	127.16	DC	87.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206271	28MCRC/REC	1.1420	Adder	1.34
206325	28O C GEN (Deactivation : 17/09/2018)	22.1882	Adder	26.1
206327	28S RIV G1	4.5098	50/50	4.5098
206328	28S RIV G2	4.5098	50/50	4.5098
206329	28S RIV G3	6.0993	50/50	6.0993
206358	28PARLN1&2	2.8063	50/50	2.8063
206359	28PARLN3&4	3.4157	50/50	3.4157
206362	28RDOAKCT1	10.9929	50/50	10.9929
206363	28RDOAKCT2	10.9695	50/50	10.9695
206364	28RDOAKCT3	10.9695	50/50	10.9695
206365	28RDOAKST1	15.4153	50/50	15.4153
206370	LKWD CT3	22.8514	Adder	26.88
206403	28W4-009	48.2561	50/50	48.2561
206412	28R11	158.7564	50/50	158.7564
206414	28X4-005E	7.7174	50/50	7.7174
207143	28BYD_X4-031	0.3148	Adder	0.37
207400	28AA1-060 E	1.4847	Adder	1.75
207419	AB2-139 E	0.0509	Adder	0.06
207420	AC1-207 C	0.6455	Adder	0.76
218628	LAKENESP1_C	0.0183	50/50	0.0183
218629	LAKENESP1_E	0.1725	50/50	0.1725
901032	W1-024E OP1	0.2888	Adder	0.34
901112	W1-032 E OP1	0.1764	Adder	0.21
901422	W1-113 E	0.5829	Adder	0.69
901912	W1-112E OP1	0.5204	Adder	0.61
901982	W1-119 E	0.4683	Adder	0.55
901992	W1-120E	0.4683	Adder	0.55
902032	W1-124E	1.8512	Adder	2.18
902082	W1-129E	0.2546	Adder	0.3
902322	W2-019 E	0.3019	Adder	0.36
902912	W2-078 E	0.6528	Adder	0.77
902952	W2-082 E OP1	0.8689	Adder	1.02
903982	W3-079 E	0.5542	Adder	0.65
905252	W4-025 E	0.3614	Adder	0.43
905502	W4-060 E OP1	1.4622	Adder	1.72
907082	X1-037 E	1.5467	Adder	1.82
907272	X1-085 E	0.2580	Adder	0.3
912102	X4-015 E	0.2554	Adder	0.3
914092	Y2-051 E	0.3849	Adder	0.45
917612	Z2-102 E	0.6906	Adder	0.81

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
919662	AA2-048 E	0.8816	Adder	1.04
920732	AA2-184 E	2.0605	Adder	2.42
923293	AB1-138 E	0.6534	Adder	0.77
923463	AB1-163 E	0.5351	Adder	0.63
927132	AC1-207 E	1.0802	Adder	1.27
934841	AD1-113 (Suspended)	28.9403	50/50	28.9403
937513	AD2-210 BAT (Suspended)	0.1638	Merchant Transmission	0.1638
939121	AE1-142 C O1	0.8756	Adder	1.03
939122	AE1-142 E O1	1.2601	Adder	1.48
939981	AE1-238 C	38.6593	Adder	45.48
939982	AE1-238 E	101.5450	Adder	119.46
940161	AE2-000 C O1	22.6324	Adder	26.63
940162	AE2-000 E O1	57.9085	Adder	68.13
940401	AE2-024 C O1	18.3668	Adder	21.61
940402	AE2-024 E O1	85.9914	Adder	101.17
940411	AE2-025 C	9.2716	Adder	10.91
940412	AE2-025 E	43.4045	Adder	51.06
940691	AE2-056 C	0.2341	Adder	0.28
940692	AE2-056 E	0.2048	Adder	0.24
940701	AE2-057 C	0.0731	Adder	0.09
940702	AE2-057 E	0.0731	Adder	0.09
940921	AE2-081 C	0.2487	Adder	0.29
940922	AE2-081 E	0.2561	Adder	0.3
940931	AE2-082 C	0.4222	Adder	0.5
940932	AE2-082 E	0.4470	Adder	0.53
943521	AF1-023	1.4921	Adder	1.76
943561	AF1-027	0.1650	Adder	0.19
944332	AF1-101 E O1	56.7734	Adder	66.79
944611	AF1-126 C O1	3.6592	Adder	4.3
944612	AF1-126 E O1	14.6370	Adder	17.22
945571	AF1-222 C	24.0976	Adder	28.35
945572	AF1-222 E	63.5301	Adder	74.74
945951	AF1-260	0.1259	Adder	0.15
957271	AF2-021 C	0.6594	Adder	1.46
957272	AF2-021 E	0.9891	Adder	2.2
957781	AF2-072 C	1.5677	Adder	3.48
957782	AF2-072 E	1.5677	Adder	3.48
958761	AF2-167 C O2	0.3306	Adder	0.73
958762	AF2-167 E O2	0.4566	Adder	1.01
959151	AF2-206 C O2	0.4274	Adder	0.95
959152	AF2-206 E O2	0.5898	Adder	1.31
959631	AF2-254 C	0.1858	Adder	0.41
959632	AF2-254 E	0.2566	Adder	0.57
961221	AF2-413 O2	87.6200	50/50	87.6200
NEWTON	NEWTON	0.3804	Confirmed LTF	0.3804
FARMERCITY	FARMERCITY	0.0197	Confirmed LTF	0.0197
G-007A	G-007A	92.5123	Confirmed LTF	92.5123
CALDERWOOD	CALDERWOOD	0.1660	Confirmed LTF	0.1660
NY	NY	1.6955	Confirmed LTF	1.6955
PRAIRIE	PRAIRIE	0.9066	Confirmed LTF	0.9066
O-066	O-066	39.0768	Confirmed LTF	39.0768
CHEOAH	CHEOAH	0.1672	Confirmed LTF	0.1672

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
EDWARDS	EDWARDS	0.1249	Confirmed LTF	0.1249
TILTON	TILTON	0.2249	Confirmed LTF	0.2249
MADISON	MADISON	0.0101	Confirmed LTF	0.0101
GIBSON	GIBSON	0.1938	Confirmed LTF	0.1938
BLUEG	BLUEG	0.6163	Confirmed LTF	0.6163
TRIMBLE	TRIMBLE	0.1976	Confirmed LTF	0.1976
CATAWBA	CATAWBA	0.1109	Confirmed LTF	0.1109

13.5.30 Index 30

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
100377271	219104	CLRKSVLL_2	PSE&G	217150	LAWRENCE	PSE&G	1	PS_P7-1_1LINE+2LINE	tower	869.0	124.6	126.9	DC	49.21

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
206201	28JERSVGEN	0.0694	50/50	0.0694
206271	28MCRC/REC	1.0625	Adder	1.25
206325	28O C GEN (Deactivation : 17/09/2018)	28.6601	Adder	33.72
206350	28RRCT1&2	2.7606	50/50	2.7606
206351	28RRCT3&4	2.5850	50/50	2.5850
206365	28RDOAKST1	8.3011	50/50	8.3011
206368	28MDLSEXCO	0.6934	50/50	0.6934
206370	LKWD CT3	30.0186	Adder	35.32
206403	28W4-009	24.7252	50/50	24.7252
206412	28R11	73.7117	Adder	86.72
206414	28X4-005E	3.9542	50/50	3.9542
206416	28MLH_W1-032	0.0405	50/50	0.0405
207143	28BYD_X4-031	0.3251	Adder	0.38
207152	28NPK_W1-113	0.1291	50/50	0.1291
207162	28APLW2-078	0.1445	50/50	0.1445
207169	28W4-060COL	0.1306	50/50	0.1306
207205	28MAN_W1-024	0.0566	50/50	0.0566
207400	28AA1-060 E	2.4091	Adder	2.83
207419	AB2-139 E	0.0979	50/50	0.0979
207420	AC1-207 C	1.1005	50/50	1.1005
219278	CLARKSP1_C	0.0016	50/50	0.0016
219281	CLARKSP1_E	0.0148	50/50	0.0148
219283	CLARKSP2_C	0.0012	50/50	0.0012
219302	CLARKSP2_E	0.0122	50/50	0.0122
219327	CLARKSP3_C	0.0004	50/50	0.0004
219329	CLARKSP3_E	0.0031	50/50	0.0031
219330	CLARKSP4_C	0.0006	50/50	0.0006
219335	CLARKSP4_E	0.0061	50/50	0.0061
219679	NRGCENTER E	-0.3194	Adder	-0.38
901032	W1-024E OP1	0.5401	50/50	0.5401
901112	W1-032 E OP1	0.3973	50/50	0.3973
901422	W1-113 E	1.2313	50/50	1.2313
901912	W1-112E OP1	0.4117	Adder	0.48
901982	W1-119 E	0.6145	Adder	0.72
901992	W1-120E	0.6145	Adder	0.72
902032	W1-124E	1.7175	Adder	2.02
902082	W1-129E	0.3351	Adder	0.39
902322	W2-019 E	0.3976	Adder	0.47
902912	W2-078 E	1.3793	50/50	1.3793
902952	W2-082 E OP1	1.1430	Adder	1.34
903982	W3-079 E	0.6787	Adder	0.8

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
905252	W4-025 E	0.4756	Adder	0.56
905502	W4-060 E OP1	1.2350	50/50	1.2350
907082	X1-037 E	1.7601	Adder	2.07
907272	X1-085 E	0.4738	Adder	0.56
912102	X4-015 E	0.3361	Adder	0.4
914092	Y2-051 E	0.4812	Adder	0.57
917612	Z2-102 E	0.9063	Adder	1.07
919662	AA2-048 E	1.0798	Adder	1.27
919712	AA2-058 E	-0.1713	Adder	-0.2
919802	AA2-066 E	-0.3194	Adder	-0.38
920732	AA2-184 E	1.8998	Adder	2.24
923293	AB1-138 E	0.8424	Adder	0.99
923463	AB1-163 E	0.6827	Adder	0.8
927132	AC1-207 E	1.8416	50/50	1.8416
934841	AD1-113 (Suspended)	14.8283	50/50	14.8283
937523	AD2-213 BAT	1.8028	Merchant Transmission	1.8028
939121	AE1-142 C O1	1.1388	Adder	1.34
939122	AE1-142 E O1	1.6388	Adder	1.93
939981	AE1-238 C	36.7276	Adder	43.21
939982	AE1-238 E	96.4713	Adder	113.5
940161	AE2-000 C O1	29.2338	Adder	34.39
940162	AE2-000 E O1	74.7993	Adder	88.0
940401	AE2-024 C O1	24.2410	Adder	28.52
940402	AE2-024 E O1	113.4939	Adder	133.52
940411	AE2-025 C	12.2369	Adder	14.4
940412	AE2-025 E	57.2865	Adder	67.4
940691	AE2-056 C	0.2675	Adder	0.31
940692	AE2-056 E	0.2340	Adder	0.28
940701	AE2-057 C	0.1006	50/50	0.1006
940702	AE2-057 E	0.1006	50/50	0.1006
940921	AE2-081 C	0.2842	Adder	0.33
940922	AE2-081 E	0.2925	Adder	0.34
940931	AE2-082 C	0.7622	50/50	0.7622
940932	AE2-082 E	0.8071	50/50	0.8071
943521	AF1-023	1.3757	Adder	1.62
943561	AF1-027	0.2677	Adder	0.31
944332	AF1-101 E O1	73.3331	Adder	86.27
944432	AF1-108 BAT	1.8624	Merchant Transmission	1.8624
944442	AF1-109 BAT	5.4184	50/50	5.4184
944611	AF1-126 C O1	4.2207	Adder	4.97
944612	AF1-126 E O1	16.8827	Adder	19.86
945201	AF1-185 1	0.8897	50/50	0.8897
945211	AF1-185 2	0.1977	50/50	0.1977
945571	AF1-222 C	22.8936	Adder	26.93
945572	AF1-222 E	60.3558	Adder	71.01
945723	AF1-237 BAT	38.8180	Merchant Transmission	38.8180
945951	AF1-260	0.1543	Adder	0.18
957271	AF2-021 C	0.8268	Adder	1.84
957272	AF2-021 E	1.2401	Adder	2.75
957771	AF2-071	34.0690	50/50	34.0690
957781	AF2-072 C	2.0691	Adder	4.59
957782	AF2-072 E	2.0691	Adder	4.59

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958761	AF2-167 C O2	0.2929	Adder	0.65
958762	AF2-167 E O2	0.4044	Adder	0.9
959151	AF2-206 C O2	0.5281	Adder	1.17
959152	AF2-206 E O2	0.7289	Adder	1.62
959631	AF2-254 C	0.2443	Adder	0.54
959632	AF2-254 E	0.3374	Adder	0.75
961221	AF2-413 O2	22.1702	Adder	49.21
NEWTON	NEWTON	0.2590	Confirmed LTF	0.2590
FARMERCITY	FARMERCITY	0.0134	Confirmed LTF	0.0134
G-007A	G-007A	47.4010	Confirmed LTF	47.4010
CALDERWOOD	CALDERWOOD	0.1193	Confirmed LTF	0.1193
NY	NY	0.2135	Confirmed LTF	0.2135
PRAIRIE	PRAIRIE	0.6199	Confirmed LTF	0.6199
O-066	O-066	7.3450	Confirmed LTF	7.3450
CHEOAH	CHEOAH	0.1201	Confirmed LTF	0.1201
EDWARDS	EDWARDS	0.0843	Confirmed LTF	0.0843
TILTON	TILTON	0.1518	Confirmed LTF	0.1518
GIBSON	GIBSON	0.1316	Confirmed LTF	0.1316
BLUEG	BLUEG	0.4184	Confirmed LTF	0.4184
TRIMBLE	TRIMBLE	0.1341	Confirmed LTF	0.1341
CATAWBA	CATAWBA	0.0837	Confirmed LTF	0.0837

13.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
JC-P7-1-JCC-230-7A	CONTINGENCY 'JC-P7-1-JCC-230-7A' /* SMITHBURG - LARRABEE 230 LINES DISCONNECT BRANCH FROM BUS 206309 TO BUS 206294 CKT 1 DISCONNECT BRANCH FROM BUS 206309 TO BUS 206294 CKT 2 END
JC-P2-3-JCC-230-83	CONTINGENCY 'JC-P2-3-JCC-230-83' /* SOUTH RIVER JUNCTION SOUTH RIVER-ATLANTIC LINES STUCK BREAKER DISCONNECT BRANCH FROM BUS 206411 TO BUS 206321 CKT 1 /* SOUTH RIVER JUNCTION - SOUTH RIVER 230 LINE DISCONNECT BRANCH FROM BUS 206411 TO BUS 206286 CKT 1 /* SOUTH RIVER JUNCTION - ATLANTIC 230 LINE END
JC-P2-3-JCC-230-80	CONTINGENCY 'JC-P2-3-JCC-230-80' /* SOUTH RIVER JUNCTION G-T (RARITAN RIVER) LINES STUCK BREAKER DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 DISCONNECT BUS 206315 /* RED OAK 230 KV B TAP DISCONNECT BUS 206362 /* RED OAK 230 KV #1 DISCONNECT BUS 206365 /* RED OAK 230 KV #4 END
PS_P1-2_I-1023_LT	CONTINGENCY 'PS_P1-2_I-1023_LT' /* TIE LINE GILLET I TO BRIDGEWATER THROUGH MIDDLESEX DISCONNECT BUS 218312 /* GREEN BROOK STATION DISCONNECT BUS 218301 /* MIDDLESEX I DISCONNECT BUS 218333 /* LAKE NELSON BUS I CLOSE LINE FROM BUS 218388 TO BUS 218389 CKT Z /* LAKE NELSON MOVE 8 MW LOAD FROM BUS 218389 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218388 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T4 CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218406 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOMRVLLT T2 MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218386 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T1 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218395 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOUTH SECOND ST.(METUCHEN 26KV IM) END

Contingency Name	Contingency Definition
PS_P1-2_#1LINE	CONTINGENCY 'PS_P1-2_#1LINE' /* LAKE NELSON TO RARITAN RIVER DISCONNECT BUS 218331 /* KILMER #1 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER END
PS_P2-3_LNEPS_P1-2_1_LT	CONTINGENCY 'PS_P2-3_LNEPS_P1-2_1_LT' /* STUCK BREAKER ON LAKE NELSON I LINE DISCONNECT BUS 218312 /* GREEN BROOK STATION DISCONNECT BUS 218301 /* MIDDLE LOSS OF BUS DISCONNECT BUS 218333 /* LAKE NELSON BUS I DISCONNECT BUS 218331 /* REMOVE KILMER LINE #1 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 CLOSE LINE FROM BUS 218388 TO BUS 218389 CKT Z /* LAKE NELSON MOVE 8 MW LOAD FROM BUS 218389 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218388 TO BUS 218385 /* INTERSTATION TIE TRANSFER LOAD FROM LNELSN TO KILMER T4 CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218406 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOMRVLLT T2 MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218386 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T1 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218395 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOUTH SECOND ST.(METUCHEN 26KV IM) END
JC-P2-3-JCC-230-85	CONTINGENCY 'JC-P2-3-JCC-230-85' /* SOUTH RIVER JUNCTION PARLIN- G1047 RARITAN RIVER LINES STUCK BREAKER DISCONNECT BRANCH FROM BUS 206410 TO BUS 206322 CKT 1 /* SOUTH RIVER JUNCTION - PARLIN 230 LINE DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 END
JC-P1-2-JCC-230-018	CONTINGENCY 'JC-P1-2-JCC-230-018' /* LARRABEE - SMITHBURG (H2008) 230 KV DISCONNECT BRANCH FROM BUS 206309 TO BUS 206294 CKT 2 DISCONNECT BRANCH FROM BUS 200017 TO BUS 206309 CKT 4 /* SMITHBURG SMITHBURG 500 230 END

Contingency Name	Contingency Definition
JC-P1-2-JCC-230-043T	CONTINGENCY 'JC-P1-2-JCC-230-043T' /* RARITAN RIVER - LAKE NELSON (W1037) 230 KV LINE DISCONNECT BRANCH FROM BUS 206305 TO BUS 218332 CKT 1 /* 28RAR RVR - KILMER_W 230.00 LINE DISCONNECT BRANCH FROM BUS 218332 TO BUS 218334 CKT 1 /* KILMER_W - LNELSN_W 230.00 LINE DISCONNECT BRANCH FROM BUS 218386 TO BUS 218332 CKT 1 /* KILMER_L1 13.20 - KILMER_W 230.00 XFMR DISCONNECT BRANCH FROM BUS 218387 TO BUS 218332 CKT 1 /* KILMER_L3 13.20 - KILMER_W 230.00 XFMR END
JC-P1-2-JCC-230-017	CONTINGENCY 'JC-P1-2-JCC-230-017' /* FUTURE BREAKERS LARRABEE - SMITHBURG (D2004) 230 KV DISCONNECT BRANCH FROM BUS 206294 TO BUS 206309 CKT 1 END
PS_P1-2_#2LINE_LT	CONTINGENCY 'PS_P1-2_#2LINE_LT' /* LAKE NELSON TO RARITIAN RIVER DISCONNECT BUS 218332 /* REMOVE KILMER CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER MOVE 8 MW LOAD FROM BUS 218384 TO BUS 218383 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO GREENBK T1 MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 END
JC-P1-2-JCC-230-012	CONTINGENCY 'JC-P1-2-JCC-230-012' /* FRENEAU - PARLIN (K1025) 230 KV & FRENEAU BANK 1 3 6 DISCONNECT BRANCH FROM BUS 206292 TO BUS 206298 CKT 1 /* 206292 FRENEAU 230.00 206298 28WILLIAMS 230.00 DISCONNECT BRANCH FROM BUS 206298 TO BUS 206322 CKT 1 /* 206298 28WILLIAMS 230.00 206322 28PARLIN 230.00 DISCONNECT BRANCH FROM BUS 206292 TO BUS 206267 CKT 1 /* FRENEAU TR 1 DISCONNECT BRANCH FROM BUS 206292 TO BUS 206267 CKT 6 /* FRENEAU TR 6 SET BUS 206292 LOAD TO 30 MW /* FRENEAU TR 3 END

Contingency Name	Contingency Definition
JC-P2-3-JCC-230-026HT	CONTINGENCY 'JC-P2-3-JCC-230-026HT' /* RARITAN RIVER B1 STUCK BREAKER DISCONNECT BUS 218331 /* KILMER I 230 KV TAP DISCONNECT BUS 218384 /* KILMER L2 DISCONNECT BUS 218385 /* KILMER L4 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 17 /* RARITAN RIVER #17 230/115 KV TRANSFORMER DISCONNECT BUS 206350 /* SAYREVILLE GENERATOR DISCONNECT BUS 206351 /* SAYREVILLE GENERATOR END
JC-P7-1-JCC-230-10A	CONTINGENCY 'JC-P7-1-JCC-230-10A' /* LAKEWOOD - LARRABEE 230 KV LINES DISCONNECT BRANCH FROM BUS 206323 TO BUS 206294 CKT 2 DISCONNECT BRANCH FROM BUS 206323 TO BUS 206294 CKT 1 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206274 CKT 3 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206275 CKT 12 /* LARRABEE 12 FUTURE BREAKER AND A HALF SET BUS 206294 LOAD TO 38 MW /* LARRABEE 8 FUTURE BREAKER AND A HALF END
JC-P2-3-JCC-230-13A	CONTINGENCY 'JC-P2-3-JCC-230-13A' /* LARRABEE - SMITHBURG (D2004) & LAKEWOOD (Z2026) 230 KV DISCONNECT BRANCH FROM BUS 206294 TO BUS 206309 CKT 1 /* LARRABEE- SMITHBURG (D2004) DISCONNECT BRANCH FROM BUS 206294 TO BUS 206323 CKT 2 /* LARRABEE- LAKEWOOD (Z2026) SET BUS 206294 LOAD TO 0 MW /* LARRABEE BK8 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206275 CKT 12 /* LARRABEE BK12 END
JC-P2-3-JCC-230-47D	CONTINGENCY 'JC-P2-3-JCC-230-47D' /* ATLANTIC - OCEANVIEW (Y2025) & OCEANVIEW BK1 230 KV FUTURE OCEANVIEW RING BUS DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT Y /* ATLANTIC - OCEANVIEW (Y2025) DISCONNECT BRANCH FROM BUS 206300 TO BUS 206273 CKT 1 /* OCEANVIEW BK1 REDUCE BUS 206273 SHUNT BY 50 PERCENT /* OCEANVIEW CAPS ON 34.5 KV BUS A DISCONNECT BRANCH FROM BUS 206273 TO BUS 206929 CKT 2 /* OCEANVIEW - ALLENHURST (X102) 34.5KV END
JC-P2-3-JCC-230-47E	CONTINGENCY 'JC-P2-3-JCC-230-47E' /* OCEANVIEW BK2 230 KV FUTURE OCEANVIEW RING BUS & ATLANTIC - OCEANVIEW (Y2025) DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT Y /* ATLANTIC - OCEANVIEW (Y2025) DISCONNECT BRANCH FROM BUS 206300 TO BUS 206273 CKT 2 /* OCEANVIEW BK2 REDUCE BUS 206273 SHUNT BY 50 PERCENT /* OCEANVIEW CAPS ON 34.5 KV BUS B END

Contingency Name	Contingency Definition
JC-P2-3-JCC-230-47C	CONTINGENCY 'JC-P2-3-JCC-230-47C' /* ATLANTIC - OCEANVIEW (X2024) & OCEANVIEW BK2 230 KV FUTURE OCEANVIEW RING BUS DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT X /* ATLANTIC - OCEANVIEW (X2024) DISCONNECT BRANCH FROM BUS 206300 TO BUS 206273 CKT 2 /* OCEANVIEW BK2 REDUCE BUS 206273 SHUNT BY 50 PERCENT /* OCEANVIEW CAPS ON 34.5 KV BUS B DISCONNECT BRANCH FROM BUS 206273 TO BUS 206929 CKT 1 /* OCEANVIEW - ALLENHURST (H216) 34.5KV END
JC-P2-3-JCC-230-15G	CONTINGENCY 'JC-P2-3-JCC-230-15G' /* LARRABEE-SMITHBURG (H2008) 230 KV & LARRABEE NW BUS 230 KV DISCONNECT BRANCH FROM BUS 206294 TO BUS 206309 CKT 2 /* LARRABEE- SMITHBURG (H2008) REMOVE LOAD 7 FROM BUS 206294 /* LARRABEE BK7 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206275 CKT 9 /* LARRABEE BK9 END
JC-P2-3-JCC-230-15F	CONTINGENCY 'JC-P2-3-JCC-230-15F' /* LARRABEE - SMITHBURG (D2004) & LARRABEE NW BUS 230 KV DISCONNECT BRANCH FROM BUS 206294 TO BUS 206309 CKT 1 /* LARRABEE- SMITHBURG (D2004) REMOVE LOAD 7 FROM BUS 206294 /* LARRABEE BK7 DISCONNECT BRANCH FROM BUS 206294 TO BUS 206275 CKT 9 /* LARRABEE BK9 END
JC-P2-3-JCC-230-15A	CONTINGENCY 'JC-P2-3-JCC-230-15A' /* LAKEWOOD-LARRABEE (K2011) & LARRABEE-SMITHBURG (H2008) 230 KV DISCONNECT BRANCH FROM BUS 206294 TO BUS 206323 CKT 1 /* LARRABEE - LAKEWOOD (K2011) DISCONNECT BRANCH FROM BUS 206294 TO BUS 206309 CKT 2 /* LARRABEE- SMITHBURG (H2008) END
JC-P2-3-JCC-230-26B	CONTINGENCY 'JC-P2-3-JCC-230-26B' /* RARITAN RIVER B144 STUCK BREAKER DISCONNECT BUS 206315 /* RED OAK 230 KV B TAP DISCONNECT BUS 206362 /* RED OAK 230 KV #1 DISCONNECT BUS 206365 /* RED OAK 230 KV #4 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 13 /* RARITAN RIVER #13 230/115 KV TRANSFORMER DISCONNECT BUS 206403 /* WOODBRIDGE GENERATOR END

Contingency Name	Contingency Definition
JC-P2-3-JCC-230-026C	CONTINGENCY 'JC-P2-3-JCC-230-026C' /* RARITAN RIVER B145 STUCK BREAKER DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 17 /* RARITAN RIVER #17 230/115 KV TRANSFORMER DISCONNECT BUS 206350 /* SAYREVILLE GENERATOR DISCONNECT BUS 206351 /* SAYREVILLE GENERATOR END
JC-P7-1-JCC-230-12	CONTINGENCY 'JC-P7-1-JCC-230-12' /* LEISURE VILLAGE-MANITOU A2027 & C2029 DISCONNECT BRANCH FROM BUS 206295 TO BUS 206297 CKT 1 DISCONNECT BRANCH FROM BUS 206297 TO BUS 206277 CKT 7 DISCONNECT BRANCH FROM BUS 206296 TO BUS 206297 CKT 1 DISCONNECT BRANCH FROM BUS 206296 TO BUS 206276 CKT 3 SET BUS 206296 LOAD TO 0 MW END
PS_P7-1_1LINE+2LINE	CONTINGENCY 'PS_P7-1_1LINE+2LINE' /* LAKE NELSON - RARITIAN X2 DISCONNECT BUS 218331 /* REMOVE KILMER 1 DISCONNECT BUS 218332 /* REMOVE KILMER 2 MOVE 8 MW LOAD FROM BUS 218384 TO BUS 218383 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO GREENBK T1 MOVE 8 MW LOAD FROM BUS 218387 TO BUS 218399 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO NEWDOVR T2 MOVE 8 MW LOAD FROM BUS 218385 TO BUS 218393 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO MDWRD T2 MOVE 8 MW LOAD FROM BUS 218386 TO BUS 218347 /* INTERSTATION TIE TRANSFER LOAD FROM KILMER TO BNNTLANE T2 END
PS_P1-2_#2LINE	CONTINGENCY 'PS_P1-2_#2LINE' /* LAKE NELSON TO RARITIAN RIVER DISCONNECT BUS 218332 /* KILMER LINE #2 CLOSE LINE FROM BUS 218384 TO BUS 218387 CKT Z /* KILMER CLOSE LINE FROM BUS 218385 TO BUS 218386 CKT Z /* KILMER END

Contingency Name	Contingency Definition
PS_P7-1_I1023+GBK-LN_LT	CONTINGENCY 'PS_P7-1_I1023+GBK-LN_LT' /* LAKE NELSON - GILLETE BRIDGEWATER & LAKE NELSON -GREENBROOK DISCONNECT BUS 218312 /* GREENBROOK I DISCONNECT BUS 218301 /* MIDDLESEX I DISCONNECT BUS 218333 /* LAKE NELSON I DISCONNECT BUS 218334 /* LAKE NELSON W DISCONNECT BUS 218522 /* MIDDLESEX W CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218406 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOMRVLL T2 MOVE 8 MW LOAD FROM BUS 218382 TO BUS 218386 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T1 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218384 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO KILMER T2 MOVE 8 MW LOAD FROM BUS 218383 TO BUS 218395 /* INTERSTATION TIE TRANSFER LOAD FROM GREENBK TO SOUTH SECOND ST.(METUCHEN 26KV IM) END
JC-P1-2-JCC-230-027	CONTINGENCY 'JC-P1-2-JCC-230-027' /* RARITAN RIVER - RED OAK - R11 (G1047) 230 KV LINE DISCONNECT BRANCH FROM BUS 206305 TO BUS 206315 CKT 1 DISCONNECT BRANCH FROM BUS 206315 TO BUS 206410 CKT 1 DISCONNECT BUS 206315 DISCONNECT BUS 206362 DISCONNECT BUS 206365 END
JC-P1-2-JCC-230-008	CONTINGENCY 'JC-P1-2-JCC-230-008' /* ATLANTIC - SOUTH RIVER JUNCTION (P1030) 230 KV DISCONNECT BRANCH FROM BUS 206286 TO BUS 206272 CKT 1 /* 206286 28ATLANTIC 230.00 206272 28ATLANT_A 34.50 DISCONNECT BRANCH FROM BUS 206286 TO BUS 206411 CKT 1 /* 206286 28ATLANTIC 230.00 206411 28SRIVERJCT 230.00 END
JC-P1-2-JCC-230-042T	CONTINGENCY 'JC-P1-2-JCC-230-042T' /** RARITAN RIVER - LAKE NELSON (I1023) 230 KV LINE DISCONNECT BRANCH FROM BUS 206305 TO BUS 218331 CKT 1 /* 28RAR RVR - KILMER_I 230.00 LINE DISCONNECT BRANCH FROM BUS 218331 TO BUS 218333 CKT 1 /* KILMER_I - LNELSN_I 230.00 LINE DISCONNECT BRANCH FROM BUS 218384 TO BUS 218331 CKT 1 /* KILMER_L2 13.20 - KILMER_I 230.00 XFMR DISCONNECT BRANCH FROM BUS 218385 TO BUS 218331 CKT 1 /* KILMER_L4 13.20 - KILMER_I 230.00 XFMR DISCONNECT BRANCH FROM BUS 218333 TO BUS 218427 CKT 1 /* L.NELSN3 230 L.NELSN3 69 END
Base Case	

Contingency Name	Contingency Definition
JC-P1-2-JCC-230-003	CONTINGENCY 'JC-P1-2-JCC-230-003' /* FUTURE ATLANTIC - OCEANVIEW (X2024) 230 KV DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT X /* ATLANTIC 230.00 OCEANV 230.00 END
JC-P1-2-JCC-230-004	CONTINGENCY 'JC-P1-2-JCC-230-004' /* FUTURE ATLANTIC - OCEANVIEW (Y2025) 230 KV DISCONNECT BRANCH FROM BUS 206286 TO BUS 206300 CKT Y /* ATLANTIC 230.00 OCEANV 230.00 END
JC-P1-2-JCC-230-028	CONTINGENCY 'JC-P1-2-JCC-230-028' /* RARITAN RIVER - RED OAK - SOUTH RIVER JCT(T1034) 230 KV DISCONNECT BRANCH FROM BUS 206305 TO BUS 206314 CKT 1 /* 28RAR RVR 230.00 28RED OAKA 230.00 DISCONNECT BRANCH FROM BUS 206314 TO BUS 206411 CKT 1 /* 28RED OAKA 230.00 28R11RINGA 230.00 . DISCONNECT BUS 206314 /* 28RED OAKA 230.00 DISCONNECT BUS 206363 /* 28RDOAKCT2 18.00 DISCONNECT BUS 206364 /* 28RDOAKCT3 18.00 END
JC-P2-3-JCC-230-26D	CONTINGENCY 'JC-P2-3-JCC-230-26D' /* RARITAN RIVER B146 STUCK BREAKER DISCONNECT BUS 206314 /* RED OAK 230 KV A TAP DISCONNECT BUS 206363 /* RED OAK 230 KV #2 DISCONNECT BUS 206364 /* RED OAK 230 KV #3 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 13 /* RARITAN RIVER #13 230/115 KV TRANSFORMER DISCONNECT BUS 206403 /* WOODBRIDGE GENERATOR END
JC-P2-3-JCC-230-026FT	CONTINGENCY 'JC-P2-3-JCC-230-026FT' /* RARITAN RIVER B3 STUCK BREAKER DISCONNECT BUS 218332 /* KILMER W 230 KV TAP DISCONNECT BUS 218386 /* KILMER L1 DISCONNECT BUS 218387 /* KILMER L3 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 17 /* RARITAN RIVER #17 230/115 KV TRANSFORMER DISCONNECT BUS 206350 /* SAYREVILLE GENERATOR DISCONNECT BUS 206351 /* SAYREVILLE GENERATOR END

Contingency Name	Contingency Definition
JC-P7-1-JCC-230-11A	CONTINGENCY 'JC-P7-1-JCC-230-11A' /* LAKEWOOD - LEISURE V 230 KV LINES DISCONNECT BRANCH FROM BUS 206323 TO BUS 206295 CKT 1 DISCONNECT BRANCH FROM BUS 206323 TO BUS 206296 CKT 1 DISCONNECT BRANCH FROM BUS 206323 TO BUS 206282 CKT 6 DISCONNECT BRANCH FROM BUS 206282 TO BUS 206999 CKT 1 SET BUS 206295 LOAD TO 0 MW DISCONNECT BUS 206999 DISCONNECT BUS 207110 DISCONNECT BUS 207010 DISCONNECT BUS 207111 END
JC-P2-3-JCC-230-026A	CONTINGENCY 'JC-P2-3-JCC-230-026A' /* RARITAN RIVER B143 STUCK BREAKER DISCONNECT BUS 206315 /* RED OAK 230 KV B TAP DISCONNECT BUS 206362 /* RED OAK 230 KV #1 DISCONNECT BUS 206365 /* RED OAK 230 KV #4 DISCONNECT BRANCH FROM BUS 206305 TO BUS 206303 CKT 17 /* RARITAN RIVER #17 230/115 KV TRANSFORMER DISCONNECT BUS 206350 /* SAYREVILLE GENERATOR DISCONNECT BUS 206351 /* SAYREVILLE GENERATOR END
PS_P1-2_I-1023	CONTINGENCY 'PS_P1-2_I-1023' /* TIE LINE GILLET I TO BRIDGEWATER THROUGH MIDDLESEX DISCONNECT BUS 218312 /* GREEN BROOK STATION DISCONNECT BUS 218301 /* MIDDLESEX I DISCONNECT BUS 218333 /* LAKE NELSON BUS I CLOSE LINE FROM BUS 218388 TO BUS 218389 CKT Z /* LAKE NELSON CLOSE LINE FROM BUS 218382 TO BUS 218383 CKT Z /* GREENBROOK END

14 Affected Systems

None