Generation Interconnection

Feasibility Study Report

for

Queue Project AE1-193

KEWANEE

65 MW Capacity / 500 MW Energy

June, 2019

Preface

The intent of the feasibility study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation to the PJM network at a location specified by the Interconnection Customer. The Interconnection Customer may request the interconnection of generation as a capacity resource or as an energy-only resource. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Direct Connections, which are new facilities and/or facilities upgrades needed to connect the generator to the PJM network, and (2) Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system.

In some instances a generator interconnection may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection, may also contribute to the need for the same network reinforcement. Cost allocation rules for network upgrades can be found in PJM Manual 14A, Attachment B. The possibility of sharing the reinforcement costs with other projects may be identified in the feasibility study, but the actual allocation will be deferred until the impact study is performed.

The Interconnection Customer seeking to interconnect a wind or solar generation facility shall maintain meteorological data facilities as well as provide that meteorological data which is required per Schedule H to the Interconnection Service Agreement and Section 8 of Manual 14D.

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.

PJM utilizes manufacturer models to ensure the performance of turbines is properly captured during the simulations performed for stability verification and, where applicable, for compliance with low voltage ride through requirements. Turbine manufacturers provide such models to their customers. The list of manufacturer models PJM has already validated is contained in Attachment B of Manual 14G. Manufacturer models may be updated from time to time, for various reasons such as to reflect changes to the control systems or to more accurately represent the capabilities turbines and controls which are currently available in the field. Additionally, as new turbine models are developed, turbine manufacturers provide such new models which must be used in the conduct of these studies. PJM needs adequate time to evaluate the new models in order to reduce delays to the System Impact Study process timeline for the Interconnection Customer as well as other Interconnection Customers in the study group. Therefore, PJM will require that any Interconnection Customer with a new manufacturer model must supply that model to PJM, along with a $10,000 fully refundable deposit, no later than three (3) months prior to the starting date of the System Impact Study (See Section 4.3 for starting dates) for the Interconnection Request which shall specify the use of the new model.

The Interconnection Customer will be required to submit a completed dynamic model study request form (Attachment B-1 of Manual 14G) in order to document the request for the study.

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.

The conduct of light load analysis as well as Affected Systems as required under the PJM planning process is not performed during the Generation Interconnection Feasibility Study phase of the PJM study process. Additional reinforcement requirements for this Interconnection Request may be defined during the conduct of the System Impact Study.

General

The Interconnection Customer (IC) has proposed a Wind generating facility located in Henry County, Illinois. The installed facilities will have a total capability of 500 MW with 65.0 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is 9/01/2021. This study does not imply a TO commitment to this in-service date.

Queue Number	**AE1-193**
Project Name	KEWANEE
State	None
County	Henry
Transmission Owner	ComEd
MFO	500
MWE	500
MWC	65
Fuel	Wind
Basecase Study Year	2022

Primary Point of Interconnection

Queue Position AE1-193, a 500 MW windfarm facility, proposes to interconnect with the ComEd transmission system at 138kV bus at Kewanee TSS 74. The existing Kewanee substation cannot be expanded to interconnect AE1-193 due to physical limitations. A new 138kV substation Kentville Road TSS 962 is proposed to be built adjacent to the Kewanee substation to interconnect a prior queue position AD1-031. It is proposed to interconnect AE1-193 to TSS 962 Kentville Road. Should AD1-031 not proceed with an Interconnection Service Agreement, AE1-193 would be responsible for the initial build of the new substation.

Cost Summary

The AE1-193 project will be responsible for the following costs:

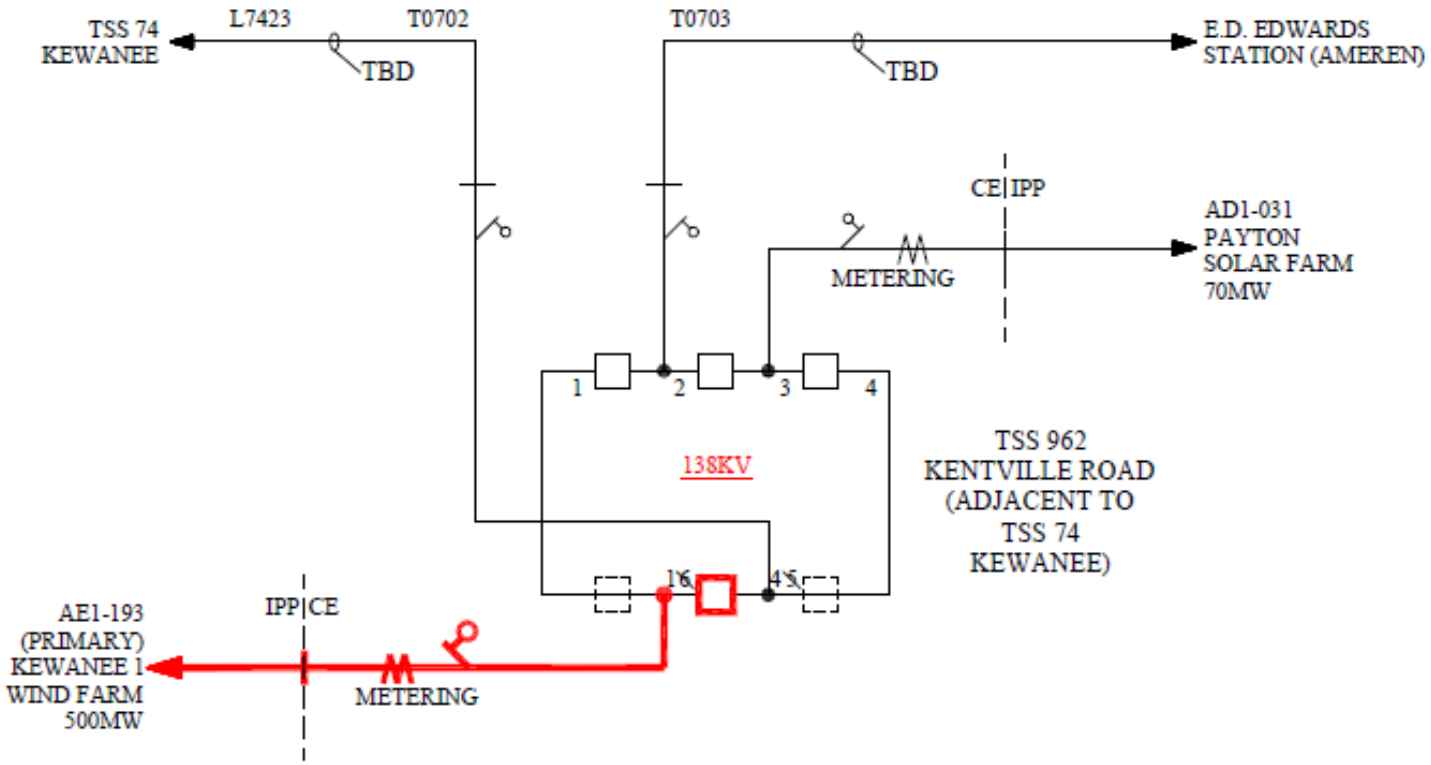
Description	Total Cost
Attachment Facilities	$ 1,000,000
Direct Connection Network Upgrade	$2,500,000
Non Direct Connection Network Upgrades	$ 0
Total Costs	$3,500,000

In addition, the AE1-193 project may be responsible for a contribution to the following costs (see later sections of this report.

Description	Total Cost
System Upgrades	$544,527,560

Cost allocations for these upgrades will be provided in the System Impact Study Report.

AE1-193
PRIMARY POI



Interconnected Transmission Owner Scope of Work

Attachment Facilities

The AE1-193 generator lead will interconnect to the 138kV bus at TSS 962 Kentville Road (see details in Direct Connection section below). The required Attachment Facilities are one 138kV line MOD, one dead-end structure and one revenue-metering as shown in the one-line diagram.

Scope of Work	Cost Estimate
Installation of one 138kV line MOD, one dead-end structure and one set of revenue metering (see notes below on cost estimate)	$ 1,000,000

Direct Connection Cost Estimate

Prior to AE1-193 queue position, a new 138kV Interconnection Substation, Kentville Road TSS 962, would be built, adjacent to TSS 74 Kewanee, under earlier queue position AD1-031 by looping in the 'Kewanee - Edwards' 138kV line 7423. In order to accommodate interconnection of AE1-193, Kentville Road TSS 962 would need to be expanded to create a bus position.

The scope of work includes installation of one 138kV circuit breaker to create a line position to interconnect AE1-193 generator lead, as shown in the one-line diagram below. It should be noted that if the AD1-031 project drops out, then scope of AE1-193 would change.

The Interconnection Customer ("IC") is responsible for constructing all the facilities on the Interconnection Customer side of the Point of Interconnection (POI).

The preliminary cost estimate for Direct Connection Network Upgrade is given in the following tables.

Scope of Work	Cost Estimate
Installation of one 138kV circuit breaker at TSS 962 Kentville Road as described above	$2,500,000
Total Cost Estimate (see notes below on cost estimate)	$2,500,000

Non-Direct Connection Cost Estimate

The integration of the new 345kV Interconnection Substation would require relay/communications/SCADA upgrades at the Loretto TSS 93 and Wilton Center TSS 112. The ComEd cost is given below:

Scope of Work	Cost Estimate
Relay/communications/SCADA upgrades at Loretto TSS 93	$ 1,000,000
Relay/communications/SCADA upgrades at Wilton Center TSS 112	$ 1,000,000
Total Cost Estimate (see notes below on cost estimate)	$ 2,000,000

Schedule

Normally it takes about 24-months to engineer, design, procure material and construct 138kV facilities after ISA/ICSA are signed.

Transmission Owner Analysis

Notes on Cost Estimate:

1) These estimates are Order-of-Magnitude estimates of the costs that ComEd would bill to the customer for this interconnection. These estimates are based on a one-line electrical diagram of the project and the information provided by the Interconnection Customer.

2) There were no site visits performed for these estimates. There may be costs related to specific site related issues that are not identified in these estimates. The site reviews will be performed during the Facilities Study or during detailed engineering.

3) These estimates are not a guarantee of the maximum amount payable by the Interconnection Customer and the actual costs of ComEd's work may differ significantly from these estimates. Interconnection Customer will be responsible for paying actual costs of ComEd's work in accordance with Sections 212.1 and 217 of the PJM Open Access Transmission Tariff.

4) The Interconnection Customer is responsible for all engineering, procurement, testing and construction of all equipment on the Interconnection Customer's side of the POI.

5) These cost estimates do not include cost of acquiring right-of-way for the transmission line and purchasing any additional land, if needed, for the line terminations. The need and cost for acquiring property and associated legal costs will be investigation during Facilities Study for this project.

Interconnection Customer Requirements

Exelon Utilities Transmission Bus Configuration Design Philosophy, ComEd Interconnection Guidelines, and Exelon Utilities Transmission Facility Interconnection Requirements shall apply. They are available on the

PJM website. To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff, the Tariff shall control.

Revenue Metering and SCADA 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.

Primary Point of Interconnection Network Impacts

The Queue Project AE1-193 was evaluated as a 500 MW (Capacity 65 MW) injection at the Kewanee 138 kV substation in the ComEd area. Project AE1-193 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-193 was studied with a commercial probability of 53%. Potential network impacts were as follows:

Summer Peak Load Flow

Generation Deliverability

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

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210070	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	Base Case	single	173.0	91.94	94.65	DC	4.69

Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209762	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P4_012-38-L1206__	breaker	192.0	88.26	97.14	DC	37.85
210917	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	192.0	88.28	97.17	DC	37.88
210918	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	88.2	97.08	DC	37.85
209252	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	49.66	138.12	DC	440.53
210635	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	189.0	94.86	136.38	DC	78.47
210636	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	189.0	89.06	130.58	DC	78.47

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
210637	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	189.0	89.06	130.58	DC	78.47
209411	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	80.81	121.95	DC	204.89
210655	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	COMED_P7_138-L6101___-S_+_138-L7713__R-S-B	tower	449.0	95.27	134.53	DC	176.29
210656	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	449.0	85.41	128.4	DC	193.02
209053	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	336.0	40.26	88.28	DC	161.36
209054	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	336.0	40.26	88.28	DC	161.36
209263	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	71.25	143.6	DC	360.29
209618	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	336.0	40.26	88.28	DC	161.36
210793	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	498.0	97.51	109.81	DC	61.29
210834	271908	LASCO STA; B	CE	270802	LASCO STA; B	CE	1	COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A	tower	498.0	96.01	106.28	DC	51.13
209757	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	70.28	88.15	DC	92.92
208835	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	230.0	95.71	162.65	DC	153.96
208836	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	230.0	95.71	162.65	DC	153.96
209247	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	95.71	162.65	DC	153.96
210698	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	230.0	99.59	121.44	DC	50.25
210699	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	230.0	99.59	121.44	DC	50.25
209028	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P2-2_074_KE-138___1_FSA	bus	268.0	75.54	104.63	DC	77.96
209029	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	268.0	75.54	104.63	DC	77.96
209579	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P4_074-38-L7413__	breaker	268.0	75.54	104.63	DC	77.96
210905	272367	ROCK FALL; R	CE	272366	ROCK FALL; B	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	230.0	88.49	98.07	DC	48.83
208875	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	274.0	76.59	135.45	DC	161.28

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
208876	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	274.0	76.59	135.45	DC	161.28
209312	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P4_074-38-L7413__	breaker	274.0	76.59	135.45	DC	161.28
209759	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	70.28	88.15	DC	92.92
209641	293710	O29	CE	272366	ROCK FALL; B	CE	1	COMED_P4_155-38-L15508_	breaker	498.0	90.34	107.7	DC	86.47
210848	918050	AA1-018 TAP	CE	270769	GOODINGS ;2R	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	93.65	94.52	DC	28.67
209711	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P4_012-38-L1206__	breaker	192.0	99.01	107.89	DC	37.85
210823	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	192.0	98.98	107.87	DC	37.88
210824	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	98.95	107.83	DC	37.85
210904	936290	AD2-038 TAP	CE	918050	AA1-018 TAP	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	87.3	88.17	DC	28.73

Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
819045	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	174.49	175.14	DC	61.6
210854	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	104.37	105.16	DC	138.1
210855	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	103.66	104.54	DC	138.3
820898	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	104.37	105.16	DC	138.1
820899	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	103.66	104.54	DC	138.3
209646	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	112.1	112.31	DC	55.34
209647	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	111.73	111.94	DC	55.62
209648	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	111.65	111.86	DC	55.53
209649	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	111.65	111.85	DC	55.52
209045	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P2-2_116_GG-345R__2_NO_FSA	bus	1802.0	117.12	118.16	DC	41.12

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
209046	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P2-2_116_GG-345R__2_FSA	bus	1802.0	115.91	116.94	DC	41.13
209558	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-L11614_	breaker	1802.0	120.86	121.9	DC	41.26
209559	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-L9801_FSA	breaker	1802.0	117.12	118.16	DC	41.12
209560	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-TR82___	breaker	1802.0	117.09	118.13	DC	41.12
209561	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_112-45-BT4-5__	breaker	1802.0	108.9	110.13	DC	48.75
209502	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	133.44	135.14	DC	60.57
209503	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-2__	breaker	1656.0	129.97	131.71	DC	62.13
209504	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-4__	breaker	1656.0	129.62	131.36	DC	62.16
209358	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	109.97	144.26	DC	94.3
210630	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	185.0	114.32	145.46	DC	57.6
210631	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	185.0	109.86	141.0	DC	57.6
210632	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	185.0	109.86	141.0	DC	57.6
208815	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P2-2_074_KE-138___1_FSA	bus	214.0	124.31	196.26	DC	153.96
208816	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	214.0	124.31	196.26	DC	153.96
209217	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P4_074-38-L7413__	breaker	214.0	124.31	196.26	DC	153.96
209282	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	COMED_P4_133-38-BT1-2__	breaker	229.0	116.35	157.53	DC	94.3
209232	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	COMED_P4_133-38-BT1-2__	breaker	256.0	125.08	180.26	DC	141.27
209653	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P4_012-38-L1206__	breaker	498.0	100.56	110.99	DC	51.92
210794	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	498.0	100.57	111.01	DC	51.98
209213	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	123.77	196.09	DC	360.18
209370	272110	NORMANDY ; B	CE	293710	O29	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	107.71	142.0	DC	94.3
208965	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P2-2_001_LA-138B__1	bus	223.0	124.86	133.82	DC	44.32
209479	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P4_001-38-L0108__	breaker	223.0	124.86	133.82	DC	44.32
209480	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P4_001-38-TR81___	breaker	223.0	124.86	133.82	DC	44.32
209521	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P4_012-38-L1206__	breaker	202.0	120.29	128.1	DC	34.99
210697	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	230.0	102.66	124.51	DC	50.25
210724	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	202.0	120.29	128.1	DC	34.99
208820	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	230.0	115.76	185.89	DC	161.28
208821	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	230.0	115.76	185.89	DC	161.28
209222	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	115.76	185.89	DC	161.28

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
209422	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	COMED_P4_155-38-L15508_	breaker	426.0	114.52	136.64	DC	94.2
208810	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	230.0	143.45	207.79	DC	147.99
208811	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	230.0	143.45	207.79	DC	147.99
209207	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	143.45	207.79	DC	147.99
209442	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	135.93	137.39	DC	42.53
209443	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	133.99	135.58	DC	42.74
209444	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	134.71	136.17	DC	42.73
209445	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	134.71	136.17	DC	42.73
209446	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	134.7	136.16	DC	42.72
819178	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	135.93	137.39	DC	42.53
819179	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	133.99	135.58	DC	42.74
819180	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	134.71	136.17	DC	42.73
819181	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	134.71	136.17	DC	42.73
819182	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	134.7	136.16	DC	42.72
208845	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	331.0	115.55	162.03	DC	153.84
208846	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	331.0	115.55	162.03	DC	153.84
209267	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P4_074-38-L7413__	breaker	331.0	115.55	162.03	DC	153.84
209078	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P2-2_155_NE-138B__4	bus	275.0	101.83	109.38	DC	45.98
209595	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P4_155-38-TR81___	breaker	264.0	111.11	118.84	DC	45.22
209596	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P4_155-38-TR84___	breaker	264.0	106.08	113.93	DC	45.98
210548	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	275.0	184.18	223.1	DC	107.01
819145	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	AEP_P4_#3128_05EUGENE 345_A2	breaker	1466.0	144.31	145.69	DC	44.24
208825	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	214.0	109.97	181.91	DC	153.96
208826	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	214.0	109.97	181.91	DC	153.96
209227	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P4_074-38-L7413__	breaker	214.0	109.97	181.91	DC	153.96
210564	930740	AB1-122 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA	tower	1195.0	132.15	133.61	DC	38.78
210565	930740	AB1-122 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P7_345-L0301__B-S_+_345-L9801__R-S_FSA	tower	1195.0	127.49	128.96	DC	38.83
208890	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P2-2_001_LA-138B__1	bus	223.0	158.19	167.15	DC	44.32
209332	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P4_001-38-TR81___	breaker	223.0	158.19	167.15	DC	44.32
209333	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P4_001-38-L0108__	breaker	223.0	158.19	167.15	DC	44.32
210620	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	230.0	131.68	153.53	DC	50.25

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
210621	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	230.0	131.68	153.53	DC	50.25

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	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
819869	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P1-2_#695A	operation	1409.0	171.01	171.68	DC	62.52
819875	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	Base Case	operation	1409.0	111.61	112.24	DC	34.83
210356	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P1-2_#695A	operation	1399.0	111.61	111.81	DC	55.48
210435	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P1-2_345-L11622_R-S	operation	1802.0	103.63	104.59	DC	37.79
210440	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	Base Case	operation	1560.0	96.66	97.66	DC	34.27
210239	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P1-2_345-L15501_B-R	operation	1656.0	129.59	131.33	DC	62.16
210240	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	Base Case	operation	1334.0	107.0	108.5	DC	44.01
210034	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	COMED_P1-2_138-L13304_R-R	operation	264.0	114.04	149.79	DC	94.37
210036	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	Base Case	operation	208.0	105.72	143.35	DC	78.27
210094	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P2-1_074-L6101___	operation	174.0	114.9	144.72	DC	51.88
210098	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	Base Case	operation	174.0	98.38	109.13	DC	41.48
209843	271655	HENNEEPIN; T	CE	348918	4HENNEPIN S	AMIL	1	271838	operation	160.0	178.67	273.37	DC	151.53
210450	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	Base Case	operation	142.0	91.5	102.01	DC	33.11
210451	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P1-2_138-L1206__R-S-A	operation	184.0	91.6	100.87	DC	37.85
209853	271835	KEWANEE ;23	CE	271655	HENNEEPIN; T	CE	1	271838	operation	195.0	144.62	240.86	DC	187.67
209858	271835	KEWANEE ;23	CE	271655	HENNEEPIN; T	CE	1	Base Case	operation	190.0	55.49	83.09	DC	52.43
209932	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	271838	operation	214.0	114.61	185.63	DC	151.99
209937	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	Base Case	operation	173.0	105.12	142.49	DC	64.65
209950	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	55.04	153.16	DC	440.54
209952	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	Base Case	operation	351.0	25.4	134.5	DC	382.92

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
210000	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	COMED_P1-2_138-L13304_R-R	operation	214.0	123.86	167.96	DC	94.37
210002	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	Base Case	operation	173.0	107.59	152.83	DC	78.27
209938	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	COMED_P1-2_138-L13304_R-R	operation	246.0	129.65	187.1	DC	141.33
209940	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	Base Case	operation	190.0	117.76	180.82	DC	119.81
210161	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P1-2_138-L1352___-S	operation	189.0	84.41	119.39	DC	66.11
210166	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	Base Case	operation	159.0	67.98	103.22	DC	56.03
210086	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	Base Case	operation	351.0	81.83	131.93	DC	175.84
210087	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	89.42	135.06	DC	204.94
210145	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	Base Case	operation	351.0	83.94	122.68	DC	135.99
210146	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	271837	operation	449.0	68.97	116.15	DC	211.86
209974	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	78.93	159.18	DC	360.31
209976	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	Base Case	operation	351.0	59.85	148.72	DC	311.94
210288	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	271838	operation	317.0	38.78	89.33	DC	160.24
210234	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P1-2_138-L1206__R-S-A	operation	442.0	113.03	124.77	DC	51.92
210236	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	Base Case	operation	351.0	123.11	128.82	DC	44.3
209906	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	Base Case	operation	351.0	125.66	214.5	DC	311.83
209907	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	137.17	217.39	DC	360.21
210150	271908	LASCO STA; B	CE	271986	MAZON ; B	CE	1	COMED_P1-3_TR81_LASCO_B-S	operation	223.0	139.12	144.85	DC	28.23
210152	271987	MAZON ; R	CE	271187	CHANNAHON ; R	CE	1	COMED_P1-2_138-L0112__B-S	operation	223.0	133.12	141.01	DC	39.01
210153	271987	MAZON ; R	CE	271187	CHANNAHON ; R	CE	1	Base Case	operation	173.0	130.18	138.62	DC	32.4
210494	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	68.15	86.34	DC	87.31
210060	272110	NORMANDY ; B	CE	293710	O29	CE	1	COMED_P1-2_138-L13304_R-R	operation	264.0	111.69	147.44	DC	94.37
210062	272110	NORMANDY ; B	CE	293710	O29	CE	1	Base Case	operation	208.0	102.74	140.37	DC	78.27
209994	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	271838	operation	223.0	89.44	157.6	DC	151.99
209999	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	Base Case	operation	173.0	78.65	116.02	DC	64.65
210396	272124	ESS J339 ; B	CE	271336	DRESDEN ; B	CE	1	COMED_P1-3_TR81_LASCO_B-S	operation	268.0	107.16	112.11	DC	29.26
210283	272125	ESS J339 ; R	CE	271337	DRESDEN ; R	CE	1	COMED_P1-2_138-L0112__B-S	operation	268.0	114.87	121.43	DC	38.78

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
210284	272125	ESS J339 ; R	CE	271337	DRESDEN ; R	CE	1	Base Case	operation	210.0	112.53	119.47	DC	32.16
210186	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P1-2_138-L0112__B-S	operation	223.0	123.5	132.49	DC	44.49
210187	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	Base Case	operation	173.0	110.85	120.24	DC	36.05
210226	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P1-2_138-L1206__R-S-A	operation	202.0	120.19	128.0	DC	34.99
209916	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	271838	operation	214.0	118.51	193.35	DC	160.15
209920	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	Base Case	operation	184.0	100.97	139.51	DC	70.91
210291	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	271838	operation	268.0	75.25	104.12	DC	77.38
210272	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	COMED_P1-2_138-L15508_R-R	operation	401.0	96.67	114.17	DC	70.17
210276	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	Base Case	operation	351.0	76.94	93.71	DC	58.86
209911	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	223.0	178.9	221.99	DC	96.1
209915	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	Base Case	operation	173.0	142.59	179.22	DC	63.37
209921	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	271838	operation	194.0	101.69	184.24	DC	160.15
209923	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	Base Case	operation	155.0	87.27	133.02	DC	70.91
210177	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	134.7	136.16	DC	42.72
820039	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	134.7	136.16	DC	42.72
210495	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	68.12	86.32	DC	87.31
209968	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	271838	operation	283.0	127.16	180.82	DC	151.87
209973	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	Base Case	operation	238.0	122.69	149.8	DC	64.53
210331	293710	O29	CE	272366	ROCK FALL; B	CE	1	COMED_P1-2_138-L15508_R-R	operation	449.0	91.76	109.03	DC	77.53
210334	293710	O29	CE	272366	ROCK FALL; B	CE	1	Base Case	operation	351.0	86.96	105.73	DC	65.89
210397	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P2-1_155-L15518__	operation	264.0	101.68	109.75	DC	47.21
820033	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	AEP_P1-2_#286	operation	1466.0	138.66	140.05	DC	44.62
820034	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	Base Case	operation	1334.0	122.74	123.97	DC	36.05
820508	348885	7BUNSONVILLE	AMIL	243221	05EUGENE	AEP	1	AEP_P1-2_#8907	operation	1793.0	101.7	102.49	DC	42.05
210183	348935	4OGLESBY MN	AMIL	272189	OGLESBY ; T	CE	1	271837	operation	202.0	95.57	122.76	DC	54.92
209962	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	271838	operation	214.0	100.31	171.33	DC	151.99
209967	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	Base Case	operation	173.0	87.38	124.75	DC	64.65
210303	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	Base Case	operation	142.0	105.21	115.72	DC	33.11
210304	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P1-2_138-L1206__R-S-A	operation	184.0	102.82	112.09	DC	37.85

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
210065	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P1-2_138-L0112__B-S	operation	223.0	156.91	165.91	DC	44.49
210066	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	Base Case	operation	173.0	153.01	162.4	DC	36.05

System Reinforcements

ID	Index	Facility	Upgrade Description	Cost
209358	27	ANNAWAN; R 138.0 kV - NORMANDY ; B 138.0 kV Ckt 1	CE Description : Line conductor upgrade, station conductor upgrade, new line wave trap & line relay package upgrade. Time Estimate : 36 Months Cost : $27,700,000	$27,700,000
209267,208845,208846	39	O09 OP1 138 138.0 kV - ROCK FALL; R 138.0 kV Ckt 1	CE Description : No Violation. The ALDR rating is 573 MVA.	$0
209641	18	O29 138.0 kV - ROCK FALL; B 138.0 kV Ckt 1	CE Description : No Violation. The ALDR rating is 573 MVA.	$0
209232	31	KEWANEE ;12 138.0 kV - KEWANEE ;11 138.0 kV Ckt 1	CE Description : Upgrade station conductor at Kewanee substation. Additional pole work may be required. This cost is not included in this estimate. A final cost will be determined during the Facilities Study phase. Time Estimate : 24 Months Cost : $500,000	$500,000
209213	32	KEWANEE ;21 138.0 kV - KEWANEE ;13 138.0 kV Ckt 1		
209422	36	ROCK FALL; B 138.0 kV - NELSON ; B 138.0 kV Ckt 1	CE Description : Line conductor upgrade, station conductor upgrade, relay package upgrade. (Note that there may be additional 138kV line tower costs as a result of this upgrade. This estimate does not include potential tower work. The tower costs will be determined during the Facility Study). Time Estimate : 36 Months Cost : $4,500,000	$4,500,000
209312,208875,208876	16	TOULON ; R 138.0 kV - POWERTON ; 138.0 kV Ckt 1	CE Description : Line conductor upgrade, upgrade 2-138kV disconnect switches. Time Estimate : 36 Months Cost : $41,200,000	$41,200,000
208965,209479,209480,210697,210698,210699	13	OGLESBY ; T 138.0 kV - AD2-066 TAP 138.0 kV Ckt 1	CE Description : Line conductor upgrade. (Note that there may be additional 138kV line tower costs as a result of this upgrade. This estimate does not include potential tower work. The tower costs will be determined during the Facility Study). Time Estimate : 36 Months Cost : $28,200,000	$28,200,000

ID	Index	Facility	Upgrade Description	Cost
209521,210724	34	OGLESBY ; T 138.0 kV - 4OGLESBY MN 138.0 kV Ckt 1	**CE** Description : Line conductor upgrade. (Note that there may be additional 138kV line tower costs as a result of this upgrade. This estimate does not include potential tower work. The tower costs will be determined during the Facility Study). Time Estimate : 36 Months Cost : $17,300,000 **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$17,300,000
209332,209333,210070,208890,210620,210621	1	AD2-066 TAP 138.0 kV - MAZON ; R 138.0 kV Ckt 1	**CE** Description : Line reconductoring required. Note, the estimate provided does not include potential transmission tower pole upgrades. This cost will be determined during the Facilities Studies. Time Estimate : 24-30 Months Cost : $22,900,000	$22,900,000
210632,210630,210631	28	CRESCENT ; R 138.0 kV - OGLESBY ; T 138.0 kV Ckt 1	**CE** Description : Mitigate sag limits (28.2 miles). Time Estimate : 30 Months Cost : $10,100,000	$10,100,000
208820,208821,209222	35	POWERTON ; 138.0 kV - POWERTON ;RT 138.0 kV Ckt 1	**CE** Description : The post contingency flow exceeds the rating therefore an upgrade is required. The upgrade will be to re-conductor the line along with upgraded line disconnect switches, line trap and station conductor. Note, the estimate provided does not include potential transmission tower pole upgrades. This cost will be determined during the Facilities Studies. Time Estimate : 24-30 Months Cost : $13,200,000	$13,200,000
209579,209028,209029	14	POWERTON ;RT 138.0 kV - 4HUFF 138.0 kV Ckt 1	**CE** Description : No Violation. The existing ALDR rating is 322 MVA **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$0
210834	10	LASCO STA; B 138.0 kV - LASCO STA; B 345.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 572 MVA.	$0

ID	Index	Facility	Upgrade Description	Cost
209504,209502,209503	26	NELSON ; B 345.0 kV - ELECT JCT; B 345.0 kV Ckt 1	**CE** Description : Line & station conductor upgrades, 2-345kV disconnect switch upgrades, 1-345kV circuit breaker upgrade.(Note that there may be additional 345kV line tower costs as a result of this upgrade. This estimate does not include potential tower work. The tower costs will be determined during the Facility Study). Time Estimate : 36 Months Cost : $74,200,000	$74,200,000
208835,208836,209247	12	NORMANDY ; R 138.0 kV - O09 OP1 138 138.0 kV Ckt 1	**CE** Description : The post contingency flow exceeds the rating therefore an upgrade is required. The upgrade will be to re-conductor a portion of the line. Tower work may be required. The scope of towers and cost to be determined during the Facilities Study phase. Time Estimate : 24-30 Months Cost : $13,500,000 **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$13,500,000
208825,208826,209227	42	4KEEMIN 138.0 kV - NORMANDY ; R 138.0 kV Ckt 1		
209370	33	NORMANDY ; B 138.0 kV - O29 138.0 kV Ckt 1		
210793,210794,209653	9	KICKAPOO ; B 138.0 kV - LASCO STA; B 138.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 572 MVA.	$0
210635,210636,210637	4	KEWANEE ;12 138.0 kV - 4EDWARDS3 138.0 kV Ckt 1	**CE** Description : Mitigate sag limits. Time Estimate : 30 Months Cost : $42,700,000 **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$42,700,000
208816,209217,208815	29	KEWANEE ;23 138.0 kV - 4KEEMIN 138.0 kV Ckt 1	**CE** Description : ComEd 138kV L7411: Upgrade 138kV circuit breaker at station & station conductor upgrade. Time Estimate : 36 Months Cost : $3,200,000 **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$3,200,000
209618,209053,209054	7	KEWANEE ;22 138.0 kV - TOULON ; R 138.0 kV Ckt 1	**CE** Description : No Violation. The SLD rating is 336 MVA.	$0

ID	Index	Facility	Upgrade Description	Cost
209282	30	KEWANEE ;11 138.0 kV - ANNAWAN; R 138.0 kV Ckt 1	**CE** Description : Line conductor upgrades, station conductor work, upgrade line trap and new relay package. Time Estimate : 30 Months Cost : $7,500,000	$7,500,000
209252	3	KEWANEE ;23 138.0 kV - KEWANEE ;22 138.0 kV Ckt 1	**CE** Description : Construct a new Kewanee Substation Time Estimate : 60 Months Cost : $60,000,000	$60,00,000
209411	5	KEWANEE ;13 138.0 kV - KEWANEE ;12 138.0 kV Ckt 1		
209263	8	KEWANEE ;22 138.0 kV - KEWANEE ;21 138.0 kV Ckt 1		
209442,209443,209444,209445,209446,819178,819179,819180,819181,819182	38	UNIV PK N;RP 345.0 kV - 05OLIVE 345.0 kV Ckt 1	**CE** Description : Line sag mitigation. Note that there may be additional 345kV line tower costs as a result of this upgrade. This estimate does not include potential tower work. The tower costs will be determined during the Facility Study Time Estimate : 24-30 Months Cost : $13,800,000 **AEP** Description : 1) A Sag Study will be required on the 40.64 miles of ACSR/PE 1414 62/19 conductor to mitigate the overload. The new ratings after sag study will be: S/N: 971 MVA, S/E: 1419 MVA, Depending on the sag study results, the cost for this upgrade is expected to be between $162,560 (no remediation required, just sag study) and $81.28 million (complete line Reconductor/rebuild). Time Estimate: a) Sag Study: 6-12 months b) Rebuild: The standard time required for construction differs from state to state. An approximate construction time would be 24 to 36 months after signing an interconnection agreement. Time Estimate : 6-12 Months Cost : $337,560	$ 14,137,560
820898,820899,210854,210855	23	WILTON ; 765.0 kV - 05DUMONT 765.0 kV Ckt 1	**CE** Description : No Violation. The SLD rating is 4802 MVA. **AEP** Description : 1) Replace Dumont Circuit Breaker [Breaker (3000A) Non oil - Dumont] Time Estimate : 24-36 Months Cost : $3,000,000	$3,000,000
210548,209595,209596,209078	40	O29 138.0 kV - NELSON ;RT 138.0 kV Ckt 1	**CE** Description : Reconductor the line. Additional tower upgrades and replacement work may be required. This will increase the estimate significantly if required. The estimate given does not include this work. The cost and scope for tower work will be determined during the Facility Study. Time Estimate : 30-36 Months Cost : $28,700,000	$28,700,000

ID	Index	Facility	Upgrade Description	Cost
209046,209045,209558,209559,209560,209561	25	**GOODINGS ;4B 345.0 kV - GOODINGS ;3B 345.0 kV Ckt 1**	**CE** Description : Upgrade 1-345kV cicruit breaker & associated equipment, station conductor upgrade required. Time Estimate : 24-30 Months Cost : $ 3,600,000	$3,600,000
819045	22	**17STILLWELL 345.0 kV - 05DUMONT 345.0 kV Ckt 1**	**AEP** Description : 1) Rebuild / reconductor 8.58 miles of conductor (ACSR ~ 954 ~ 45/7 ~ RAIL - Conductor section 1), Estimated Cost : $17.16 million . 2) Replace Dumont Wavetrap , Estimated Cost : $200k. 3) An Engineering study will need to be conducted to determine if the CT Thermal Limits can be adjusted to mitigate the overload. Estimated Cost: $25,000. 4) Replace two Dumont Breakers , Estimated Cost: $2.4 million 5)Replace 11 Dumont risers (11 Sub cond 2-1700 kcm AAC 61 Str.- Dumont) , Estimated Cost : $ 175,000 6) Replace four 3000 A Dumont Switches , Estimated Cost : $2,000,000 7) An Engineering study will need to be conducted to determine if the CT Thermal Limit settings can be adjusted to mitigate the overload. Estimated Cost: $25,000. New relay package will be required if the settings cannot be adjusted, Estimated Cost: $600,000. Time Estimate : 24-36 Months Cost : $21,985,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$21,985,000
210564,210565	43	**AB1-122 TAP 345.0 kV - DRESDEN ; R 345.0 kV Ckt 1**	**CE** Description : Mitigate sag limit (91.7 miles) Time Estimate : 24-30 Months Cost : $ 31,500,000	$31,500,000
208810,208811,209207	37	**ROCK FALL; R 138.0 kV - NELSON ; R 138.0 kV Ckt 1**	**CE** Description : Replace 1-138kV circuit breaker and current transformers, upgrade station conductor, upgrade 1-138kV motor operated disconnect switch & 2-138kV line relay schemes. Note, the estimate provided does not include potential transmission tower pole upgrades. This cost will be determined during the Facilities Studies. Time Estimate : 30 Months Cost : $ 4,200,000	$4,200,000
210848	19	**AA1-018 TAP 345.0 kV - GOODINGS ;2R 345.0 kV Ckt 1**	**CE** Description : No Violation. The ALDR rating is 1718 MVA.	$0
210824,210823,209711	20	**AC1-168 TAP 138.0 kV - STREATOR ; 138.0 kV Ckt 1**	**CE** Description : No Violation. The ALDR rating is 265 MVA.	$0
210905	15	**ROCK FALL; R 138.0 kV - ROCK FALL; B 138.0 kV Ckt 1**	**CE** Description : No Violation. The ALDR rating is 264 MVA.	$0

ID	Index	Facility	Upgrade Description	Cost
819145	41	7CASEY 345.0 kV - 05SULLIVAN 345.0 kV Ckt 1	**AEP** Description : 1) Rebuild / reconductor 0.6 miles of conductor (ACAR ~ 1024.5 ~ 30/7 ~ RAIL1 - Conductor section 5), estimated cost : $1.2 million 2) Rebuild / reconductor 1.44 miles of conductor (ACSR/PE ~ 1414 ~ 62/19 ~ - Conductor section 2), estimated cost : $2.88 million. 3) Replace two Sullivan 3000A Wavetraps , Estimated cost : $225, 000. Time Estimate : 24-36 Months Cost : $4,305,000 **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$4,305,000
209762,210917,210918	2	HENNEEPIN; T 138.0 kV - AC1-168 TAP 138.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 322 MVA.	$0
210656,210655	6	KEWANEE ;13 138.0 kV - 4KEWANEE N 138.0 kV Ckt Z1	**CE** Description : Replace 1113 ACSR station conductor. Assume replaced with 3" tubular bus. Assuming that this upgrade is achievable in the field, the work at TSS 74 will require significant outages and temporary switching configurations. Time Estimate : 30 Months Cost : $ 50,000,000 **AMIL** Description : The external (i.e. Non-PJM) Transmission Owner, AMIL, will not evaluate this violation until the impact study phase.	$50,000,000
210904	21	AD2-038 TAP 345.0 kV - AA1-018 TAP 345.0 kV Ckt 1	**CE** Description : No Violation. Facility loading does not exceed 100%.	$0
209757	11	NELSON ; R 138.0 kV - NELSON ;2M 138.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 598 MVA.	$0
209759	17	NELSON ;2M 138.0 kV - NELSON ; B 345.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 598 MVA.	$0
209648,209649,209646,209647	24	E FRANKFO; B 345.0 kV - CRETE EC ;BP 345.0 kV Ckt 1	**CE** Description : Line conductoring upgrade. Note that there may be additional 345kV line tower costs as a result of this upgrade. This estimate does not include potential tower work. The tower costs will be determined during the Facility Study. Time Estimate : 30 Months Cost : $ 14,400,000	$14,400,000
			TOTAL COST	**$542,527,560**

Flow Gate Details

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

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
209333	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P4_001-38-L0108__	breaker	223.0	158.19	167.15	DC	44.32

Bus #	Bus	MW Impact
274832	U4-027	7.15
274847	GR RIDGE ;BU	0.82
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.3
274871	GR RIDGE ;2U	1.04
293061	N-015 E	21.37
293771	O-035 E	7.88
294392	P-010 E	27.14
294401	BSHIL;1U E	7.09
294410	BSHIL;2U E	7.09
916211	Z1-072 E	5.96
917451	Z2-081	0.35
919621	AA2-039 C	1.73
919622	AA2-039 E	11.57
925581	AC1-033 C	1.16
925582	AC1-033 E	7.77
926821	AC1-168 C O1	1.69
926822	AC1-168 E O1	11.35
927201	AC1-214 C O1	2.53
927202	AC1-214 E O1	8.04
934051	AD1-031 C O1	2.36
934052	AD1-031 E O1	3.85
936511	AD2-066 C O1	44.66
936512	AD2-066 E O1	29.77
939631	AE1-193 C O1	5.76
939632	AE1-193 E O1	38.56
939681	AE1-198 C O1	17.11
939682	AE1-198 E O1	14.54
953201	J715 C	3.38
953202	J715 E	18.26
954201	J887 C	0.99
954202	J887 E	5.37
990901	L-005 E	9.6
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.8
CBM-S2	CBM-S2	0.21
CBM-W1	CBM-W1	1.35
CBM-W2	CBM-W2	12.0
CIN	CIN	0.46
CPLE	CPLE	0.07
DEARBORN	DEARBORN	0.09

Bus #	Bus	MW Impact
G-007A	G-007A	0.05
IPL	IPL	0.24
LGEE	LGEE	0.07
MEC	MEC	4.04
NYISO	NYISO	0.05
O-066A	O-066A	0.02
VFT	VFT	0.12
Z1-043	Z1-043	42.98

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
210918	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	88.2	97.08	DC	37.85

Bus #	Bus	MW Impact
274832	U4-027	6.13
293771	O-035 E	5.44
294401	BSHIL;1U E	6.05
294410	BSHIL;2U E	6.05
916211	Z1-072 E	4.11
919621	AA2-039 C	1.47
919622	AA2-039 E	9.87
925581	AC1-033 C	0.99
925582	AC1-033 E	6.63
927201	AC1-214 C O1	1.75
927202	AC1-214 E O1	5.55
934051	AD1-031 C O1	2.01
934052	AD1-031 E O1	3.28
936511	AD2-066 C O1	8.64
936512	AD2-066 E O1	5.76
939631	AE1-193 C O1	4.92
939632	AE1-193 E O1	32.93
939681	AE1-198 C O1	14.61
939682	AE1-198 E O1	12.41
953201	J715 C	1.88
953202	J715 E	10.15
954201	J887 C	0.84
954202	J887 E	4.54
990901	L-005 E	8.19
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.71
CBM-S2	CBM-S2	0.19
CBM-W1	CBM-W1	1.69
CBM-W2	CBM-W2	10.8
CIN	CIN	0.36
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.08
G-007A	G-007A	0.04
IPL	IPL	0.19
LGEE	LGEE	0.06
MEC	MEC	4.0
NYISO	NYISO	0.05
O-066A	O-066A	0.02
VFT	VFT	0.12
WEC	WEC	0.05

Bus #	Bus	MW Impact
Z1-043	Z1-043	40.82

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209252	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	49.66	138.12	DC	440.53

Bus #	Bus	MW Impact
293513	O-009 C1	2.77
293514	O-009 C2	1.4
293515	O-009 C3	1.55
293516	O-009 E1	72.28
293517	O-009 E2	36.71
293518	O-009 E3	40.43
926821	AC1-168 C O1	1.5
926822	AC1-168 E O1	10.1
934051	AD1-031 C O1	23.44
934052	AD1-031 E O1	38.24
939631	AE1-193 C O1	57.27
939632	AE1-193 E O1	383.26
939681	AE1-198 C O1	170.04
939682	AE1-198 E O1	144.49
953201	J715 C	1.5
953202	J715 E	8.11
BAYOU	BAYOU	0.21
BIG_CAJUN1	BIG_CAJUN1	0.31
BIG_CAJUN2	BIG_CAJUN2	0.62
BLUEG	BLUEG	0.1
CALDERWOOD	CALDERWOOD	0.05
CANNELTON	CANNELTON	0.02
CARR	CARR	0.0
CATAWBA	CATAWBA	0.02
CHEOAH	CHEOAH	0.04
CHILHOWEE	CHILHOWEE	0.02
CHOCTAW	CHOCTAW	0.18
COFFEEN	COFFEEN	0.09
COTTONWOOD	COTTONWOOD	0.87
DUCKCREEK	DUCKCREEK	0.55
EDWARDS	EDWARDS	0.05
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.19
G-007	G-007	0.01
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.06
MECS	MECS	0.16
NEWTON	NEWTON	0.16
O-066	O-066	0.03
PRAIRIE	PRAIRIE	0.63
RENSSELAER	RENSSELAER	0.0

Bus #	Bus	MW Impact
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.03
TATANKA	TATANKA	0.35
TILTON	TILTON	0.01
TRIMBLE	TRIMBLE	0.01
TVA	TVA	0.23
UNIONPOWER	UNIONPOWER	0.14
Z1-043	Z1-043	39.42

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210635	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	189.0	94.86	136.38	DC	78.47

Bus #	Bus	MW Impact
274832	U4-027	15.76
274848	CAMPGROVE;RU	0.63
274849	CRESCENT ;1U	0.19
274851	PROVIDENC;RU	0.29
274877	BISHOP HL;1U	0.48
274878	BISHOP HL;2U	0.48
293771	O-035 E	7.64
294401	BSHIL;1U E	12.57
294410	BSHIL;2U E	12.57
916211	Z1-072 E	5.78
919621	AA2-039 C	3.06
919622	AA2-039 E	20.51
925581	AC1-033 C	2.06
925582	AC1-033 E	13.82
926821	AC1-168 C O1	0.72
926822	AC1-168 E O1	4.84
926841	AC1-171 C O1	0.64
926842	AC1-171 E O1	4.3
927201	AC1-214 C O1	2.45
927202	AC1-214 E O1	7.8
934051	AD1-031 C O1	4.17
934052	AD1-031 E O1	6.81
939631	AE1-193 C O1	10.2
939632	AE1-193 E O1	68.27
939681	AE1-198 C O1	30.29
939682	AE1-198 E O1	25.74
953201	J715 C	1.13
953202	J715 E	6.11
954201	J887 C	1.84
954202	J887 E	9.94
990901	L-005 E	16.45
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.05
CBM-S2	CBM-S2	0.02
CBM-W2	CBM-W2	0.35
CIN	CIN	0.09
CPLE	CPLE	0.01
DEARBORN	DEARBORN	0.0
DUCKCREEK	DUCKCREEK	1.24
EDWARDS	EDWARDS	1.91

Bus #	Bus	MW Impact
G-007A	G-007A	0.02
IPL	IPL	0.05
LGEE	LGEE	0.01
MEC	MEC	0.16
NYISO	NYISO	0.02
O-066A	O-066A	0.01
VFT	VFT	0.05
Z1-043	Z1-043	20.32

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209411	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	80.81	121.95	DC	204.89

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.66
274877	BISHOP HL;1U	1.26
274878	BISHOP HL;2U	1.26
293513	O-009 C1	1.29
293514	O-009 C2	0.65
293515	O-009 C3	0.72
293516	O-009 E1	33.61
293517	O-009 E2	17.07
293518	O-009 E3	18.8
294401	BSHIL;1U E	32.84
294410	BSHIL;2U E	32.84
919621	AA2-039 C	8.0
919622	AA2-039 E	53.56
926821	AC1-168 C O1	1.05
926822	AC1-168 E O1	7.05
926841	AC1-171 C O1	1.82
926842	AC1-171 E O1	12.15
934051	AD1-031 C O1	10.9
934052	AD1-031 E O1	17.78
939631	AE1-193 C O1	26.64
939632	AE1-193 E O1	178.25
939681	AE1-198 C O1	79.09
939682	AE1-198 E O1	67.2
954201	J887 C	4.81
954202	J887 E	26.03
990901	L-005 E	43.31
CBM-N	CBM-N	0.06
CBM-S1	CBM-S1	0.51
CBM-S2	CBM-S2	0.19
CBM-W2	CBM-W2	7.03
CIN	CIN	0.54
CPLE	CPLE	0.07
EDWARDS	EDWARDS	0.24
FARMERCITY	FARMERCITY	0.04
G-007A	G-007A	0.19
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.04
NYISO	NYISO	0.26
O-066A	O-066A	0.09
TATANKA	TATANKA	0.28

Bus #	Bus	MW Impact
VFT	VFT	0.52
Z1-043	Z1-043	28.97

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210655	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	COMED_P7_138-L6101___-S_+_138-L7713__R-S-B	tower	449.0	95.27	134.53	DC	176.29

Bus #	Bus	MW Impact
274832	U4-027	28.1
274848	CAMPGROVE;RU	1.41
274849	CRESCENT ;1U	0.52
274851	PROVIDENC;RU	0.8
274877	BISHOP HL;1U	1.08
274878	BISHOP HL;2U	1.08
293513	O-009 C1	0.44
293514	O-009 C2	0.22
293515	O-009 C3	0.25
293516	O-009 E1	11.49
293517	O-009 E2	5.84
293518	O-009 E3	6.43
293715	O-029 E	5.27
293716	O-029 E	2.89
293717	O-029 E	2.66
293771	O-035 E	20.89
294401	BSHIL;1U E	28.25
294410	BSHIL;2U E	28.25
916211	Z1-072 E	15.81
919621	AA2-039 C	6.89
919622	AA2-039 E	46.08
925581	AC1-033 C	4.63
925582	AC1-033 E	30.97
926841	AC1-171 C O1	1.41
926842	AC1-171 E O1	9.43
927201	AC1-214 C O1	6.7
927202	AC1-214 E O1	21.31
934051	AD1-031 C O1	9.38
934052	AD1-031 E O1	15.3
939631	AE1-193 C O1	22.92
939632	AE1-193 E O1	153.37
939681	AE1-198 C O1	68.05
939682	AE1-198 E O1	57.82
990901	L-005 E	36.88
BAYOU	BAYOU	0.18
BIG_CAJUN1	BIG_CAJUN1	0.27
BIG_CAJUN2	BIG_CAJUN2	0.54
BLUEG	BLUEG	0.5
CALDERWOOD	CALDERWOOD	0.07
CANNELTON	CANNELTON	0.04

Bus #	Bus	MW Impact
CARR	CARR	0.03
CATAWBA	CATAWBA	0.04
CBM-W1	CBM-W1	0.45
CHEOAH	CHEOAH	0.06
CHILHOWEE	CHILHOWEE	0.02
CHOCTAW	CHOCTAW	0.17
COFFEEN	COFFEEN	0.13
COTTONWOOD	COTTONWOOD	0.72
DEARBORN	DEARBORN	0.04
DUCKCREEK	DUCKCREEK	1.12
EDWARDS	EDWARDS	0.33
ELMERSMITH	ELMERSMITH	0.07
FARMERCITY	FARMERCITY	0.07
G-007	G-007	0.08
GIBSON	GIBSON	0.03
HAMLET	HAMLET	0.12
NEWTON	NEWTON	0.26
O-066	O-066	0.28
PRAIRIE	PRAIRIE	0.61
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.02
SMITHLAND	SMITHLAND	0.04
TILTON	TILTON	0.13
TRIMBLE	TRIMBLE	0.05
TVA	TVA	0.26
UNIONPOWER	UNIONPOWER	0.13
WEC	WEC	0.35

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209618	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	336.0	40.26	88.28	DC	161.36

Bus #	Bus	MW Impact
274877	BISHOP HL;1U	0.99
274878	BISHOP HL;2U	0.99
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.94
293517	O-009 E2	5.05
293518	O-009 E3	5.56
293771	O-035 E	3.85
294401	BSHIL;1U E	25.84
294410	BSHIL;2U E	25.84
916211	Z1-072 E	2.91
919621	AA2-039 C	6.3
919622	AA2-039 E	42.16
926821	AC1-168 C O1	0.81
926822	AC1-168 E O1	5.44
927201	AC1-214 C O1	1.24
927202	AC1-214 E O1	3.93
934051	AD1-031 C O1	8.58
934052	AD1-031 E O1	14.01
939631	AE1-193 C O1	20.98
939632	AE1-193 E O1	140.38
939681	AE1-198 C O1	62.28
939682	AE1-198 E O1	52.93
953201	J715 C	1.0
953202	J715 E	5.43
BAYOU	BAYOU	0.18
BIG_CAJUN1	BIG_CAJUN1	0.28
BIG_CAJUN2	BIG_CAJUN2	0.56
BLUEG	BLUEG	0.82
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.07
CARR	CARR	0.03
CATAWBA	CATAWBA	0.05
CBM-W1	CBM-W1	1.87
CHEOAH	CHEOAH	0.08
CHILHOWEE	CHILHOWEE	0.03
CHOCTAW	CHOCTAW	0.19
COFFEEN	COFFEEN	0.36
COTTONWOOD	COTTONWOOD	0.7
DEARBORN	DEARBORN	0.02

Bus #	Bus	MW Impact
DUCKCREEK	DUCKCREEK	1.02
EDWARDS	EDWARDS	0.7
ELMERSMITH	ELMERSMITH	0.11
G-007	G-007	0.1
GIBSON	GIBSON	0.05
HAMLET	HAMLET	0.15
MEC	MEC	1.58
NEWTON	NEWTON	0.63
O-066	O-066	0.32
PRAIRIE	PRAIRIE	1.02
RENSSELAER	RENSSELAER	0.03
SANTEETLA	SANTEETLA	0.02
SMITHLAND	SMITHLAND	0.06
TILTON	TILTON	0.38
TRIMBLE	TRIMBLE	0.09
TVA	TVA	0.33
UNIONPOWER	UNIONPOWER	0.13
WEC	WEC	0.45
Z1-043	Z1-043	21.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209263	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	71.25	143.6	DC	360.29

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	2.91
293513	O-009 C1	2.26
293514	O-009 C2	1.15
293515	O-009 C3	1.27
293516	O-009 E1	59.11
293517	O-009 E2	30.02
293518	O-009 E3	33.06
926841	AC1-171 C O1	3.11
926842	AC1-171 E O1	20.78
934051	AD1-031 C O1	19.17
934052	AD1-031 E O1	31.27
939631	AE1-193 C O1	46.84
939632	AE1-193 E O1	313.45
939681	AE1-198 C O1	139.07
939682	AE1-198 E O1	118.18
990901	L-005 E	75.95
BAYOU	BAYOU	0.05
BIG_CAJUN1	BIG_CAJUN1	0.06
BIG_CAJUN2	BIG_CAJUN2	0.11
CBM-N	CBM-N	0.06
CBM-S1	CBM-S1	0.22
CBM-S2	CBM-S2	0.11
CBM-W2	CBM-W2	3.56
CIN	CIN	0.63
COTTONWOOD	COTTONWOOD	0.25
CPLE	CPLE	0.05
FARMERCITY	FARMERCITY	0.26
G-007A	G-007A	0.19
IPL	IPL	0.35
LGEE	LGEE	0.1
MECS	MECS	0.14
NYISO	NYISO	0.26
O-066A	O-066A	0.09
TATANKA	TATANKA	0.65
UNIONPOWER	UNIONPOWER	0.03
VFT	VFT	0.51
Z1-043	Z1-043	16.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210794	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	498.0	100.57	111.01	DC	51.98

Bus #	Bus	MW Impact
274832	U4-027	8.41
274847	GR RIDGE ;BU	4.04
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.31
274871	GR RIDGE ;2U	5.13
274877	BISHOP HL;1U	0.32
274878	BISHOP HL;2U	0.32
293061	N-015 E	105.38
293771	O-035 E	8.08
294392	P-010 E	133.83
294401	BSHIL;1U E	8.31
294410	BSHIL;2U E	8.31
916211	Z1-072 E	6.11
917451	Z2-081	1.24
919621	AA2-039 C	2.03
919622	AA2-039 E	13.56
925581	AC1-033 C	1.36
925582	AC1-033 E	9.11
926821	AC1-168 C O1	3.02
926822	AC1-168 E O1	20.26
927201	AC1-214 C O1	2.59
927202	AC1-214 E O1	8.24
934051	AD1-031 C O1	2.77
934052	AD1-031 E O1	4.51
936511	AD2-066 C O1	13.99
936512	AD2-066 E O1	9.33
939631	AE1-193 C O1	6.76
939632	AE1-193 E O1	45.22
939681	AE1-198 C O1	20.06
939682	AE1-198 E O1	17.05
953201	J715 C	3.06
953202	J715 E	16.57
954201	J887 C	1.16
954202	J887 E	6.26
990901	L-005 E	11.25
AB2-013	AB2-013	5.34
CARR	CARR	0.01
CBM-S1	CBM-S1	0.87
CBM-S2	CBM-S2	0.2
CBM-W1	CBM-W1	2.04

Bus #	Bus	MW Impact
CBM-W2	CBM-W2	14.12
CIN	CIN	0.43
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.14
G-007	G-007	0.02
IPL	IPL	0.21
LGEE	LGEE	0.05
MEC	MEC	5.3
O-066	O-066	0.06
RENSSELAER	RENSSELAER	0.01
WEC	WEC	0.03
Z1-043	Z1-043	54.04

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210834	271908	LASCO STA; B	CE	270802	LASCO STA; B	CE	1	COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A	tower	498.0	96.01	106.28	DC	51.13

Bus #	Bus	MW Impact
274832	U4-027	8.28
274847	GR RIDGE ;BU	3.97
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.3
274871	GR RIDGE ;2U	5.04
274877	BISHOP HL;1U	0.31
274878	BISHOP HL;2U	0.31
293061	N-015 E	103.47
293771	O-035 E	7.94
294392	P-010 E	131.41
294401	BSHIL;1U E	8.18
294410	BSHIL;2U E	8.18
916211	Z1-072 E	6.01
917451	Z2-081	1.22
919621	AA2-039 C	1.99
919622	AA2-039 E	13.34
925581	AC1-033 C	1.34
925582	AC1-033 E	8.96
926821	AC1-168 C O1	2.97
926822	AC1-168 E O1	19.9
927201	AC1-214 C O1	2.55
927202	AC1-214 E O1	8.1
934051	AD1-031 C O1	2.72
934052	AD1-031 E O1	4.44
936511	AD2-066 C O1	13.75
936512	AD2-066 E O1	9.17
939631	AE1-193 C O1	6.65
939632	AE1-193 E O1	44.49
939681	AE1-198 C O1	19.74
939682	AE1-198 E O1	16.77
953201	J715 C	3.01
953202	J715 E	16.27
954201	J887 C	1.14
954202	J887 E	6.16
990901	L-005 E	11.07
AB2-013	AB2-013	5.3
CARR	CARR	0.01
CBM-S1	CBM-S1	0.87
CBM-S2	CBM-S2	0.2
CBM-W1	CBM-W1	2.05

Bus #	Bus	MW Impact
CBM-W2	CBM-W2	14.08
CIN	CIN	0.43
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.14
G-007	G-007	0.02
IPL	IPL	0.22
LGEE	LGEE	0.05
MEC	MEC	5.28
O-066	O-066	0.05
RENSSELAER	RENSSELAER	0.01
WEC	WEC	0.04
Z1-043	Z1-043	53.11

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209757	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	70.28	88.15	DC	92.92

Bus #	Bus	MW Impact
272363	ESS H440 ; R	0.58
274832	U4-027	27.73
274848	CAMPGROVE;RU	0.76
274849	CRESCENT ;1U	0.23
274850	MENDOTA H;RU	0.14
274851	PROVIDENC;RU	0.35
274855	GSG-6 ;RU	0.59
274872	LEE DEKAL;1U	0.84
274877	BISHOP HL;1U	0.57
274878	BISHOP HL;2U	0.57
290051	GSG-6; E	15.38
290108	LEEDK;1U E	22.77
293513	O-009 C1	1.5
293514	O-009 C2	0.76
293515	O-009 C3	0.84
293516	O-009 E1	39.16
293517	O-009 E2	19.89
293518	O-009 E3	21.9
293712	O-029 C	1.88
293713	O-029 C	1.03
293714	O-029 C	0.95
293715	O-029 E	48.99
293716	O-029 E	26.86
293717	O-029 E	24.69
293771	O-035 E	9.22
294401	BSHIL;1U E	14.85
294410	BSHIL;2U E	14.85
294763	P-046 E	6.26
295108	WESTBROOK C	0.21
295109	WESTBROOK E	8.23
295110	SUBLETTE C	0.18
295111	SUBLETTE E	7.76
905471	W4-084	0.19
907361	X1-087	0.31
916211	Z1-072 E	6.98
916221	Z1-073 E	7.94
919621	AA2-039 C	3.62
919622	AA2-039 E	24.22
925301	AB2-191 C	0.23
925302	AB2-191 E	2.04
925581	AC1-033 C	2.43

Bus #	Bus	MW Impact
925582	AC1-033 E	16.29
926821	AC1-168 C O1	0.97
926822	AC1-168 E O1	6.52
926841	AC1-171 C O1	0.87
926842	AC1-171 E O1	5.82
927201	AC1-214 C O1	2.96
927202	AC1-214 E O1	9.41
933341	AC2-147 C	1.48
933342	AC2-147 E	2.41
933911	AD1-013 C	2.63
933912	AD1-013 E	4.2
934051	AD1-031 C O1	4.94
934052	AD1-031 E O1	8.07
934431	AD1-067 C	0.19
934432	AD1-067 E	0.81
934651	AD1-096 C	1.01
934652	AD1-096 E	1.65
934701	AD1-098 C O1	10.67
934702	AD1-098 E O1	7.79
934881	AD1-117 C	9.08
934882	AD1-117 E	6.06
937001	AD2-134 C	4.02
937002	AD2-134 E	16.61
937311	AD2-172 C	1.64
937312	AD2-172 E	2.27
938861	AE1-114 C O1	4.78
938862	AE1-114 E O1	18.28
939631	AE1-193 C O1	12.08
939632	AE1-193 E O1	80.84
939681	AE1-198 C O1	35.87
939682	AE1-198 E O1	30.48
939691	AE1-199	3.41
939921	AE1-228 C O1	13.95
939922	AE1-228 E O1	9.3
939961	AE1-233 C O1	1.23
939962	AE1-233 E O1	5.07
953201	J715 C	1.58
953202	J715 E	8.56
954201	J887 C	2.24
954202	J887 E	12.09
990901	L-005 E	19.73
BAYOU	BAYOU	0.37
BIG_CAJUN1	BIG_CAJUN1	0.51
BIG_CAJUN2	BIG_CAJUN2	1.04
CALDERWOOD	CALDERWOOD	0.03
CATAWBA	CATAWBA	0.0
CBM-N	CBM-N	0.06
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.26
CIN	CIN	0.42
COTTONWOOD	COTTONWOOD	1.56

Bus #	Bus	MW Impact
CPLE	CPLE	0.01
FARMERCITY	FARMERCITY	0.55
G-007A	G-007A	0.19
HAMLET	HAMLET	0.0
IPL	IPL	0.25
LGEE	LGEE	0.07
MECS	MECS	0.5
NYISO	NYISO	0.27
O-066A	O-066A	0.09
PRAIRIE	PRAIRIE	0.59
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.03
TATANKA	TATANKA	1.17
TVA	TVA	0.26
UNIONPOWER	UNIONPOWER	0.25
VFT	VFT	0.52
Z1-043	Z1-043	27.51

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209247	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	95.71	162.65	DC	153.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293771	O-035 E	4.15
294401	BSHIL;1U E	24.62
294410	BSHIL;2U E	24.62
916211	Z1-072 E	3.14
919621	AA2-039 C	6.0
919622	AA2-039 E	40.16
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.57
926841	AC1-171 C O1	1.39
926842	AC1-171 E O1	9.25
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.24
934051	AD1-031 C O1	8.19
934052	AD1-031 E O1	13.36
939631	AE1-193 C O1	20.01
939632	AE1-193 E O1	133.95
939681	AE1-198 C O1	59.43
939682	AE1-198 E O1	50.5
953201	J715 C	1.14
953202	J715 E	6.16
954201	J887 C	0.59
954202	J887 E	3.19
990901	L-005 E	32.55
BAYOU	BAYOU	0.02
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.26
CBM-S2	CBM-S2	0.14
CBM-W2	CBM-W2	4.06
CIN	CIN	0.54
COTTONWOOD	COTTONWOOD	0.09
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.21
G-007A	G-007A	0.22
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.23
NYISO	NYISO	0.3

Bus #	Bus	MW Impact
O-066A	O-066A	0.1
TATANKA	TATANKA	0.58
UNIONPOWER	UNIONPOWER	0.0
VFT	VFT	0.59
Z1-043	Z1-043	22.77

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209480	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P4_001-38-TR81___	breaker	223.0	124.86	133.82	DC	44.32

Bus #	Bus	MW Impact
274832	U4-027	7.15
274847	GR RIDGE ;BU	0.82
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.3
274871	GR RIDGE ;2U	1.04
293061	N-015 E	21.37
293771	O-035 E	7.88
294392	P-010 E	27.14
294401	BSHIL;1U E	7.09
294410	BSHIL;2U E	7.09
916211	Z1-072 E	5.96
917451	Z2-081	0.35
919621	AA2-039 C	1.73
919622	AA2-039 E	11.57
925581	AC1-033 C	1.16
925582	AC1-033 E	7.77
926821	AC1-168 C O1	1.69
926822	AC1-168 E O1	11.35
927201	AC1-214 C O1	2.53
927202	AC1-214 E O1	8.04
934051	AD1-031 C O1	2.36
934052	AD1-031 E O1	3.85
939631	AE1-193 C O1	5.76
939632	AE1-193 E O1	38.56
939681	AE1-198 C O1	17.11
939682	AE1-198 E O1	14.54
953201	J715 C	3.38
953202	J715 E	18.26
954201	J887 C	0.99
954202	J887 E	5.37
990901	L-005 E	9.6
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.8
CBM-S2	CBM-S2	0.21
CBM-W1	CBM-W1	1.35
CBM-W2	CBM-W2	12.0
CIN	CIN	0.46
CPLE	CPLE	0.07
DEARBORN	DEARBORN	0.09
G-007A	G-007A	0.05

Bus #	Bus	MW Impact
IPL	IPL	0.24
LGEE	LGEE	0.07
MEC	MEC	4.04
NYISO	NYISO	0.05
O-066A	O-066A	0.02
VFT	VFT	0.12
Z1-043	Z1-043	42.98

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209579	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P4_074-38-L7413__	breaker	268.0	75.54	104.63	DC	77.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	0.9
274877	BISHOP HL;1U	0.48
274878	BISHOP HL;2U	0.48
293516	O-009 E1	4.96
293517	O-009 E2	2.52
293518	O-009 E3	2.78
294401	BSHIL;1U E	12.49
294410	BSHIL;2U E	12.49
919621	AA2-039 C	3.04
919622	AA2-039 E	20.37
926841	AC1-171 C O1	3.57
926842	AC1-171 E O1	23.85
934051	AD1-031 C O1	4.15
934052	AD1-031 E O1	6.77
939631	AE1-193 C O1	10.13
939632	AE1-193 E O1	67.83
939681	AE1-198 C O1	30.09
939682	AE1-198 E O1	25.57
990901	L-005 E	23.55
BLUEG	BLUEG	0.51
CANNELTON	CANNELTON	0.03
CARR	CARR	0.02
CATAWBA	CATAWBA	0.01
CBM-S1	CBM-S1	0.06
CBM-W1	CBM-W1	2.04
CBM-W2	CBM-W2	2.81
COFFEEN	COFFEEN	0.06
DEARBORN	DEARBORN	0.05
EDWARDS	EDWARDS	1.76
ELMERSMITH	ELMERSMITH	0.04
G-007	G-007	0.06
GIBSON	GIBSON	0.03
HAMLET	HAMLET	0.03
MEC	MEC	3.32
NEWTON	NEWTON	0.22
O-066	O-066	0.2
RENSSELAER	RENSSELAER	0.02
TILTON	TILTON	0.45
TRIMBLE	TRIMBLE	0.06
WEC	WEC	0.28
Z1-043	Z1-043	9.52

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210905	272367	ROCK FALL; R	CE	272366	ROCK FALL; B	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	230.0	88.49	98.07	DC	48.83

Bus #	Bus	MW Impact
293513	O-009 C1	2.02
293514	O-009 C2	1.03
293515	O-009 C3	1.13
293516	O-009 E1	52.76
293517	O-009 E2	26.8
293518	O-009 E3	29.51
293771	O-035 E	4.77
294401	BSHIL;1U E	7.76
294410	BSHIL;2U E	7.76
916211	Z1-072 E	3.61
919621	AA2-039 C	1.89
919622	AA2-039 E	12.65
925581	AC1-033 C	1.26
925582	AC1-033 E	8.45
927201	AC1-214 C O1	1.53
927202	AC1-214 E O1	4.87
934051	AD1-031 C O1	2.6
934052	AD1-031 E O1	4.24
939631	AE1-193 C O1	6.35
939632	AE1-193 E O1	42.49
939681	AE1-198 C O1	18.85
939682	AE1-198 E O1	16.02
954201	J887 C	1.15
954202	J887 E	6.2
990901	L-005 E	10.37
CBM-N	CBM-N	0.03
CBM-S1	CBM-S1	0.16
CBM-S2	CBM-S2	0.07
CBM-W2	CBM-W2	2.69
CIN	CIN	0.28
CPLE	CPLE	0.03
FARMERCITY	FARMERCITY	0.1
G-007A	G-007A	0.11
IPL	IPL	0.16
LGEE	LGEE	0.05
MECS	MECS	0.09
NYISO	NYISO	0.15
O-066A	O-066A	0.05
TATANKA	TATANKA	0.32
VFT	VFT	0.29

Bus #	Bus	MW Impact
Z1-043	Z1-043	14.37

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209312	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P4_074-38-L7413__	breaker	274.0	76.59	135.45	DC	161.28

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.86
274877	BISHOP HL;1U	0.99
274878	BISHOP HL;2U	0.99
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.92
293517	O-009 E2	5.04
293518	O-009 E3	5.55
293771	O-035 E	3.84
294401	BSHIL;1U E	25.83
294410	BSHIL;2U E	25.83
916211	Z1-072 E	2.91
919621	AA2-039 C	6.3
919622	AA2-039 E	42.14
926821	AC1-168 C O1	0.81
926822	AC1-168 E O1	5.43
927201	AC1-214 C O1	1.23
927202	AC1-214 E O1	3.92
934051	AD1-031 C O1	8.58
934052	AD1-031 E O1	14.0
939631	AE1-193 C O1	20.97
939632	AE1-193 E O1	140.31
939681	AE1-198 C O1	62.25
939682	AE1-198 E O1	52.9
953201	J715 C	1.0
953202	J715 E	5.43
990901	L-005 E	48.61
BAYOU	BAYOU	0.19
BIG_CAJUN1	BIG_CAJUN1	0.3
BIG_CAJUN2	BIG_CAJUN2	0.61
BLUEG	BLUEG	0.9
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.07
CARR	CARR	0.04
CATAWBA	CATAWBA	0.05
CBM-W1	CBM-W1	1.78
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
CHOCTAW	CHOCTAW	0.21
COFFEEN	COFFEEN	0.37

Bus #	Bus	MW Impact
COTTONWOOD	COTTONWOOD	0.77
DEARBORN	DEARBORN	0.03
DUCKCREEK	DUCKCREEK	1.03
EDWARDS	EDWARDS	0.71
ELMERSMITH	ELMERSMITH	0.12
G-007	G-007	0.11
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.17
MEC	MEC	1.51
NEWTON	NEWTON	0.65
O-066	O-066	0.38
PRAIRIE	PRAIRIE	1.06
RENSSELAER	RENSSELAER	0.03
SANTEETLA	SANTEETLA	0.03
SMITHLAND	SMITHLAND	0.06
TILTON	TILTON	0.39
TRIMBLE	TRIMBLE	0.1
TVA	TVA	0.36
UNIONPOWER	UNIONPOWER	0.14
WEC	WEC	0.44
Z1-043	Z1-043	21.92

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209759	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	70.28	88.15	DC	92.92

Bus #	Bus	MW Impact
272363	ESS H440 ; R	0.58
274832	U4-027	27.73
274848	CAMPGROVE;RU	0.76
274849	CRESCENT ;1U	0.23
274850	MENDOTA H;RU	0.14
274851	PROVIDENC;RU	0.35
274855	GSG-6 ;RU	0.59
274872	LEE DEKAL;1U	0.84
274877	BISHOP HL;1U	0.57
274878	BISHOP HL;2U	0.57
290051	GSG-6; E	15.38
290108	LEEDK;1U E	22.77
293513	O-009 C1	1.5
293514	O-009 C2	0.76
293515	O-009 C3	0.84
293516	O-009 E1	39.16
293517	O-009 E2	19.89
293518	O-009 E3	21.9
293712	O-029 C	1.88
293713	O-029 C	1.03
293714	O-029 C	0.95
293715	O-029 E	48.99
293716	O-029 E	26.86
293717	O-029 E	24.69
293771	O-035 E	9.22
294401	BSHIL;1U E	14.85
294410	BSHIL;2U E	14.85
294763	P-046 E	6.26
295108	WESTBROOK C	0.21
295109	WESTBROOK E	8.23
295110	SUBLETTE C	0.18
295111	SUBLETTE E	7.76
905471	W4-084	0.19
907361	X1-087	0.31
916211	Z1-072 E	6.98
916221	Z1-073 E	7.94
919621	AA2-039 C	3.62
919622	AA2-039 E	24.22
925301	AB2-191 C	0.23
925302	AB2-191 E	2.04
925581	AC1-033 C	2.43

Bus #	Bus	MW Impact
925582	AC1-033 E	16.29
926821	AC1-168 C O1	0.97
926822	AC1-168 E O1	6.52
926841	AC1-171 C O1	0.87
926842	AC1-171 E O1	5.82
927201	AC1-214 C O1	2.96
927202	AC1-214 E O1	9.41
933341	AC2-147 C	1.48
933342	AC2-147 E	2.41
933911	AD1-013 C	2.63
933912	AD1-013 E	4.2
934051	AD1-031 C O1	4.94
934052	AD1-031 E O1	8.07
934431	AD1-067 C	0.19
934432	AD1-067 E	0.81
934651	AD1-096 C	1.01
934652	AD1-096 E	1.65
934701	AD1-098 C O1	10.67
934702	AD1-098 E O1	7.79
934881	AD1-117 C	9.08
934882	AD1-117 E	6.06
937001	AD2-134 C	4.02
937002	AD2-134 E	16.61
937311	AD2-172 C	1.64
937312	AD2-172 E	2.27
938861	AE1-114 C O1	4.78
938862	AE1-114 E O1	18.28
939631	AE1-193 C O1	12.08
939632	AE1-193 E O1	80.84
939681	AE1-198 C O1	35.87
939682	AE1-198 E O1	30.48
939691	AE1-199	3.41
939921	AE1-228 C O1	13.95
939922	AE1-228 E O1	9.3
939961	AE1-233 C O1	1.23
939962	AE1-233 E O1	5.07
953201	J715 C	1.58
953202	J715 E	8.56
954201	J887 C	2.24
954202	J887 E	12.09
990901	L-005 E	19.73
BAYOU	BAYOU	0.37
BIG_CAJUN1	BIG_CAJUN1	0.51
BIG_CAJUN2	BIG_CAJUN2	1.04
CALDERWOOD	CALDERWOOD	0.03
CATAWBA	CATAWBA	0.0
CBM-N	CBM-N	0.06
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.26
CIN	CIN	0.42
COTTONWOOD	COTTONWOOD	1.56

Bus #	Bus	MW Impact
CPLE	CPLE	0.01
FARMERCITY	FARMERCITY	0.55
G-007A	G-007A	0.19
HAMLET	HAMLET	0.0
IPL	IPL	0.25
LGEE	LGEE	0.07
MECS	MECS	0.5
NYISO	NYISO	0.27
O-066A	O-066A	0.09
PRAIRIE	PRAIRIE	0.59
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.03
TATANKA	TATANKA	1.17
TVA	TVA	0.26
UNIONPOWER	UNIONPOWER	0.25
VFT	VFT	0.52
Z1-043	Z1-043	27.51

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209641	293710	O29	CE	272366	ROCK FALL; B	CE	1	COMED_P4_155-38-L15508_	breaker	498.0	90.34	107.7	DC	86.47

Bus #	Bus	MW Impact
274832	U4-027	34.46
274848	CAMPGROVE;RU	0.71
274849	CRESCENT ;1U	0.22
274851	PROVIDENC;RU	0.33
274877	BISHOP HL;1U	0.53
274878	BISHOP HL;2U	0.53
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.97
293517	O-009 E2	5.06
293518	O-009 E3	5.57
293712	O-029 C	2.92
293713	O-029 C	1.6
293714	O-029 C	1.48
293715	O-029 E	76.19
293716	O-029 E	41.77
293717	O-029 E	38.39
293771	O-035 E	8.63
294401	BSHIL;1U E	13.86
294410	BSHIL;2U E	13.86
916211	Z1-072 E	6.53
919621	AA2-039 C	3.38
919622	AA2-039 E	22.61
925581	AC1-033 C	2.28
925582	AC1-033 E	15.24
926821	AC1-168 C O1	0.9
926822	AC1-168 E O1	6.07
926841	AC1-171 C O1	0.83
926842	AC1-171 E O1	5.55
927201	AC1-214 C O1	2.77
927202	AC1-214 E O1	8.8
934051	AD1-031 C O1	4.6
934052	AD1-031 E O1	7.51
939631	AE1-193 C O1	11.24
939632	AE1-193 E O1	75.23
939681	AE1-198 C O1	33.38
939682	AE1-198 E O1	28.36
953201	J715 C	1.44
953202	J715 E	7.81
954201	J887 C	2.07

Bus #	Bus	MW Impact
954202	J887 E	11.18
990901	L-005 E	18.43
BAYOU	BAYOU	0.06
BIG_CAJUN1	BIG_CAJUN1	0.06
BIG_CAJUN2	BIG_CAJUN2	0.13
CBM-N	CBM-N	0.05
CBM-S1	CBM-S1	0.16
CBM-S2	CBM-S2	0.09
CBM-W2	CBM-W2	3.44
CHOCTAW	CHOCTAW	0.01
CIN	CIN	0.46
COTTONWOOD	COTTONWOOD	0.27
CPLE	CPLE	0.04
FARMERCITY	FARMERCITY	0.24
G-007A	G-007A	0.17
IPL	IPL	0.26
LGEE	LGEE	0.08
MECS	MECS	0.19
NYISO	NYISO	0.23
O-066A	O-066A	0.08
TATANKA	TATANKA	0.68
UNIONPOWER	UNIONPOWER	0.03
VFT	VFT	0.46
Z1-043	Z1-043	25.69

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210848	918050	AA1-018 TAP	CE	270769	GOODINGS ;2R	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	93.65	94.52	DC	28.67

Bus #	Bus	MW Impact
274677	POWERTON ;5U	24.82
274678	POWERTON ;6U	24.88
274879	MINONK ;1U	1.29
290021	O50 E	33.68
293644	O22 E1	6.5
293645	O22 E2	12.61
294401	BSHIL;1U E	4.59
294410	BSHIL;2U E	4.59
918051	AA1-018 C	1.89
918052	AA1-018 E	82.43
919621	AA2-039 C	1.12
919622	AA2-039 E	7.49
925581	AC1-033 C	0.75
925582	AC1-033 E	5.03
926841	AC1-171 C O1	0.64
926842	AC1-171 E O1	4.29
930741	AB1-122 1O1	102.48
930751	AB1-122 2O1	121.04
934051	AD1-031 C O1	1.53
934052	AD1-031 E O1	2.49
934101	AD1-039 1	10.04
934111	AD1-039 2	11.86
934871	AD1-116 C	4.8
934872	AD1-116 E	7.83
936291	AD2-038 C O1	8.22
936292	AD2-038 E O1	54.98
938851	AE1-113 C O1	15.24
938852	AE1-113 E O1	47.91
939321	AE1-163 C O1	20.65
939322	AE1-163 E O1	126.82
939631	AE1-193 C O1	3.73
939632	AE1-193 E O1	24.94
939681	AE1-198 C O1	11.07
939682	AE1-198 E O1	9.4
939861	AE1-222 1	113.17
939871	AE1-222 2	133.67
951631	J456 C	1.31
951632	J456 E	7.1
954702	J844 E	20.17
990901	L-005 E	7.01

Bus #	Bus	MW Impact
AB2-013	AB2-013	21.27
CARR	CARR	0.05
CBM-S1	CBM-S1	2.46
CBM-S2	CBM-S2	0.52
CBM-W1	CBM-W1	4.37
CBM-W2	CBM-W2	37.42
CIN	CIN	0.84
CPLE	CPLE	0.14
DEARBORN	DEARBORN	0.49
G-007	G-007	0.12
IPL	IPL	0.4
LGEE	LGEE	0.09
MEC	MEC	14.95
O-066	O-066	0.42
RENSSELAER	RENSSELAER	0.04
Z1-043	Z1-043	13.46

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210824	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	98.95	107.83	DC	37.85

Bus #	Bus	MW Impact
274832	U4-027	6.13
293771	O-035 E	5.44
294401	BSHIL;1U E	6.05
294410	BSHIL;2U E	6.05
916211	Z1-072 E	4.11
919621	AA2-039 C	1.47
919622	AA2-039 E	9.87
925581	AC1-033 C	0.99
925582	AC1-033 E	6.63
926821	AC1-168 C O1	2.68
926822	AC1-168 E O1	17.96
927201	AC1-214 C O1	1.75
927202	AC1-214 E O1	5.55
934051	AD1-031 C O1	2.01
934052	AD1-031 E O1	3.28
936511	AD2-066 C O1	8.64
936512	AD2-066 E O1	5.76
939631	AE1-193 C O1	4.92
939632	AE1-193 E O1	32.93
939681	AE1-198 C O1	14.61
939682	AE1-198 E O1	12.41
953201	J715 C	1.88
953202	J715 E	10.15
954201	J887 C	0.84
954202	J887 E	4.54
990901	L-005 E	8.19
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.71
CBM-S2	CBM-S2	0.19
CBM-W1	CBM-W1	1.69
CBM-W2	CBM-W2	10.8
CIN	CIN	0.36
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.08
G-007A	G-007A	0.04
IPL	IPL	0.19
LGEE	LGEE	0.06
MEC	MEC	4.0
NYISO	NYISO	0.05
O-066A	O-066A	0.02

Bus #	Bus	MW Impact
VFT	VFT	0.12
WEC	WEC	0.05
Z1-043	Z1-043	40.82

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210904	936290	AD2-038 TAP	CE	918050	AA1-018 TAP	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	87.3	88.17	DC	28.73

Bus #	Bus	MW Impact
274677	POWERTON ;5U	24.83
274678	POWERTON ;6U	24.89
274879	MINONK ;1U	1.29
290021	O50 E	33.7
293644	O22 E1	6.5
293645	O22 E2	12.63
293771	O-035 E	3.1
294401	BSHIL;1U E	4.6
294410	BSHIL;2U E	4.6
916211	Z1-072 E	2.34
919621	AA2-039 C	1.12
919622	AA2-039 E	7.5
925581	AC1-033 C	0.75
925582	AC1-033 E	5.04
926841	AC1-171 C O1	0.64
926842	AC1-171 E O1	4.29
927201	AC1-214 C O1	0.99
927202	AC1-214 E O1	3.16
930741	AB1-122 1O1	102.53
930751	AB1-122 2O1	121.11
934051	AD1-031 C O1	1.53
934052	AD1-031 E O1	2.49
934101	AD1-039 1	10.05
934111	AD1-039 2	11.87
936291	AD2-038 C O1	8.22
936292	AD2-038 E O1	55.0
938851	AE1-113 C O1	15.25
938852	AE1-113 E O1	47.93
939321	AE1-163 C O1	20.65
939322	AE1-163 E O1	126.85
939631	AE1-193 C O1	3.73
939632	AE1-193 E O1	24.99
939681	AE1-198 C O1	11.09
939682	AE1-198 E O1	9.42
939861	AE1-222 1	113.23
939871	AE1-222 2	133.74
951631	J456 C	1.31
951632	J456 E	7.1
953951	J859	8.13
954702	J844 E	20.17

Bus #	Bus	MW Impact
990901	L-005 E	7.02
AB2-013	AB2-013	21.29
CARR	CARR	0.04
CBM-S1	CBM-S1	2.49
CBM-S2	CBM-S2	0.53
CBM-W1	CBM-W1	4.43
CBM-W2	CBM-W2	37.66
CIN	CIN	0.86
CPLE	CPLE	0.15
DEARBORN	DEARBORN	0.48
G-007	G-007	0.11
IPL	IPL	0.42
LGEE	LGEE	0.09
MEC	MEC	15.0
O-066	O-066	0.38
RENSSELAER	RENSSELAER	0.04
Z1-043	Z1-043	13.48

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
819045	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	174.49	175.14	DC	61.6

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	13.92
274722	S-055 E	12.95
274724	RIVER EC ;11	4.75
274788	SE CHICAG;5U	1.14
274789	SE CHICAG;6U	1.14
274790	SE CHICAG;7U	1.14
274791	SE CHICAG;8U	1.14
274795	SE CHICAG;2U	1.12
274832	U4-027	12.45
274859	EASYR;U1 E	12.67
274860	EASYR;U2 E	12.67
274888	PILOT HIL;1E	22.3
274890	CAYUG;1U E	15.76
274891	CAYUG;2U E	15.76
275149	KEMPTON ;1E	22.3
290021	O50 E	22.31
290051	GSG-6; E	12.02
290108	LEEDK;1U E	27.92
293061	N-015 E	17.54
293516	O-009 E1	10.45
293517	O-009 E2	5.31
293518	O-009 E3	5.85
293644	O22 E1	11.95
293645	O22 E2	23.2
293715	O-029 E	11.27
293716	O-029 E	6.18
293717	O-029 E	5.68
293771	O-035 E	7.36
294392	P-010 E	22.27
294763	P-046 E	10.8
295109	WESTBROOK E	6.44
295111	SUBLETTE E	2.99
910542	X3-005 E	1.0
914641	Y2-103	51.8
915011	Y3-013 1	4.32
915021	Y3-013 2	4.32
915031	Y3-013 3	4.32
916211	Z1-072 E	5.57
916221	Z1-073 E	6.2
916502	Z1-106 E1	1.45
916504	Z1-106 E2	1.45

Bus #	Bus	MW Impact
916512	Z1-107 E	3.03
916522	Z1-108 E	2.86
918052	AA1-018 E	18.74
919221	AA1-146	20.28
919581	AA2-030	20.28
920272	AA2-123 E	2.81
924471	AB2-096	48.73
925161	AB2-173	3.62
925302	AB2-191 E	1.59
925581	AC1-033 C	1.61
925582	AC1-033 E	10.81
925881	AC1-067 O1	198.49
926311	AC1-109 1	2.19
926321	AC1-109 2	2.19
926331	AC1-110 1	2.18
926341	AC1-110 2	2.18
926351	AC1-111 1	0.88
926361	AC1-111 2	0.88
926371	AC1-111 3	0.88
926381	AC1-111 4	0.88
926391	AC1-111 5	0.88
926401	AC1-111 6	0.88
926431	AC1-114	2.74
926821	AC1-168 C O1	1.32
926822	AC1-168 E O1	8.85
927091	AC1-204 1	83.26
927101	AC1-204 2	83.23
927201	AC1-214 C O1	2.36
927202	AC1-214 E O1	7.51
927451	AC1-142A 1	4.83
927461	AC1-142A 2	4.84
927511	AC1-113 1	1.37
927521	AC1-113 2	1.37
927531	AC1-185 1	0.79
927541	AC1-185 2	0.79
927551	AC1-185 3	0.79
927561	AC1-185 4	0.79
927571	AC1-185 5	0.79
927581	AC1-185 6	0.79
927591	AC1-185 7	0.79
927601	AC1-185 8	0.79
930481	AB1-089	75.67
930501	AB1-091 O1	88.22
930741	AB1-122 1O1	82.42
930751	AB1-122 2O1	84.95
932881	AC2-115 1	2.74
932891	AC2-115 2	2.74
932921	AC2-116	0.96
932931	AC2-117	5.81
933341	AC2-147 C	1.0
933342	AC2-147 E	1.64
933411	AC2-154 C	3.03

Bus #	Bus	MW Impact
933412	AC2-154 E	4.94
933431	AC2-156 C O1	1.1
933432	AC2-156 E O1	1.79
933911	AD1-013 C	2.12
933912	AD1-013 E	3.38
933931	AD1-016 C	1.07
933932	AD1-016 E	1.74
934101	AD1-039 1	8.08
934111	AD1-039 2	8.33
934401	AD1-064 C O1	3.69
934402	AD1-064 E O1	17.25
934431	AD1-067 C	0.15
934432	AD1-067 E	0.63
934651	AD1-096 C	1.03
934652	AD1-096 E	1.67
934701	AD1-098 C O1	7.91
934702	AD1-098 E O1	5.78
934721	AD1-100 C	22.45
934722	AD1-100 E	104.76
934871	AD1-116 C	1.09
934872	AD1-116 E	1.78
934881	AD1-117 C	6.19
934882	AD1-117 E	4.13
934971	AD1-129 C	1.04
934972	AD1-129 E	0.69
935001	AD1-133 C O1	24.06
935002	AD1-133 E O1	16.04
936291	AD2-038 C O1	2.69
936292	AD2-038 E O1	18.02
936371	AD2-047 C O1	2.71
936372	AD2-047 E O1	29.15
936461	AD2-060	3.19
936511	AD2-066 C O1	9.67
936512	AD2-066 E O1	6.45
936781	AD2-101 C	5.9
936782	AD2-101 E	27.62
936791	AD2-102 C	13.85
936792	AD2-102 E	13.3
936961	AD2-130	0.66
937001	AD2-134 C	3.14
937002	AD2-134 E	12.98
937031	AD2-137 C O1	4.08
937032	AD2-137 E O1	19.09
937051	AD2-140 C O1	4.11
937052	AD2-140 E O1	19.25
937061	AD2-141 C O1	4.09
937062	AD2-141 E O1	19.27
937071	AD2-142 C O1	8.22
937072	AD2-142 E O1	38.5
937121	AD2-148 C O1	4.23
937122	AD2-148 E O1	19.82
937131	AD2-149 C O1	4.23

Bus #	Bus	MW Impact
937132	AD2-149 E O1	19.82
937141	AD2-150 C O1	4.23
937142	AD2-150 E O1	19.82
937181	AD2-155 C O1	4.23
937182	AD2-155 E O1	19.82
937311	AD2-172 C	2.83
937312	AD2-172 E	3.91
937321	AD2-175 C	19.73
937322	AD2-175 E	13.15
937331	AD2-176 C O1	8.43
937332	AD2-176 E O1	5.62
937401	AD2-194 1	8.95
937411	AD2-194 2	8.95
937531	AD2-214 C	5.1
937532	AD2-214 E	2.4
938012	AE1-002 E O1	8.18
938511	AE1-070 1	10.52
938521	AE1-070 2	9.62
938851	AE1-113 C O1	10.1
938852	AE1-113 E O1	31.74
938861	AE1-114 C O1	4.14
938862	AE1-114 E O1	15.83
939051	AE1-134 1	1.58
939061	AE1-134 2	1.58
939321	AE1-163 C O1	6.77
939322	AE1-163 E O1	41.57
939351	AE1-166 C O1	11.8
939352	AE1-166 E O1	10.89
939401	AE1-172 C O1	7.21
939402	AE1-172 E O1	33.74
939631	AE1-193 C O1	4.73
939632	AE1-193 E O1	31.63
939641	AE1-194 C	10.24
939642	AE1-194 E	68.55
939651	AE1-195 C	10.24
939652	AE1-195 E	68.55
939681	AE1-198 C O1	23.78
939682	AE1-198 E O1	20.2
939691	AE1-199	2.75
939701	AE1-201 C	2.31
939702	AE1-201 E	0.51
939732	AE1-204 E	0.34
939861	AE1-222 1	91.02
939871	AE1-222 2	93.81
939921	AE1-228 C O1	11.56
939922	AE1-228 E O1	7.71
939961	AE1-233 C O1	2.67
939962	AE1-233 E O1	11.05
940101	AE1-252 C O1	12.28
940102	AE1-252 E O1	8.19
951721	J643	25.73
952581	J740 C	4.3

Bus #	Bus	MW Impact
952582	J740 E	23.28
953871	J847	13.1
954751	J351	434.54
AB2-013	AB2-013	18.6
AE1-033	AE1-033	20.85
BLUEG	BLUEG	1.07
CARR	CARR	0.9
CATAWBA	CATAWBA	0.22
CBM-S1	CBM-S1	3.95
CBM-W1	CBM-W1	35.83
CBM-W2	CBM-W2	81.92
CIN	CIN	3.3
DEARBORN	DEARBORN	4.0
G-007	G-007	2.51
HAMLET	HAMLET	0.96
IPL	IPL	1.12
MEC	MEC	44.69
O-066	O-066	8.44
RENSSELAER	RENSSELAER	0.71
TRIMBLE	TRIMBLE	0.16
WEC	WEC	9.2
Z1-043	Z1-043	32.93

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
820898	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	104.37	105.16	DC	138.1

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	32.17
274722	S-055 E	29.55
274772	LINCOLN ;3U	4.7
274773	LINCOLN ;4U	4.7
274774	LINCOLN ;5U	4.7
274775	LINCOLN ;6U	4.7
274776	LINCOLN ;7U	4.7
274777	LINCOLN ;8U	4.7
274832	U4-027	28.06
274859	EASYR;U1 E	29.13
274860	EASYR;U2 E	29.13
274888	PILOT HIL;1E	44.3
274890	CAYUG;1U E	36.07
274891	CAYUG;2U E	36.07
275149	KEMPTON ;1E	44.3
290021	O50 E	49.24
290051	GSG-6; E	28.08
290108	LEEDK;1U E	65.57
293061	N-015 E	41.22
293516	O-009 E1	23.79
293517	O-009 E2	12.09
293518	O-009 E3	13.31
293644	O22 E1	25.31
293645	O22 E2	49.12
293715	O-029 E	25.78
293716	O-029 E	14.13
293717	O-029 E	12.99
293771	O-035 E	16.49
294392	P-010 E	52.34
294763	P-046 E	24.88
295109	WESTBROOK E	15.03
295111	SUBLETTE E	6.87
296125	R-030 C3	9.31
296128	R-030 E3	37.24
296271	R-030 C2	9.2
296272	R-030 E2	36.8
296308	R-030 C1	9.2
296309	R-030 E1	36.8
910542	X3-005 E	1.57
914641	Y2-103	118.19

Bus #	Bus	MW Impact
915011	Y3-013 1	9.85
915021	Y3-013 2	9.85
915031	Y3-013 3	9.85
916211	Z1-072 E	12.48
916221	Z1-073 E	14.49
916502	Z1-106 E1	3.41
916504	Z1-106 E2	3.41
916512	Z1-107 E	6.53
916522	Z1-108 E	6.62
917502	Z2-087 E	48.13
918052	AA1-018 E	40.41
919221	AA1-146	46.5
919581	AA2-030	46.5
919621	AA2-039 C	3.78
919622	AA2-039 E	25.31
920272	AA2-123 E	6.51
924471	AB2-096	112.6
925161	AB2-173	8.29
925302	AB2-191 E	3.72
925581	AC1-033 C	3.62
925582	AC1-033 E	24.22
926311	AC1-109 1	5.21
926321	AC1-109 2	5.21
926331	AC1-110 1	5.12
926341	AC1-110 2	5.12
926351	AC1-111 1	2.07
926361	AC1-111 2	2.07
926371	AC1-111 3	2.07
926381	AC1-111 4	2.07
926391	AC1-111 5	2.07
926401	AC1-111 6	2.07
926431	AC1-114	6.32
926821	AC1-168 C O1	2.98
926822	AC1-168 E O1	20.01
927091	AC1-204 1	184.27
927101	AC1-204 2	184.31
927201	AC1-214 C O1	5.29
927202	AC1-214 E O1	16.83
927451	AC1-142A 1	10.61
927461	AC1-142A 2	10.61
927511	AC1-113 1	3.16
927521	AC1-113 2	3.16
927531	AC1-185 1	1.82
927541	AC1-185 2	1.82
927551	AC1-185 3	1.82
927561	AC1-185 4	1.82
927571	AC1-185 5	1.82
927581	AC1-185 6	1.82
927591	AC1-185 7	1.82
927601	AC1-185 8	1.82
930481	AB1-089	175.15
930501	AB1-091 O1	173.97

Bus #	Bus	MW Impact
930741	AB1-122 1O1	194.95
930751	AB1-122 2O1	188.67
932881	AC2-115 1	6.32
932891	AC2-115 2	6.32
932921	AC2-116	2.21
932931	AC2-117	14.95
933341	AC2-147 C	2.31
933342	AC2-147 E	3.77
933411	AC2-154 C	6.01
933412	AC2-154 E	9.81
933431	AC2-156 C O1	2.64
933432	AC2-156 E O1	4.3
933911	AD1-013 C	4.95
933912	AD1-013 E	7.9
933931	AD1-016 C	2.47
933932	AD1-016 E	4.03
934051	AD1-031 C O1	7.35
934052	AD1-031 E O1	11.99
934101	AD1-039 1	19.1
934111	AD1-039 2	18.49
934401	AD1-064 C O1	8.56
934402	AD1-064 E O1	40.08
934431	AD1-067 C	0.35
934432	AD1-067 E	1.48
934651	AD1-096 C	2.37
934652	AD1-096 E	3.86
934701	AD1-098 C O1	18.47
934702	AD1-098 E O1	13.48
934721	AD1-100 C	51.04
934722	AD1-100 E	238.17
934871	AD1-116 C	2.35
934872	AD1-116 E	3.84
934881	AD1-117 C	14.23
934882	AD1-117 E	9.49
934971	AD1-129 C	2.4
934972	AD1-129 E	1.6
935001	AD1-133 C O1	55.95
935002	AD1-133 E O1	37.3
936291	AD2-038 C O1	5.86
936292	AD2-038 E O1	39.2
936371	AD2-047 C O1	5.38
936372	AD2-047 E O1	57.91
936461	AD2-060	6.33
936511	AD2-066 C O1	21.47
936512	AD2-066 E O1	14.31
936781	AD2-101 C	10.68
936782	AD2-101 E	49.98
936791	AD2-102 C	31.89
936792	AD2-102 E	30.64
936961	AD2-130	1.4
937001	AD2-134 C	7.34
937002	AD2-134 E	30.33

Bus #	Bus	MW Impact
937031	AD2-137 C O1	10.26
937032	AD2-137 E O1	48.01
937051	AD2-140 C O1	10.5
937052	AD2-140 E O1	49.17
937061	AD2-141 C O1	10.44
937062	AD2-141 E O1	49.23
937071	AD2-142 C O1	21.0
937072	AD2-142 E O1	98.34
937121	AD2-148 C O1	8.35
937122	AD2-148 E O1	39.1
937131	AD2-149 C O1	8.35
937132	AD2-149 E O1	39.1
937141	AD2-150 C O1	8.35
937142	AD2-150 E O1	39.1
937181	AD2-155 C O1	8.35
937182	AD2-155 E O1	39.1
937311	AD2-172 C	6.53
937312	AD2-172 E	9.02
937321	AD2-175 C	38.91
937322	AD2-175 E	25.94
937331	AD2-176 C O1	19.52
937332	AD2-176 E O1	13.01
937401	AD2-194 1	19.82
937411	AD2-194 2	19.82
937531	AD2-214 C	11.6
937532	AD2-214 E	5.46
938012	AE1-002 E O1	20.59
938511	AE1-070 1	23.28
938521	AE1-070 2	21.31
938851	AE1-113 C O1	22.28
938852	AE1-113 E O1	70.05
938861	AE1-114 C O1	9.53
938862	AE1-114 E O1	36.45
939051	AE1-134 1	3.61
939061	AE1-134 2	3.61
939321	AE1-163 C O1	14.72
939322	AE1-163 E O1	90.42
939351	AE1-166 C O1	26.27
939352	AE1-166 E O1	24.25
939401	AE1-172 C O1	16.57
939402	AE1-172 E O1	77.57
939631	AE1-193 C O1	17.95
939632	AE1-193 E O1	120.14
939641	AE1-194 C	21.1
939642	AE1-194 E	141.24
939651	AE1-195 C	21.1
939652	AE1-195 E	141.24
939681	AE1-198 C O1	53.3
939682	AE1-198 E O1	45.3
939691	AE1-199	6.42
939701	AE1-201 C	5.34
939702	AE1-201 E	1.17

Bus #	Bus	MW Impact
939732	AE1-204 E	0.77
939741	AE1-205 C O1	23.29
939742	AE1-205 E O1	32.16
939861	AE1-222 1	215.29
939871	AE1-222 2	208.36
939921	AE1-228 C O1	27.02
939922	AE1-228 E O1	18.01
939961	AE1-233 C O1	6.29
939962	AE1-233 E O1	25.97
940101	AE1-252 C O1	28.24
940102	AE1-252 E O1	18.83
AB2-013	AB2-013	41.07
AE1-033	AE1-033	47.69
BLUEG	BLUEG	16.82
CALDERWOOD	CALDERWOOD	0.23
CANNELTON	CANNELTON	0.26
CARR	CARR	1.97
CATAWBA	CATAWBA	0.8
CBM-S1	CBM-S1	3.44
CBM-W1	CBM-W1	76.96
CBM-W2	CBM-W2	140.68
CHEOAH	CHEOAH	0.24
CHILHOWEE	CHILHOWEE	0.07
DEARBORN	DEARBORN	6.43
ELMERSMITH	ELMERSMITH	0.27
G-007	G-007	5.53
GIBSON	GIBSON	0.08
HAMLET	HAMLET	3.02
MEC	MEC	98.2
O-066	O-066	18.61
RENSSELAER	RENSSELAER	1.56
SANTEETLA	SANTEETLA	0.08
TRIMBLE	TRIMBLE	1.99
WEC	WEC	20.94
Z1-043	Z1-043	73.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209646	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	112.1	112.31	DC	55.34

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	12.73
274654	BRAIDWOOD;1U	27.26
274655	BRAIDWOOD;2U	26.09
274660	LASCO STA;1U	24.9
274661	LASCO STA;2U	24.94
274675	JOLIET 29;7U	11.25
274676	JOLIET 29;8U	11.26
274687	WILL CNTY;4U	11.37
274704	KENDALL ;1C	4.0
274705	KENDALL ;1S	2.67
274706	KENDALL ;2C	4.0
274707	KENDALL ;2S	2.67
274722	S-055 E	11.91
274736	ELWOOD EC;9P	3.23
274832	U4-027	11.21
274859	EASYR;U1 E	11.52
274860	EASYR;U2 E	11.52
274861	TOP CROP ;1U	0.47
274862	TOP CROP ;2U	0.92
274888	PILOT HIL;1E	17.1
274890	CAYUG;1U E	13.64
274891	CAYUG;2U E	13.64
275149	KEMPTON ;1E	17.1
290021	O50 E	20.79
290051	GSG-6; E	10.94
290108	LEEDK;1U E	25.43
293061	N-015 E	16.43
293516	O-009 E1	9.45
293517	O-009 E2	4.8
293518	O-009 E3	5.29
293644	O22 E1	12.34
293645	O22 E2	23.96
293715	O-029 E	10.21
293716	O-029 E	5.6
293717	O-029 E	5.15
293771	O-035 E	6.61
294392	P-010 E	20.87
294763	P-046 E	9.84
295109	WESTBROOK E	5.86
295111	SUBLETTE E	2.71

Bus #	Bus	MW Impact
914641	Y2-103	47.64
915011	Y3-013 1	3.97
915021	Y3-013 2	3.97
915031	Y3-013 3	3.97
916211	Z1-072 E	5.0
916221	Z1-073 E	5.65
916502	Z1-106 E1	1.33
916504	Z1-106 E2	1.33
916512	Z1-107 E	2.55
916522	Z1-108 E	2.62
918052	AA1-018 E	16.2
919221	AA1-146	18.41
919581	AA2-030	18.41
920272	AA2-123 E	2.57
924471	AB2-096	44.55
925161	AB2-173	3.28
925302	AB2-191 E	1.45
925581	AC1-033 C	1.45
925582	AC1-033 E	9.71
926311	AC1-109 1	2.0
926321	AC1-109 2	2.0
926331	AC1-110 1	2.0
926341	AC1-110 2	2.0
926351	AC1-111 1	0.8
926361	AC1-111 2	0.8
926371	AC1-111 3	0.8
926381	AC1-111 4	0.8
926391	AC1-111 5	0.8
926401	AC1-111 6	0.8
926431	AC1-114	2.5
926821	AC1-168 C O1	1.2
926822	AC1-168 E O1	8.03
927091	AC1-204 1	78.31
927101	AC1-204 2	78.18
927201	AC1-214 C O1	2.12
927202	AC1-214 E O1	6.75
927451	AC1-142A 1	4.53
927461	AC1-142A 2	4.53
927511	AC1-113 1	1.25
927521	AC1-113 2	1.25
927531	AC1-185 1	0.72
927541	AC1-185 2	0.72
927551	AC1-185 3	0.72
927561	AC1-185 4	0.72
927571	AC1-185 5	0.72
927581	AC1-185 6	0.72
927591	AC1-185 7	0.72
927601	AC1-185 8	0.72
930481	AB1-089	69.1
930501	AB1-091 O1	67.39
930741	AB1-122 1O1	74.68
930751	AB1-122 2O1	79.86

Bus #	Bus	MW Impact
932881	AC2-115 1	2.5
932891	AC2-115 2	2.5
932921	AC2-116	0.88
933341	AC2-147 C	0.91
933342	AC2-147 E	1.49
933411	AC2-154 C	2.32
933412	AC2-154 E	3.79
933431	AC2-156 C O1	1.0
933432	AC2-156 E O1	1.63
933911	AD1-013 C	1.93
933912	AD1-013 E	3.08
933931	AD1-016 C	0.98
933932	AD1-016 E	1.6
934101	AD1-039 1	7.32
934111	AD1-039 2	7.83
934401	AD1-064 C O1	3.37
934402	AD1-064 E O1	15.78
934431	AD1-067 C	0.14
934432	AD1-067 E	0.58
934651	AD1-096 C	0.94
934652	AD1-096 E	1.53
934701	AD1-098 C O1	7.2
934702	AD1-098 E O1	5.26
934721	AD1-100 C	19.95
934722	AD1-100 E	93.11
934871	AD1-116 C	0.94
934872	AD1-116 E	1.54
934881	AD1-117 C	5.63
934882	AD1-117 E	3.75
934971	AD1-129 C	0.95
934972	AD1-129 E	0.63
935001	AD1-133 C O1	21.34
935002	AD1-133 E O1	14.23
936291	AD2-038 C O1	2.41
936292	AD2-038 E O1	16.1
936371	AD2-047 C O1	2.08
936372	AD2-047 E O1	22.36
936461	AD2-060	2.44
936511	AD2-066 C O1	8.72
936512	AD2-066 E O1	5.81
936781	AD2-101 C	3.97
936782	AD2-101 E	18.57
936791	AD2-102 C	12.63
936792	AD2-102 E	12.14
936961	AD2-130	0.59
937001	AD2-134 C	2.86
937002	AD2-134 E	11.82
937031	AD2-137 C O1	3.34
937032	AD2-137 E O1	15.64
937051	AD2-140 C O1	3.33
937052	AD2-140 E O1	15.57
937061	AD2-141 C O1	3.31

Bus #	Bus	MW Impact
937062	AD2-141 E O1	15.59
937071	AD2-142 C O1	6.65
937072	AD2-142 E O1	31.14
937121	AD2-148 C O1	3.24
937122	AD2-148 E O1	15.15
937131	AD2-149 C O1	3.24
937132	AD2-149 E O1	15.15
937141	AD2-150 C O1	3.24
937142	AD2-150 E O1	15.15
937181	AD2-155 C O1	3.24
937182	AD2-155 E O1	15.15
937311	AD2-172 C	2.58
937312	AD2-172 E	3.57
937321	AD2-175 C	15.07
937322	AD2-175 E	10.05
937331	AD2-176 C O1	7.72
937332	AD2-176 E O1	5.15
937401	AD2-194 1	8.42
937411	AD2-194 2	8.41
937531	AD2-214 C	4.61
937532	AD2-214 E	2.17
938012	AE1-002 E O1	6.71
938511	AE1-070 1	9.9
938521	AE1-070 2	9.04
938851	AE1-113 C O1	9.41
938852	AE1-113 E O1	29.58
938861	AE1-114 C O1	3.77
938862	AE1-114 E O1	14.41
939051	AE1-134 1	1.43
939061	AE1-134 2	1.43
939321	AE1-163 C O1	6.04
939322	AE1-163 E O1	37.13
939351	AE1-166 C O1	10.67
939352	AE1-166 E O1	9.85
939401	AE1-172 C O1	6.26
939402	AE1-172 E O1	29.29
939631	AE1-193 C O1	1.03
939632	AE1-193 E O1	6.9
939681	AE1-198 C O1	21.36
939682	AE1-198 E O1	18.15
939691	AE1-199	2.5
939701	AE1-201 C	2.11
939702	AE1-201 E	0.46
939732	AE1-204 E	0.31
939861	AE1-222 1	82.47
939871	AE1-222 2	88.2
939921	AE1-228 C O1	10.52
939922	AE1-228 E O1	7.01
939961	AE1-233 C O1	2.44
939962	AE1-233 E O1	10.07
940101	AE1-252 C O1	10.66
940102	AE1-252 E O1	7.11

Bus #	Bus	MW Impact
AB2-013	AB2-013	16.84
AE1-033	AE1-033	19.0
BLUEG	BLUEG	5.85
CALDERWOOD	CALDERWOOD	0.03
CANNELTON	CANNELTON	0.09
CARR	CARR	0.74
CATAWBA	CATAWBA	0.27
CBM-S1	CBM-S1	1.66
CBM-W1	CBM-W1	26.48
CBM-W2	CBM-W2	55.79
CHEOAH	CHEOAH	0.04
CHILHOWEE	CHILHOWEE	0.01
DEARBORN	DEARBORN	3.02
ELMERSMITH	ELMERSMITH	0.09
G-007	G-007	2.06
GIBSON	GIBSON	0.05
HAMLET	HAMLET	1.03
MEC	MEC	39.2
O-066	O-066	6.93
RENSSELAER	RENSSELAER	0.58
SANTEETLA	SANTEETLA	0.01
TRIMBLE	TRIMBLE	0.69
WEC	WEC	8.42
Z1-043	Z1-043	29.68

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209558	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-L11614_	breaker	1802.0	120.86	121.9	DC	41.26

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	7.96
274722	S-055 E	7.38
274728	ELWOOD EC;5P	4.75
274730	ELWOOD EC;6P	4.75
274732	ELWOOD EC;7P	4.75
274734	ELWOOD EC;8P	4.75
274735	ELWOOD EC;4P	4.72
274736	ELWOOD EC;9P	4.75
274832	U4-027	8.21
274859	EASYR;U1 E	7.73
274860	EASYR;U2 E	7.73
274861	TOP CROP ;1U	0.95
274862	TOP CROP ;2U	1.84
290021	O50 E	25.65
290051	GSG-6; E	6.67
293516	O-009 E1	6.67
293517	O-009 E2	3.39
293518	O-009 E3	3.73
293644	O22 E1	24.77
293645	O22 E2	48.08
293715	O-029 E	7.07
293716	O-029 E	3.88
293717	O-029 E	3.56
293771	O-035 E	4.74
294401	BSHIL;1U E	6.6
294410	BSHIL;2U E	6.6
294763	P-046 E	6.37
295109	WESTBROOK E	3.57
295111	SUBLETTE E	1.82
914641	Y2-103	29.53
915011	Y3-013 1	2.46
915021	Y3-013 2	2.46
915031	Y3-013 3	2.46
916211	Z1-072 E	3.58
916221	Z1-073 E	3.44
916502	Z1-106 E1	0.78
916504	Z1-106 E2	0.78
916522	Z1-108 E	1.6
918052	AA1-018 E	19.58
919221	AA1-146	12.7
919581	AA2-030	12.7

Bus #	Bus	MW Impact
919621	AA2-039 C	1.61
919622	AA2-039 E	10.77
920272	AA2-123 E	1.59
924471	AB2-096	27.85
925161	AB2-173	2.27
925302	AB2-191 E	0.88
925581	AC1-033 C	1.08
925582	AC1-033 E	7.24
926331	AC1-110 1	1.2
926341	AC1-110 2	1.2
926431	AC1-114	1.59
926841	AC1-171 C O1	0.79
926842	AC1-171 E O1	5.24
927091	AC1-204 1	115.11
927101	AC1-204 2	114.46
927201	AC1-214 C O1	1.52
927202	AC1-214 E O1	4.83
927451	AC1-142A 1	3.64
927461	AC1-142A 2	3.67
927511	AC1-113 1	0.79
927521	AC1-113 2	0.79
927531	AC1-185 1	0.48
927541	AC1-185 2	0.48
927551	AC1-185 3	0.48
927561	AC1-185 4	0.48
927571	AC1-185 5	0.48
927581	AC1-185 6	0.48
927591	AC1-185 7	0.48
927601	AC1-185 8	0.48
930481	AB1-089	43.91
930741	AB1-122 1O1	65.29
930751	AB1-122 2O1	95.35
932881	AC2-115 1	1.59
932891	AC2-115 2	1.59
932921	AC2-116	0.56
933341	AC2-147 C	0.61
933342	AC2-147 E	0.99
933911	AD1-013 C	1.17
933912	AD1-013 E	1.87
933931	AD1-016 C	0.61
933932	AD1-016 E	0.99
934051	AD1-031 C O1	2.2
934052	AD1-031 E O1	3.58
934101	AD1-039 1	6.4
934111	AD1-039 2	9.34
934401	AD1-064 C O1	2.11
934402	AD1-064 E O1	9.87
934431	AD1-067 C	0.08
934432	AD1-067 E	0.35
934651	AD1-096 C	0.6
934652	AD1-096 E	0.99
934701	AD1-098 C O1	4.41

Bus #	Bus	MW Impact
934702	AD1-098 E O1	3.22
934871	AD1-116 C	1.14
934872	AD1-116 E	1.86
934881	AD1-117 C	3.74
934882	AD1-117 E	2.49
934971	AD1-129 C	0.6
934972	AD1-129 E	0.4
935001	AD1-133 C O1	14.7
935002	AD1-133 E O1	9.8
936291	AD2-038 C O1	2.98
936292	AD2-038 E O1	19.92
936511	AD2-066 C O1	6.45
936512	AD2-066 E O1	4.3
936791	AD2-102 C	8.1
936792	AD2-102 E	7.78
937001	AD2-134 C	1.74
937002	AD2-134 E	7.2
937311	AD2-172 C	1.67
937312	AD2-172 E	2.31
937331	AD2-176 C O1	4.78
937332	AD2-176 E O1	3.18
937401	AD2-194 1	12.38
937411	AD2-194 2	12.31
937531	AD2-214 C	3.27
937532	AD2-214 E	1.54
938511	AE1-070 1	14.54
938521	AE1-070 2	13.23
938851	AE1-113 C O1	11.61
938852	AE1-113 E O1	36.49
938861	AE1-114 C O1	2.48
938862	AE1-114 E O1	9.49
939051	AE1-134 1	0.99
939061	AE1-134 2	0.99
939321	AE1-163 C O1	7.48
939322	AE1-163 E O1	45.95
939631	AE1-193 C O1	5.36
939632	AE1-193 E O1	35.9
939681	AE1-198 C O1	15.93
939682	AE1-198 E O1	13.53
939691	AE1-199	1.52
939701	AE1-201 C	1.31
939702	AE1-201 E	0.29
939732	AE1-204 E	0.19
939861	AE1-222 1	72.1
939871	AE1-222 2	105.3
939921	AE1-228 C O1	6.37
939922	AE1-228 E O1	4.25
990901	L-005 E	9.75
AB2-013	AB2-013	17.74
AE1-033	AE1-033	12.31
BLUEG	BLUEG	2.87
CANNELTON	CANNELTON	0.0

Bus #	Bus	MW Impact
CARR	CARR	0.36
CATAWBA	CATAWBA	0.06
CBM-S1	CBM-S1	2.13
CBM-W1	CBM-W1	18.07
CBM-W2	CBM-W2	45.91
DEARBORN	DEARBORN	1.82
G-007	G-007	0.99
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.28
MEC	MEC	29.52
O-066	O-066	3.34
RENSSELAER	RENSSELAER	0.28
TRIMBLE	TRIMBLE	0.35
WEC	WEC	5.37
Z1-043	Z1-043	19.7

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209502	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	133.44	135.14	DC	60.57

Bus #	Bus	MW Impact
274662	QUAD CITI;1U	35.3
274663	QUAD CITI;2U	36.21
274699	CORDOVA ;1C	6.18
274700	CORDOVA ;2C	6.18
274701	CORDOVA ;1S	6.96
274715	NELSON EC;1C	6.74
274716	NELSON EC;1S	9.31
274717	NELSON EC;2C	6.74
274718	NELSON EC;2S	9.31
274832	U4-027	15.61
290051	GSG-6; E	8.32
293513	O-009 C1	0.76
293514	O-009 C2	0.39
293515	O-009 C3	0.43
293516	O-009 E1	19.89
293517	O-009 E2	10.1
293518	O-009 E3	11.13
293712	O-029 C	0.89
293713	O-029 C	0.48
293714	O-029 C	0.45
293715	O-029 E	23.12
293716	O-029 E	12.68
293717	O-029 E	11.65
293771	O-035 E	5.91
294401	BSHIL;1U E	9.69
294410	BSHIL;2U E	9.69
294763	P-046 E	5.6
295109	WESTBROOK E	4.46
295110	SUBLETTE C	0.12
295111	SUBLETTE E	5.2
905471	W4-084	0.13
916211	Z1-072 E	4.47
916221	Z1-073 E	4.3
919221	AA1-146	54.78
919581	AA2-030	54.78
919621	AA2-039 C	2.36
919622	AA2-039 E	15.8
925161	AB2-173	9.77
925302	AB2-191 E	1.1
925581	AC1-033 C	1.59
925582	AC1-033 E	10.62

Bus #	Bus	MW Impact
926841	AC1-171 C O1	0.77
926842	AC1-171 E O1	5.14
927201	AC1-214 C O1	1.9
927202	AC1-214 E O1	6.03
933341	AC2-147 C	1.33
933342	AC2-147 E	2.18
933911	AD1-013 C	1.4
933912	AD1-013 E	2.24
934051	AD1-031 C O1	3.22
934052	AD1-031 E O1	5.26
934431	AD1-067 C	0.1
934432	AD1-067 E	0.44
934651	AD1-096 C	0.65
934652	AD1-096 E	1.05
934701	AD1-098 C O1	5.92
934702	AD1-098 E O1	4.32
934881	AD1-117 C	8.21
934882	AD1-117 E	5.48
937001	AD2-134 C	2.18
937002	AD2-134 E	8.99
937311	AD2-172 C	1.47
937312	AD2-172 E	2.03
937531	AD2-214 C	10.2
937532	AD2-214 E	4.8
938861	AE1-114 C O1	4.32
938862	AE1-114 E O1	16.5
939051	AE1-134 1	4.26
939061	AE1-134 2	4.26
939631	AE1-193 C O1	7.87
939632	AE1-193 E O1	52.7
939681	AE1-198 C O1	23.38
939682	AE1-198 E O1	19.87
939691	AE1-199	1.82
939921	AE1-228 C O1	7.34
939922	AE1-228 E O1	4.9
950181	J407 C	3.1
950182	J407 E	12.38
950211	J411 C	4.17
950212	J411 E	16.68
950221	J416 C	3.95
950222	J416 E	15.8
950401	J041 C	1.68
950402	J041 E	6.72
950471	J438 C	3.45
950472	J438 E	13.85
950491	J443 C	0.98
950492	J443 E	3.91
950501	J449 C	3.29
950502	J449 E	13.15
950522	J455 E	22.35
950541	G798 C	2.65
950542	G798 E	10.6

Bus #	Bus	MW Impact
950571	G870 C	2.88
950572	G870 E	11.51
950581	G947 C	1.79
950582	G947 E	7.14
950591	H008 C	0.73
950592	H008 E	2.93
950601	H009 C	2.88
950602	H009 E	11.53
950611	H021 C	2.59
950612	H021 E	10.34
950631	H096 C	0.77
950632	H096 E	3.06
950641	J026 C	0.75
950642	J026 E	2.99
950661	J097 C	3.88
950662	J097 E	15.5
950721	R420 C	3.71
950722	R420 E	14.86
950731	R490 C	0.18
950732	R490 E	0.71
950821	J274 C	1.46
950822	J274 E	5.84
950911	J289 C	0.29
950912	J289 E	0.88
950961	J329	4.75
951031	J344 C	3.12
951032	J344 E	9.36
951221	J475 C	3.81
951222	J475 E	15.25
951301	J495 C	3.62
951302	J495 E	10.86
951331	J498 C	5.12
951332	J498 E	20.48
951341	J499 C	5.0
951342	J499 E	20.01
951351	J500 C	6.94
951352	J500 E	27.77
951381	J504	5.89
951421	J514	3.52
951441	J523 C	2.25
951442	J523 E	1.5
951451	J524 C	4.63
951452	J524 E	3.09
951501	J529 C	3.56
951502	J529 E	14.26
951511	J530 C	5.62
951512	J530 E	22.48
951541	J534 C	3.71
951542	J534 E	14.82
951551	J535 C	3.12
951552	J535 E	12.48
951821	J541 C	4.58

Bus #	Bus	MW Impact
951822	J541 E	24.78
951841	J555 C	2.08
951842	J555 E	11.26
952021	J614 C	0.76
952022	J614 E	4.13
952191	J583 C	2.21
952192	J583 E	11.96
952211	J590 C	1.05
952212	J590 E	5.66
952231	J598 C	3.44
952232	J598 E	18.59
952441	J776 C	1.68
952442	J776 E	9.1
952451	J777 C	1.41
952452	J777 E	7.61
952461	J522	1.49
952491	J761 C	2.34
952492	J761 E	12.68
952561	J731 C	2.31
952562	J731 E	12.51
952571	J733 C	2.74
952572	J733 E	14.8
952671	J767 C	0.15
952672	J767 E	0.84
952681	J768 C	0.17
952682	J768 E	0.89
953001	J785 C	1.14
953002	J785 E	6.18
953011	J885 C	0.77
953012	J885 E	4.18
953082	J836 E	15.02
953231	J447 C	2.0
953232	J447 E	10.84
953391	J810	9.76
953821	J840 C	1.67
953822	J840 E	9.03
954091	J873 C	3.36
954092	J873 E	18.19
954121	J876 C	2.26
954122	J876 E	12.24
954131	J877	18.63
954201	J887 C	1.04
954202	J887 E	5.6
954301	J898 C	1.15
954302	J898 E	6.2
954521	J927 C	1.15
954522	J927 E	6.24
954702	J844 E	29.56
990901	L-005 E	13.36
AB2-013	AB2-013	7.86
CARR	CARR	0.06
CBM-S1	CBM-S1	5.15

Bus #	Bus	MW Impact
CBM-S2	CBM-S2	1.19
CBM-W1	CBM-W1	20.85
CBM-W2	CBM-W2	65.48
CIN	CIN	0.73
CPLE	CPLE	0.35
DEARBORN	DEARBORN	0.8
G-007	G-007	0.15
IPL	IPL	0.3
LGEE	LGEE	0.1
MEC	MEC	53.98
O-066	O-066	0.52
RENSSELAER	RENSSELAER	0.05
Z1-043	Z1-043	17.62

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209358	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	109.97	144.26	DC	94.3

Bus #	Bus	MW Impact
274832	U4-027	35.97
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.59
293514	O-009 C2	0.3
293515	O-009 C3	0.33
293516	O-009 E1	15.46
293517	O-009 E2	7.85
293518	O-009 E3	8.65
293771	O-035 E	9.4
294401	BSHIL;1U E	15.11
294410	BSHIL;2U E	15.11
916211	Z1-072 E	7.11
919621	AA2-039 C	3.68
919622	AA2-039 E	24.64
925581	AC1-033 C	2.48
925582	AC1-033 E	16.6
926821	AC1-168 C O1	0.99
926822	AC1-168 E O1	6.62
926841	AC1-171 C O1	0.91
926842	AC1-171 E O1	6.06
927201	AC1-214 C O1	3.02
927202	AC1-214 E O1	9.59
934051	AD1-031 C O1	5.02
934052	AD1-031 E O1	8.19
939631	AE1-193 C O1	12.26
939632	AE1-193 E O1	82.04
939681	AE1-198 C O1	36.4
939682	AE1-198 E O1	30.93
953201	J715 C	1.57
953202	J715 E	8.5
954201	J887 C	2.25
954202	J887 E	12.16
990901	L-005 E	20.1
AB2-013	AB2-013	4.89
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.01
BIG_CAJUN2	BIG_CAJUN2	0.03

Bus #	Bus	MW Impact
CBM-N	CBM-N	0.08
CBM-S1	CBM-S1	0.27
CBM-S2	CBM-S2	0.15
CBM-W2	CBM-W2	4.55
CIN	CIN	0.57
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	0.24
IPL	IPL	0.33
LGEE	LGEE	0.1
MECS	MECS	0.28
NYISO	NYISO	0.34
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.66
Z1-043	Z1-043	28.03

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210630	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	185.0	114.32	145.46	DC	57.6

Bus #	Bus	MW Impact
274832	U4-027	11.65
274848	CAMPGROVE;RU	0.47
274849	CRESCENT ;1U	0.55
274851	PROVIDENC;RU	0.84
274877	BISHOP HL;1U	0.35
274878	BISHOP HL;2U	0.35
293771	O-035 E	21.85
294401	BSHIL;1U E	9.24
294410	BSHIL;2U E	9.24
916211	Z1-072 E	16.53
919621	AA2-039 C	2.25
919622	AA2-039 E	15.08
925581	AC1-033 C	1.52
925582	AC1-033 E	10.18
927201	AC1-214 C O1	7.01
927202	AC1-214 E O1	22.29
934051	AD1-031 C O1	3.06
934052	AD1-031 E O1	5.0
939631	AE1-193 C O1	7.49
939632	AE1-193 E O1	50.12
939681	AE1-198 C O1	22.24
939682	AE1-198 E O1	18.89
954201	J887 C	1.33
954202	J887 E	7.22
990901	L-005 E	12.19
CARR	CARR	0.0
CBM-S1	CBM-S1	0.24
CBM-S2	CBM-S2	0.06
CBM-W1	CBM-W1	0.87
CBM-W2	CBM-W2	3.18
CIN	CIN	0.02
CPLE	CPLE	0.02
DEARBORN	DEARBORN	0.04
G-007	G-007	0.01
IPL	IPL	0.01
LGEE	LGEE	0.0
MEC	MEC	2.13
O-066	O-066	0.03
RENSSELAER	RENSSELAER	0.0
TILTON	TILTON	0.02

Bus #	Bus	MW Impact
TRIMBLE	TRIMBLE	0.0
WEC	WEC	0.02

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209217	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P4_074-38-L7413__	breaker	214.0	124.31	196.26	DC	153.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293771	O-035 E	4.15
294401	BSHIL;1U E	24.62
294410	BSHIL;2U E	24.62
916211	Z1-072 E	3.14
919621	AA2-039 C	6.0
919622	AA2-039 E	40.16
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.57
926841	AC1-171 C O1	1.39
926842	AC1-171 E O1	9.25
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.24
934051	AD1-031 C O1	8.19
934052	AD1-031 E O1	13.36
939631	AE1-193 C O1	20.01
939632	AE1-193 E O1	133.95
939681	AE1-198 C O1	59.43
939682	AE1-198 E O1	50.5
953201	J715 C	1.14
953202	J715 E	6.16
954201	J887 C	0.59
954202	J887 E	3.19
990901	L-005 E	32.55
BAYOU	BAYOU	0.02
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.26
CBM-S2	CBM-S2	0.14
CBM-W2	CBM-W2	4.06
CIN	CIN	0.54
COTTONWOOD	COTTONWOOD	0.09
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.21
G-007A	G-007A	0.22
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.23
NYISO	NYISO	0.3
O-066A	O-066A	0.1

Bus #	Bus	MW Impact
TATANKA	TATANKA	0.58
UNIONPOWER	UNIONPOWER	0.0
VFT	VFT	0.59
Z1-043	Z1-043	22.77

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209282	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	COMED_P4_133-38-BT1-2__	breaker	229.0	116.35	157.53	DC	94.3

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.59
293514	O-009 C2	0.3
293515	O-009 C3	0.33
293516	O-009 E1	15.46
293517	O-009 E2	7.85
293518	O-009 E3	8.65
293771	O-035 E	9.4
294401	BSHIL;1U E	15.11
294410	BSHIL;2U E	15.11
916211	Z1-072 E	7.11
919621	AA2-039 C	3.68
919622	AA2-039 E	24.64
925581	AC1-033 C	2.48
925582	AC1-033 E	16.6
926821	AC1-168 C O1	0.99
926822	AC1-168 E O1	6.62
926841	AC1-171 C O1	0.91
926842	AC1-171 E O1	6.06
927201	AC1-214 C O1	3.02
927202	AC1-214 E O1	9.59
934051	AD1-031 C O1	5.02
934052	AD1-031 E O1	8.19
939631	AE1-193 C O1	12.26
939632	AE1-193 E O1	82.04
939681	AE1-198 C O1	36.4
939682	AE1-198 E O1	30.93
953201	J715 C	1.57
953202	J715 E	8.5
954201	J887 C	2.25
954202	J887 E	12.16
990901	L-005 E	20.1
AB2-013	AB2-013	4.89
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.01
BIG_CAJUN2	BIG_CAJUN2	0.03
CBM-N	CBM-N	0.08

Bus #	Bus	MW Impact
CBM-S1	CBM-S1	0.27
CBM-S2	CBM-S2	0.15
CBM-W2	CBM-W2	4.55
CIN	CIN	0.57
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	0.24
IPL	IPL	0.33
LGEE	LGEE	0.1
MECS	MECS	0.28
NYISO	NYISO	0.34
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.66
Z1-043	Z1-043	28.03

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209232	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	COMED_P4_133-38-BT1-2__	breaker	256.0	125.08	180.26	DC	141.27

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.15
274877	BISHOP HL;1U	0.87
274878	BISHOP HL;2U	0.87
293513	O-009 C1	0.89
293514	O-009 C2	0.45
293515	O-009 C3	0.5
293516	O-009 E1	23.17
293517	O-009 E2	11.77
293518	O-009 E3	12.96
294401	BSHIL;1U E	22.64
294410	BSHIL;2U E	22.64
919621	AA2-039 C	5.52
919622	AA2-039 E	36.94
925581	AC1-033 C	3.72
925582	AC1-033 E	24.91
926841	AC1-171 C O1	1.32
926842	AC1-171 E O1	8.81
934051	AD1-031 C O1	7.52
934052	AD1-031 E O1	12.26
939631	AE1-193 C O1	18.36
939632	AE1-193 E O1	122.9
939681	AE1-198 C O1	54.53
939682	AE1-198 E O1	46.33
954201	J887 C	3.33
954202	J887 E	18.0
990901	L-005 E	30.02
AB2-013	AB2-013	6.15
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.52
CBM-S2	CBM-S2	0.2
CBM-W2	CBM-W2	7.47
CIN	CIN	0.55
CPLE	CPLE	0.08
FARMERCITY	FARMERCITY	0.08
G-007A	G-007A	0.23
IPL	IPL	0.32
LGEE	LGEE	0.1
MECS	MECS	0.11
NYISO	NYISO	0.31
O-066A	O-066A	0.11
TATANKA	TATANKA	0.4

Bus #	Bus	MW Impact
VFT	VFT	0.61
Z1-043	Z1-043	13.07

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209213	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	123.77	196.09	DC	360.18

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	2.91
274877	BISHOP HL;1U	2.21
274878	BISHOP HL;2U	2.21
293513	O-009 C1	2.26
293514	O-009 C2	1.15
293515	O-009 C3	1.27
293516	O-009 E1	59.09
293517	O-009 E2	30.01
293518	O-009 E3	33.05
294401	BSHIL;1U E	57.74
294410	BSHIL;2U E	57.74
919621	AA2-039 C	14.07
919622	AA2-039 E	94.19
926841	AC1-171 C O1	3.11
926842	AC1-171 E O1	20.77
934051	AD1-031 C O1	19.16
934052	AD1-031 E O1	31.26
939631	AE1-193 C O1	46.82
939632	AE1-193 E O1	313.36
939681	AE1-198 C O1	139.03
939682	AE1-198 E O1	118.14
990901	L-005 E	75.92
BAYOU	BAYOU	0.08
BIG_CAJUN1	BIG_CAJUN1	0.09
BIG_CAJUN2	BIG_CAJUN2	0.18
CBM-N	CBM-N	0.04
CBM-S1	CBM-S1	0.15
CBM-S2	CBM-S2	0.08
CBM-W2	CBM-W2	3.07
CHOCTAW	CHOCTAW	0.02
CIN	CIN	0.58
COTTONWOOD	COTTONWOOD	0.34
CPLE	CPLE	0.03
FARMERCITY	FARMERCITY	0.27
G-007A	G-007A	0.14
IPL	IPL	0.32
LGEE	LGEE	0.09
MECS	MECS	0.06
NYISO	NYISO	0.19
O-066A	O-066A	0.07
TATANKA	TATANKA	0.67

Bus #	Bus	MW Impact
UNIONPOWER	UNIONPOWER	0.04
VFT	VFT	0.37
Z1-043	Z1-043	16.91

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209370	272110	NORMANDY ; B	CE	293710	O29	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	107.71	142.0	DC	94.3

Bus #	Bus	MW Impact
274832	U4-027	35.97
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.59
293514	O-009 C2	0.3
293515	O-009 C3	0.33
293516	O-009 E1	15.46
293517	O-009 E2	7.85
293518	O-009 E3	8.65
293771	O-035 E	9.4
294401	BSHIL;1U E	15.11
294410	BSHIL;2U E	15.11
916211	Z1-072 E	7.11
919621	AA2-039 C	3.68
919622	AA2-039 E	24.64
925581	AC1-033 C	2.48
925582	AC1-033 E	16.6
926821	AC1-168 C O1	0.99
926822	AC1-168 E O1	6.62
926841	AC1-171 C O1	0.91
926842	AC1-171 E O1	6.06
927201	AC1-214 C O1	3.02
927202	AC1-214 E O1	9.59
934051	AD1-031 C O1	5.02
934052	AD1-031 E O1	8.19
939631	AE1-193 C O1	12.26
939632	AE1-193 E O1	82.04
939681	AE1-198 C O1	36.4
939682	AE1-198 E O1	30.93
953201	J715 C	1.57
953202	J715 E	8.5
954201	J887 C	2.25
954202	J887 E	12.16
990901	L-005 E	20.1
AB2-013	AB2-013	4.89
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.01
BIG_CAJUN2	BIG_CAJUN2	0.03

Bus #	Bus	MW Impact
CBM-N	CBM-N	0.08
CBM-S1	CBM-S1	0.27
CBM-S2	CBM-S2	0.15
CBM-W2	CBM-W2	4.55
CIN	CIN	0.57
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	0.24
IPL	IPL	0.33
LGEE	LGEE	0.1
MECS	MECS	0.28
NYISO	NYISO	0.34
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.66
Z1-043	Z1-043	28.03

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210724	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	202.0	120.29	128.1	DC	34.99

Bus #	Bus	MW Impact
274832	U4-027	5.77
274849	CRESCENT ;1U	0.48
274851	PROVIDENC;RU	0.73
293771	O-035 E	19.05
294401	BSHIL;1U E	5.63
294410	BSHIL;2U E	5.63
916211	Z1-072 E	14.42
919621	AA2-039 C	1.37
919622	AA2-039 E	9.18
925581	AC1-033 C	0.93
925582	AC1-033 E	6.22
927201	AC1-214 C O1	6.12
927202	AC1-214 E O1	19.44
934051	AD1-031 C O1	1.86
934052	AD1-031 E O1	3.04
936511	AD2-066 C O1	57.02
936512	AD2-066 E O1	38.02
939631	AE1-193 C O1	4.55
939632	AE1-193 E O1	30.44
939681	AE1-198 C O1	13.51
939682	AE1-198 E O1	11.48
954201	J887 C	0.81
954202	J887 E	4.36
990901	L-005 E	7.35
BLUEG	BLUEG	0.21
CANNELTON	CANNELTON	0.01
CARR	CARR	0.01
CATAWBA	CATAWBA	0.0
CBM-S1	CBM-S1	0.07
CBM-W1	CBM-W1	1.35
CBM-W2	CBM-W2	0.57
COFFEEN	COFFEEN	0.02
DEARBORN	DEARBORN	0.04
ELMERSMITH	ELMERSMITH	0.01
G-007	G-007	0.03
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.01
MEC	MEC	2.28
NEWTON	NEWTON	0.05
O-066	O-066	0.11

Bus #	Bus	MW Impact
RENSSELAER	RENSSELAER	0.01
TILTON	TILTON	0.12
TRIMBLE	TRIMBLE	0.02
WEC	WEC	0.17

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209222	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	115.76	185.89	DC	161.28

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.86
274877	BISHOP HL;1U	0.99
274878	BISHOP HL;2U	0.99
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.92
293517	O-009 E2	5.04
293518	O-009 E3	5.55
293771	O-035 E	3.84
294401	BSHIL;1U E	25.83
294410	BSHIL;2U E	25.83
916211	Z1-072 E	2.91
919621	AA2-039 C	6.3
919622	AA2-039 E	42.14
926821	AC1-168 C O1	0.81
926822	AC1-168 E O1	5.43
926841	AC1-171 C O1	7.35
926842	AC1-171 E O1	49.06
927201	AC1-214 C O1	1.23
927202	AC1-214 E O1	3.92
934051	AD1-031 C O1	8.58
934052	AD1-031 E O1	14.0
939631	AE1-193 C O1	20.97
939632	AE1-193 E O1	140.31
939681	AE1-198 C O1	62.25
939682	AE1-198 E O1	52.9
953201	J715 C	1.0
953202	J715 E	5.43
990901	L-005 E	48.61
BAYOU	BAYOU	0.19
BIG_CAJUN1	BIG_CAJUN1	0.3
BIG_CAJUN2	BIG_CAJUN2	0.61
BLUEG	BLUEG	0.9
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.07
CARR	CARR	0.04
CATAWBA	CATAWBA	0.05
CBM-W1	CBM-W1	1.78
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03

Bus #	Bus	MW Impact
CHOCTAW	CHOCTAW	0.21
COFFEEN	COFFEEN	0.37
COTTONWOOD	COTTONWOOD	0.77
DEARBORN	DEARBORN	0.03
DUCKCREEK	DUCKCREEK	1.03
EDWARDS	EDWARDS	0.71
ELMERSMITH	ELMERSMITH	0.12
G-007	G-007	0.11
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.17
MEC	MEC	1.51
NEWTON	NEWTON	0.65
O-066	O-066	0.38
PRAIRIE	PRAIRIE	1.06
RENSSELAER	RENSSELAER	0.03
SANTEETLA	SANTEETLA	0.03
SMITHLAND	SMITHLAND	0.06
TILTON	TILTON	0.39
TRIMBLE	TRIMBLE	0.1
TVA	TVA	0.36
UNIONPOWER	UNIONPOWER	0.14
WEC	WEC	0.44
Z1-043	Z1-043	21.92

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209422	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	COMED_P4_155-38-L15508_	breaker	426.0	114.52	136.64	DC	94.2

Bus #	Bus	MW Impact
274832	U4-027	32.62
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.92
293514	O-009 C2	0.46
293515	O-009 C3	0.51
293516	O-009 E1	23.89
293517	O-009 E2	12.13
293518	O-009 E3	13.36
293712	O-029 C	2.51
293713	O-029 C	1.38
293714	O-029 C	1.27
293715	O-029 E	65.59
293716	O-029 E	35.96
293717	O-029 E	33.05
293771	O-035 E	9.37
294401	BSHIL;1U E	15.08
294410	BSHIL;2U E	15.08
916211	Z1-072 E	7.09
919621	AA2-039 C	3.68
919622	AA2-039 E	24.6
925581	AC1-033 C	2.47
925582	AC1-033 E	16.56
926821	AC1-168 C O1	0.98
926822	AC1-168 E O1	6.58
926841	AC1-171 C O1	0.93
926842	AC1-171 E O1	6.19
927201	AC1-214 C O1	3.01
927202	AC1-214 E O1	9.56
934051	AD1-031 C O1	5.01
934052	AD1-031 E O1	8.18
937531	AD2-214 C	20.52
937532	AD2-214 E	9.66
939631	AE1-193 C O1	12.25
939632	AE1-193 E O1	81.96
939681	AE1-198 C O1	36.36
939682	AE1-198 E O1	30.9
953201	J715 C	1.5

Bus #	Bus	MW Impact
953202	J715 E	8.11
954201	J887 C	2.19
954202	J887 E	11.87
990901	L-005 E	20.12
AB2-013	AB2-013	5.37
CBM-N	CBM-N	0.09
CBM-S1	CBM-S1	0.96
CBM-S2	CBM-S2	0.34
CBM-W2	CBM-W2	12.33
CIN	CIN	0.71
CPLE	CPLE	0.13
G-007A	G-007A	0.3
IPL	IPL	0.41
LGEE	LGEE	0.14
MEC	MEC	2.07
MECS	MECS	0.04
NYISO	NYISO	0.41
O-066A	O-066A	0.14
VFT	VFT	0.82
Z1-043	Z1-043	27.98

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209207	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	143.45	207.79	DC	147.99

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.2
274877	BISHOP HL;1U	0.91
274878	BISHOP HL;2U	0.91
293513	O-009 C1	2.25
293514	O-009 C2	1.14
293515	O-009 C3	1.26
293516	O-009 E1	58.62
293517	O-009 E2	29.78
293518	O-009 E3	32.79
293771	O-035 E	3.98
294401	BSHIL;1U E	23.67
294410	BSHIL;2U E	23.67
916211	Z1-072 E	3.01
919621	AA2-039 C	5.77
919622	AA2-039 E	38.61
926821	AC1-168 C O1	0.8
926822	AC1-168 E O1	5.34
926841	AC1-171 C O1	1.33
926842	AC1-171 E O1	8.89
927201	AC1-214 C O1	1.28
927202	AC1-214 E O1	4.06
934051	AD1-031 C O1	7.87
934052	AD1-031 E O1	12.85
939631	AE1-193 C O1	19.24
939632	AE1-193 E O1	128.75
939681	AE1-198 C O1	57.12
939682	AE1-198 E O1	48.54
953201	J715 C	1.09
953202	J715 E	5.92
990901	L-005 E	31.29
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.02
BIG_CAJUN2	BIG_CAJUN2	0.05
CBM-N	CBM-N	0.05
CBM-S1	CBM-S1	0.2
CBM-S2	CBM-S2	0.1
CBM-W2	CBM-W2	3.54
CIN	CIN	0.47
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.04
FARMERCITY	FARMERCITY	0.2

Bus #	Bus	MW Impact
G-007A	G-007A	0.16
IPL	IPL	0.27
LGEE	LGEE	0.08
MECS	MECS	0.14
NYISO	NYISO	0.22
O-066A	O-066A	0.07
TATANKA	TATANKA	0.56
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.43
Z1-043	Z1-043	21.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
819178	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	135.93	137.39	DC	42.53

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.79
274722	S-055 E	9.15
274808	UNIV PK N;4U	1.62
274809	UNIV PK N;5U	1.62
274811	UNIV PK N;7U	1.62
274812	UNIV PK N;8U	1.62
274814	UNIV PK N;0U	1.62
274815	UNIV PK N;XU	1.62
274832	U4-027	8.61
274859	EASYR;U1 E	8.84
274860	EASYR;U2 E	8.84
274888	PILOT HIL;1E	14.86
274890	CAYUG;1U E	10.7
274891	CAYUG;2U E	10.7
275149	KEMPTON ;1E	14.86
290021	O50 E	15.62
290051	GSG-6; E	8.43
290108	LEEDK;1U E	19.61
293061	N-015 E	12.6
293516	O-009 E1	7.26
293517	O-009 E2	3.69
293518	O-009 E3	4.06
293644	O22 E1	7.88
293645	O22 E2	15.3
293715	O-029 E	7.84
293716	O-029 E	4.3
293717	O-029 E	3.95
293771	O-035 E	5.09
294392	P-010 E	16.0
294401	BSHIL;1U E	6.8
294410	BSHIL;2U E	6.8
294763	P-046 E	7.56
295109	WESTBROOK E	4.51
295111	SUBLETTE E	2.08
910542	X3-005 E	0.51
914641	Y2-103	36.59
915011	Y3-013 1	3.05
915021	Y3-013 2	3.05
915031	Y3-013 3	3.05
916211	Z1-072 E	3.85

Bus #	Bus	MW Impact
916221	Z1-073 E	4.35
916502	Z1-106 E1	1.02
916504	Z1-106 E2	1.02
916512	Z1-107 E	2.17
916522	Z1-108 E	2.02
918052	AA1-018 E	14.29
919221	AA1-146	14.12
919581	AA2-030	14.12
919621	AA2-039 C	1.66
919622	AA2-039 E	11.1
920272	AA2-123 E	1.98
924471	AB2-096	34.27
925161	AB2-173	2.52
925302	AB2-191 E	1.12
925581	AC1-033 C	1.11
925582	AC1-033 E	7.46
925881	AC1-067 O1	97.44
926311	AC1-109 1	1.55
926321	AC1-109 2	1.55
926331	AC1-110 1	1.54
926341	AC1-110 2	1.54
926351	AC1-111 1	0.62
926361	AC1-111 2	0.62
926371	AC1-111 3	0.62
926381	AC1-111 4	0.62
926391	AC1-111 5	0.62
926401	AC1-111 6	0.62
926431	AC1-114	1.92
926821	AC1-168 C O1	0.92
926822	AC1-168 E O1	6.18
927091	AC1-204 1	59.17
927101	AC1-204 2	59.21
927201	AC1-214 C O1	1.63
927202	AC1-214 E O1	5.19
927451	AC1-142A 1	3.45
927461	AC1-142A 2	3.45
927511	AC1-113 1	0.96
927521	AC1-113 2	0.96
927531	AC1-185 1	0.55
927541	AC1-185 2	0.55
927551	AC1-185 3	0.55
927561	AC1-185 4	0.55
927571	AC1-185 5	0.55
927581	AC1-185 6	0.55
927591	AC1-185 7	0.55
927601	AC1-185 8	0.55
930481	AB1-089	53.11
930501	AB1-091 O1	57.12
930741	AB1-122 1O1	58.21
930751	AB1-122 2O1	59.68
932881	AC2-115 1	1.92
932891	AC2-115 2	1.92

Bus #	Bus	MW Impact
932921	AC2-116	0.67
932931	AC2-117	10.39
933341	AC2-147 C	0.7
933342	AC2-147 E	1.15
933411	AC2-154 C	2.02
933412	AC2-154 E	3.29
933431	AC2-156 C O1	0.77
933432	AC2-156 E O1	1.26
933911	AD1-013 C	1.48
933912	AD1-013 E	2.37
933931	AD1-016 C	0.75
933932	AD1-016 E	1.23
934051	AD1-031 C O1	2.26
934052	AD1-031 E O1	3.69
934101	AD1-039 1	5.7
934111	AD1-039 2	5.85
934401	AD1-064 C O1	2.59
934402	AD1-064 E O1	12.13
934431	AD1-067 C	0.11
934432	AD1-067 E	0.44
934651	AD1-096 C	0.72
934652	AD1-096 E	1.17
934701	AD1-098 C O1	5.55
934702	AD1-098 E O1	4.05
934721	AD1-100 C	15.58
934722	AD1-100 E	72.69
934871	AD1-116 C	0.83
934872	AD1-116 E	1.36
934881	AD1-117 C	4.32
934882	AD1-117 E	2.88
934971	AD1-129 C	0.73
934972	AD1-129 E	0.49
935001	AD1-133 C O1	16.67
935002	AD1-133 E O1	11.11
936291	AD2-038 C O1	1.97
936292	AD2-038 E O1	13.19
936371	AD2-047 C O1	1.8
936372	AD2-047 E O1	19.42
936461	AD2-060	2.12
936511	AD2-066 C O1	6.83
936512	AD2-066 E O1	4.55
936781	AD2-101 C	3.51
936782	AD2-101 E	16.41
936791	AD2-102 C	9.71
936792	AD2-102 E	9.33
936961	AD2-130	0.46
937001	AD2-134 C	2.2
937002	AD2-134 E	9.1
937031	AD2-137 C O1	2.69
937032	AD2-137 E O1	12.6
937051	AD2-140 C O1	2.69
937052	AD2-140 E O1	12.61

Bus #	Bus	MW Impact
937061	AD2-141 C O1	2.68
937062	AD2-141 E O1	12.63
937071	AD2-142 C O1	5.39
937072	AD2-142 E O1	25.22
937121	AD2-148 C O1	2.74
937122	AD2-148 E O1	12.83
937131	AD2-149 C O1	2.74
937132	AD2-149 E O1	12.83
937141	AD2-150 C O1	2.74
937142	AD2-150 E O1	12.83
937181	AD2-155 C O1	2.74
937182	AD2-155 E O1	12.83
937311	AD2-172 C	1.98
937312	AD2-172 E	2.74
937321	AD2-175 C	12.77
937322	AD2-175 E	8.51
937331	AD2-176 C O1	5.94
937332	AD2-176 E O1	3.96
937401	AD2-194 1	6.36
937411	AD2-194 2	6.37
937531	AD2-214 C	3.53
937532	AD2-214 E	1.66
938012	AE1-002 E O1	5.4
938511	AE1-070 1	7.48
938521	AE1-070 2	6.84
938851	AE1-113 C O1	7.07
938852	AE1-113 E O1	22.22
938861	AE1-114 C O1	2.9
938862	AE1-114 E O1	11.07
939051	AE1-134 1	1.1
939061	AE1-134 2	1.1
939321	AE1-163 C O1	4.95
939322	AE1-163 E O1	30.42
939351	AE1-166 C O1	8.28
939352	AE1-166 E O1	7.64
939401	AE1-172 C O1	4.91
939402	AE1-172 E O1	22.97
939631	AE1-193 C O1	5.53
939632	AE1-193 E O1	37.0
939681	AE1-198 C O1	16.41
939682	AE1-198 E O1	13.95
939691	AE1-199	1.93
939701	AE1-201 C	1.62
939702	AE1-201 E	0.36
939732	AE1-204 E	0.24
939861	AE1-222 1	64.28
939871	AE1-222 2	65.91
939921	AE1-228 C O1	8.11
939922	AE1-228 E O1	5.4
939961	AE1-233 C O1	1.88
939962	AE1-233 E O1	7.77
940101	AE1-252 C O1	8.36

Bus #	Bus	MW Impact
940102	AE1-252 E O1	5.58
990901	L-005 E	5.05
AB2-013	AB2-013	12.84
AE1-033	AE1-033	14.59
BLUEG	BLUEG	4.41
CALDERWOOD	CALDERWOOD	0.05
CANNELTON	CANNELTON	0.06
CARR	CARR	0.61
CATAWBA	CATAWBA	0.23
CBM-S1	CBM-S1	1.22
CBM-W1	CBM-W1	21.89
CBM-W2	CBM-W2	43.2
CHEOAH	CHEOAH	0.05
CHILHOWEE	CHILHOWEE	0.01
DEARBORN	DEARBORN	2.62
ELMERSMITH	ELMERSMITH	0.06
G-007	G-007	1.71
GIBSON	GIBSON	0.02
HAMLET	HAMLET	0.88
MEC	MEC	30.08
O-066	O-066	5.77
RENSSELAER	RENSSELAER	0.49
SANTEETLA	SANTEETLA	0.02
TRIMBLE	TRIMBLE	0.52
WEC	WEC	6.46
Z1-043	Z1-043	22.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209267	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P4_074-38-L7413__	breaker	331.0	115.55	162.03	DC	153.84

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293513	O-009 C1	2.34
293514	O-009 C2	1.18
293515	O-009 C3	1.31
293516	O-009 E1	60.95
293517	O-009 E2	30.96
293518	O-009 E3	34.09
293771	O-035 E	4.14
294401	BSHIL;1U E	24.6
294410	BSHIL;2U E	24.6
916211	Z1-072 E	3.13
919621	AA2-039 C	6.0
919622	AA2-039 E	40.13
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.55
926841	AC1-171 C O1	1.38
926842	AC1-171 E O1	9.24
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.22
934051	AD1-031 C O1	8.18
934052	AD1-031 E O1	13.35
939631	AE1-193 C O1	20.0
939632	AE1-193 E O1	133.85
939681	AE1-198 C O1	59.38
939682	AE1-198 E O1	50.46
953201	J715 C	1.14
953202	J715 E	6.16
990901	L-005 E	32.53
BAYOU	BAYOU	0.04
BIG_CAJUN1	BIG_CAJUN1	0.04
BIG_CAJUN2	BIG_CAJUN2	0.07
CBM-N	CBM-N	0.05
CBM-S1	CBM-S1	0.19
CBM-S2	CBM-S2	0.1
CBM-W2	CBM-W2	3.54
CIN	CIN	0.48
COTTONWOOD	COTTONWOOD	0.18
CPLE	CPLE	0.04

Bus #	Bus	MW Impact
FARMERCITY	FARMERCITY	0.22
G-007A	G-007A	0.17
IPL	IPL	0.28
LGEE	LGEE	0.08
MECS	MECS	0.15
NYISO	NYISO	0.23
O-066A	O-066A	0.08
TATANKA	TATANKA	0.6
UNIONPOWER	UNIONPOWER	0.02
VFT	VFT	0.45
Z1-043	Z1-043	22.72

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210548	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	275.0	184.18	223.1	DC	107.01

Bus #	Bus	MW Impact
274832	U4-027	31.91
274848	CAMPGROVE;RU	0.87
274849	CRESCENT ;1U	0.27
274851	PROVIDENC;RU	0.41
274877	BISHOP HL;1U	0.66
274878	BISHOP HL;2U	0.66
293513	O-009 C1	1.66
293514	O-009 C2	0.84
293515	O-009 C3	0.93
293516	O-009 E1	43.42
293517	O-009 E2	22.06
293518	O-009 E3	24.29
293712	O-029 C	2.16
293713	O-029 C	1.18
293714	O-029 C	1.09
293715	O-029 E	56.29
293716	O-029 E	30.87
293717	O-029 E	28.37
293771	O-035 E	10.61
294401	BSHIL;1U E	17.1
294410	BSHIL;2U E	17.1
916211	Z1-072 E	8.03
919621	AA2-039 C	4.17
919622	AA2-039 E	27.9
925581	AC1-033 C	2.8
925582	AC1-033 E	18.76
926821	AC1-168 C O1	1.12
926822	AC1-168 E O1	7.49
926841	AC1-171 C O1	1.03
926842	AC1-171 E O1	6.89
927201	AC1-214 C O1	3.41
927202	AC1-214 E O1	10.83
934051	AD1-031 C O1	5.69
934052	AD1-031 E O1	9.29
939631	AE1-193 C O1	13.91
939632	AE1-193 E O1	93.1
939681	AE1-198 C O1	41.31
939682	AE1-198 E O1	35.1
953201	J715 C	1.77
953202	J715 E	9.57

Bus #	Bus	MW Impact
954201	J887 C	2.54
954202	J887 E	13.72
990901	L-005 E	22.79
AB2-013	AB2-013	5.59
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.34
CBM-S2	CBM-S2	0.16
CBM-W2	CBM-W2	5.87
CIN	CIN	0.61
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.22
G-007A	G-007A	0.23
IPL	IPL	0.35
LGEE	LGEE	0.11
MECS	MECS	0.2
NYISO	NYISO	0.32
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
VFT	VFT	0.62
Z1-043	Z1-043	31.71

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
819145	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	AEP_P4_#3128_05EUGENE 345_A2	breaker	1466.0	144.31	145.69	DC	44.24

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	6.24
274650	KINCAID ;1U	14.71
274651	KINCAID ;2U	14.73
274832	U4-027	8.54
274853	TWINGROVE;U1	0.74
274854	TWINGROVE;U2	0.74
274859	EASYR;U1 E	6.8
274860	EASYR;U2 E	6.8
274890	CAYUG;1U E	10.14
274891	CAYUG;2U E	10.14
276150	W2-048 E	2.05
290021	O50 E	10.78
290051	GSG-6; E	5.68
290108	LEEDK;1U E	12.4
290261	S-027 E	19.36
290265	S-028 E	19.36
293516	O-009 E1	6.47
293517	O-009 E2	3.29
293518	O-009 E3	3.62
293644	O22 E1	4.9
293645	O22 E2	9.51
293715	O-029 E	6.65
293716	O-029 E	3.65
293717	O-029 E	3.35
293771	O-035 E	5.18
294401	BSHIL;1U E	7.08
294410	BSHIL;2U E	7.08
294763	P-046 E	5.38
295109	WESTBROOK E	3.04
295111	SUBLETTE E	1.65
296125	R-030 C3	3.34
296128	R-030 E3	13.34
296271	R-030 C2	3.3
296272	R-030 E2	13.18
296308	R-030 C1	3.3
296309	R-030 E1	13.18
905081	W4-005 C	0.98
905082	W4-005 E	42.62
909052	X2-022 E	28.51
916211	Z1-072 E	3.92
916221	Z1-073 E	2.93

Bus #	Bus	MW Impact
917502	Z2-087 E	17.32
918052	AA1-018 E	7.91
919221	AA1-146	11.65
919581	AA2-030	11.65
919621	AA2-039 C	1.73
919622	AA2-039 E	11.55
920272	AA2-123 E	1.22
924041	AB2-047 C O1	3.3
924042	AB2-047 E O1	22.1
924261	AB2-070 C O1	3.84
924262	AB2-070 E O1	25.68
924471	AB2-096	21.83
925161	AB2-173	2.08
925302	AB2-191 E	0.75
925581	AC1-033 C	1.16
925582	AC1-033 E	7.76
925771	AC1-053 C	3.87
925772	AC1-053 E	25.93
926431	AC1-114	1.3
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.54
926841	AC1-171 C O1	1.14
926842	AC1-171 E O1	7.61
927201	AC1-214 C O1	1.66
927202	AC1-214 E O1	5.29
927511	AC1-113 1	0.65
927521	AC1-113 2	0.65
927531	AC1-185 1	0.43
927541	AC1-185 2	0.43
927551	AC1-185 3	0.43
927561	AC1-185 4	0.43
927571	AC1-185 5	0.43
927581	AC1-185 6	0.43
927591	AC1-185 7	0.43
927601	AC1-185 8	0.43
930481	AB1-089	35.32
930741	AB1-122 1O1	34.94
932881	AC2-115 1	1.3
932891	AC2-115 2	1.3
932921	AC2-116	0.45
933341	AC2-147 C	0.54
933342	AC2-147 E	0.88
933911	AD1-013 C	0.99
933912	AD1-013 E	1.59
933931	AD1-016 C	0.46
933932	AD1-016 E	0.76
934051	AD1-031 C O1	2.35
934052	AD1-031 E O1	3.84
934101	AD1-039 1	3.42
934401	AD1-064 C O1	1.64
934402	AD1-064 E O1	7.66
934431	AD1-067 C	0.07

Bus #	Bus	MW Impact
934432	AD1-067 E	0.3
934651	AD1-096 C	0.51
934652	AD1-096 E	0.83
934701	AD1-098 C O1	3.77
934702	AD1-098 E O1	2.75
934871	AD1-116 C	0.46
934872	AD1-116 E	0.75
934881	AD1-117 C	3.31
934882	AD1-117 E	2.21
934971	AD1-129 C	0.47
934972	AD1-129 E	0.31
935001	AD1-133 C O1	14.12
935002	AD1-133 E O1	9.41
935141	AD1-148	7.45
936291	AD2-038 C O1	1.34
936292	AD2-038 E O1	8.98
936511	AD2-066 C O1	4.76
936512	AD2-066 E O1	3.17
936771	AD2-100 C O1	21.12
936772	AD2-100 E O1	14.08
936791	AD2-102 C	6.72
936792	AD2-102 E	6.46
936972	AD2-131 E O1	8.38
937001	AD2-134 C	1.48
937002	AD2-134 E	6.13
937161	AD2-153 C O1	3.2
937162	AD2-153 E O1	15.0
937171	AD2-154 C O1	3.2
937172	AD2-154 E O1	15.0
937211	AD2-159 C	4.61
937212	AD2-159 E	21.56
937311	AD2-172 C	1.41
937312	AD2-172 E	1.95
937331	AD2-176 C O1	3.65
937332	AD2-176 E O1	2.44
937531	AD2-214 C	3.23
937532	AD2-214 E	1.52
938851	AE1-113 C O1	4.88
938852	AE1-113 E O1	15.33
938861	AE1-114 C O1	2.16
938862	AE1-114 E O1	8.27
939051	AE1-134 1	0.91
939061	AE1-134 2	0.91
939321	AE1-163 C O1	3.37
939322	AE1-163 E O1	20.72
939401	AE1-172 C O1	4.02
939402	AE1-172 E O1	18.81
939631	AE1-193 C O1	5.75
939632	AE1-193 E O1	38.49
939681	AE1-198 C O1	17.08
939682	AE1-198 E O1	14.51
939691	AE1-199	1.29

Bus #	Bus	MW Impact
939701	AE1-201 C	1.0
939702	AE1-201 E	0.22
939741	AE1-205 C O1	8.33
939742	AE1-205 E O1	11.5
939861	AE1-222 1	38.59
939921	AE1-228 C O1	5.41
939922	AE1-228 E O1	3.61
939961	AE1-233 C O1	1.15
939962	AE1-233 E O1	4.76
940101	AE1-252 C O1	6.85
940102	AE1-252 E O1	4.57
950291	J291	3.2
950701	J196 C	1.33
950702	J196 E	5.3
951001	J339	6.03
951741	J474 C	2.02
951742	J474 E	10.95
952251	J641	10.35
952271	J644	9.57
952321	J734	5.07
952651	J756 C	2.46
952652	J756 E	13.33
952871	J757 C	4.06
952872	J757 E	21.98
953241	J467 C	2.76
953242	J467 E	14.91
953371	J808	9.06
953401	J811	17.76
953431	J853	11.11
953641	J813	43.81
953651	J815	32.11
953671	J817	10.67
953741	J826 C	1.65
953742	J826 E	8.94
953801	J835 C	2.68
953802	J835 E	14.48
953851	J845 C	1.72
953852	J845 E	9.32
953881	J848 C	5.27
953882	J848 E	28.51
953951	J859	9.79
954081	J872 C	4.44
954082	J872 E	24.03
954181	J884	7.67
954411	J912	14.24
954681	J949	38.92
954721	J750 C	2.11
954722	J750 E	11.4
954761	J468 C	7.08
954762	J468 E	28.32
990901	L-005 E	11.18
AB2-013	AB2-013	13.3

Bus #	Bus	MW Impact
AE1-033	AE1-033	10.55
AE1-042	AE1-042	10.08
BLUEG	BLUEG	10.38
CARR	CARR	0.29
CBM-S1	CBM-S1	13.17
CBM-S2	CBM-S2	2.35
CBM-W1	CBM-W1	28.23
CBM-W2	CBM-W2	199.79
CIN	CIN	3.85
CPLE	CPLE	0.56
DEARBORN	DEARBORN	0.69
G-007	G-007	0.8
GIBSON	GIBSON	0.02
MEC	MEC	45.61
O-066	O-066	2.69
RENSSELAER	RENSSELAER	0.23
TRIMBLE	TRIMBLE	1.31
WEC	WEC	4.13
Z1-043	Z1-043	21.97

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
209227	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P4_074-38-L7413__	breaker	214.0	109.97	181.91	DC	153.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293771	O-035 E	4.15
294401	BSHIL;1U E	24.62
294410	BSHIL;2U E	24.62
916211	Z1-072 E	3.14
919621	AA2-039 C	6.0
919622	AA2-039 E	40.16
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.57
926841	AC1-171 C O1	1.39
926842	AC1-171 E O1	9.25
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.24
934051	AD1-031 C O1	8.19
934052	AD1-031 E O1	13.36
939631	AE1-193 C O1	20.01
939632	AE1-193 E O1	133.95
939681	AE1-198 C O1	59.43
939682	AE1-198 E O1	50.5
953201	J715 C	1.14
953202	J715 E	6.16
954201	J887 C	0.59
954202	J887 E	3.19
990901	L-005 E	32.55
BAYOU	BAYOU	0.02
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.26
CBM-S2	CBM-S2	0.14
CBM-W2	CBM-W2	4.06
CIN	CIN	0.54
COTTONWOOD	COTTONWOOD	0.09
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.21
G-007A	G-007A	0.22
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.23
NYISO	NYISO	0.3
O-066A	O-066A	0.1

Bus #	Bus	MW Impact
TATANKA	TATANKA	0.58
UNIONPOWER	UNIONPOWER	0.0
VFT	VFT	0.59
Z1-043	Z1-043	22.77

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
210564	930740	AB1-122 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA	tower	1195.0	132.15	133.61	DC	38.78

Bus #	Bus	MW Impact
274677	POWERTON ;5U	26.24
274678	POWERTON ;6U	26.31
274861	TOP CROP ;1U	0.7
274862	TOP CROP ;2U	1.35
274879	MINONK ;1U	0.74
290021	O50 E	19.44
293644	O22 E1	18.15
293645	O22 E2	35.22
294401	BSHIL;1U E	6.21
294410	BSHIL;2U E	6.21
918051	AA1-018 C	0.67
918052	AA1-018 E	29.1
919621	AA2-039 C	1.51
919622	AA2-039 E	10.13
925581	AC1-033 C	1.02
925582	AC1-033 E	6.81
926841	AC1-171 C O1	0.85
926842	AC1-171 E O1	5.66
930741	AB1-122 1O1	524.81
934051	AD1-031 C O1	2.06
934052	AD1-031 E O1	3.37
934101	AD1-039 1	51.43
934871	AD1-116 C	1.69
934872	AD1-116 E	2.77
936291	AD2-038 C O1	4.35
936292	AD2-038 E O1	29.11
938851	AE1-113 C O1	8.79
938852	AE1-113 E O1	27.65
939321	AE1-163 C O1	10.93
939322	AE1-163 E O1	67.15
939631	AE1-193 C O1	5.04
939632	AE1-193 E O1	33.74
939681	AE1-198 C O1	14.97
939682	AE1-198 E O1	12.72
939861	AE1-222 1	579.57
954702	J844 E	27.32
990901	L-005 E	9.43
AB2-013	AB2-013	28.99
CARR	CARR	0.04
CBM-S1	CBM-S1	3.25

Bus #	Bus	MW Impact
CBM-S2	CBM-S2	0.73
CBM-W1	CBM-W1	6.57
CBM-W2	CBM-W2	48.55
CIN	CIN	1.0
CPLE	CPLE	0.21
DEARBORN	DEARBORN	0.55
G-007	G-007	0.1
IPL	IPL	0.49
LGEE	LGEE	0.12
MEC	MEC	20.19
O-066	O-066	0.35
RENSSELAER	RENSSELAER	0.03
Z1-043	Z1-043	18.2

Affected Systems

MISO

MISO Impacts to be determined during later study phases (as applicable).

Contingency Name	Contingency Definition
COMED_P2-2_001_LA-138B__1	CONTINGENCY 'COMED_P2-2_001_LA-138B__1' DISCONNECT BUS 271908 / LASCO STA; B 138 END
COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA	CONTINGENCY 'COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA' TRIP BRANCH FROM BUS 270790 TO BUS 270770 CKT 1 / KATYD; B 345 GOODI;4B 345 TRIP BRANCH FROM BUS 918050 TO BUS 270769 CKT 1 / AA1-018 GOODINGS ;2R 345 END
COMED_P2-2_074_KE-138___1_NO_FSA	CONTINGENCY 'COMED_P2-2_074_KE-138___1_NO_FSA' DISCONNECT BUS 271836 / KEWAN; 1 138 DISCONNECT BUS 271837 / KEWAN; 5 138 DISCONNECT BUS 271838 / KEWAN; 4 138 DISCONNECT BUS 271018 / ANNAWAN; R 138 / ADDED TO TAKE OUT FULL FSA PATH END
COMED_P4_112-65-BT3-4__	CONTINGENCY 'COMED_P4_112-65-BT3-4__' TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 TRIP BRANCH FROM BUS 275232 TO BUS 270644 CKT 1 / WILTO;3M 345 WILTO; 765 TRIP BRANCH FROM BUS 275232 TO BUS 270926 CKT 1 / WILTO;3M 345 WILTO; B 345 TRIP BRANCH FROM BUS 275232 TO BUS 275332 CKT 1 / WILTO;3M 345 WILTO;3C 33 END
COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	CONTINGENCY 'COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A' TRIP BRANCH FROM BUS 271567 TO BUS 271337 CKT 1 / GOOSE LK ; R 138 DRESDEN ; R 138 TRIP BRANCH FROM BUS 271567 TO BUS 274190 CKT 7 / GOOSE LK ; R 138 GOOSE LK ; 34.5 TRIP BRANCH FROM BUS 271725 TO BUS 271723 CKT 1 / ESS J370 ;RT 138 ESS J370 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 271181 TO BUS 271180 / ESS J326 ; R 138 ESS J326 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 100 PERCENT LOAD FROM BUS 271783 TO BUS 271416 / JOLIET374; R 138 ESS J390 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272019 TO BUS 272018 / MINOOKA ; R 138 MINOOKA ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272318 TO BUS 272319 / ESS J375 ; B 138 ESS J375 ; R 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 271185 / ESS J326 ;RT 138 DISCONNECT BUS 271417 / ESS J390 ; R 138 DISCONNECT BUS 271473 / ESS J305 ;RT 138 TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 END

Contingency Name	Contingency Definition
COMED_P4_001-38-TR81___	CONTINGENCY 'COMED_P4_001-38-TR81___' TRIP BRANCH FROM BUS 270802 TO BUS 270803 CKT 1 / LASCO STA; B 345 LASCO STA; R 345 TRIP BRANCH FROM BUS 270802 TO BUS 271908 CKT 1 / LASCO STA; B 345 LASCO STA; B 138 DISCONNECT BUS 271908 / LASCO STA; B 138 TRIP BRANCH FROM BUS 270802 TO BUS 270803 CKT 1 / LASCO STA; B 345 LASCO STA; R 345 END
COMED_P2-1_074-L6101___	CONTINGENCY 'COMED_P2-1_074-L6101___' TRIP BRANCH FROM BUS 271835 TO BUS 271655 CKT 1 / KEWAN; 2 138 HENNE; T 138 END
COMED_P4_023-65-BT2-3__	CONTINGENCY 'COMED_P4_023-65-BT2-3__' TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 TRIP BRANCH FROM BUS 270607 TO BUS 270630 CKT 1 / COLLI; 765 PLANO; 765 END
COMED_P4_116-45-TR82___	CONTINGENCY 'COMED_P4_116-45-TR82___' TRIP BRANCH FROM BUS 270769 TO BUS 271565 TO BUS 275324 CKT 1 / GOODINGS ;2R 345 GOODINGS ; R 138 GOODINGS ;2C 34.5 DISCONNECT BUS 270769 / GOODINGS ;2R 345 END
COMED_P2-1_155-L15518__	CONTINGENCY 'COMED_P2-1_155-L15518__' TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 END
COMED_P4_112-45-BT4-5__	CONTINGENCY 'COMED_P4_112-45-BT4-5__' TRIP BRANCH FROM BUS 270666 TO BUS 270664 CKT 1 / B ISL;BT 345 B ISL; B 345 TRIP BRANCH FROM BUS 270666 TO BUS 270926 CKT 1 / B ISL;BT 345 WILTO; B 345 TRIP BRANCH FROM BUS 270770 TO BUS 270666 CKT 1 / GOODI;4B 345 B ISL;BT 345 TRIP BRANCH FROM BUS 270852 TO BUS 270704 CKT 1 / PONTI; B 345 LORET; B 345 END
COMED_P4_155-38-TR84___	CONTINGENCY 'COMED_P4_155-38-TR84___' TRIP BRANCH FROM BUS 275204 TO BUS 270828 CKT 1 / NELSO;4M 138 NELSO; B 345 TRIP BRANCH FROM BUS 275204 TO BUS 272094 CKT 1 / NELSO;4M 138 NELSO; B 138 TRIP BRANCH FROM BUS 275204 TO BUS 275304 CKT 1 / NELSO;4M 138 NELSO;4C 34.5 TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 END
COMED_P7_138-L6101___-S_+_138-L7713__R-S-B	CONTINGENCY 'COMED_P7_138-L6101___-S_+_138-L7713__R-S-B' TRIP BRANCH FROM BUS 271655 TO BUS 271835 CKT 1 / HENNEEPIN; T 138 KEWANEE ;23 138 TRIP BRANCH FROM BUS 271655 TO BUS 348918 CKT 1 / HENNEEPIN; T 138 4HENNEPIN S 138 TRIP BRANCH FROM BUS 926820 TO BUS 271655 CKT 1 / AD2-066 TAP ; 138 HENNEEPIN; T 138 TRIP BRANCH FROM BUS 271241 TO BUS 272189 CKT 1 / CRESCENT ; R 138 OGLESBY ; T 138 TRIP BRANCH FROM BUS 272189 TO BUS 936510 CKT 1 / OGLESBY ; T 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272189 TO BUS 348935 CKT 1 / OGLESBY ; T 138 4OGLESBY MN 138 END

Contingency Name	Contingency Definition
COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	CONTINGENCY 'COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA' TRIP BRANCH FROM BUS 348962 TO BUS 271835 CKT 1 / NORMA; R 138 KEWAN; 2 138 TRIP BRANCH FROM BUS 271018 TO BUS 271836 CKT 1 / U4-027 KEWAN; 1 138 TRIP BRANCH FROM BUS 271018 TO BUS 272110 CKT 1 / U4-027 NORMANDY END
AEP_P4_#3128_05EUGENE 345_A2	CONTINGENCY 'AEP_P4_#3128_05EUGENE 345_A2' OPEN BRANCH FROM BUS 243221 TO BUS 249504 CKT 1 / 243221 05EUGENE 345 249504 08CAYSUB 345 1 OPEN BRANCH FROM BUS 243221 TO BUS 348885 CKT 1 / 243221 05EUGENE 345 348885 7BUNSONVILLE 345 1 END
COMED_P2-2_116_GG-345R__2_NO_FSA	CONTINGENCY 'COMED_P2-2_116_GG-345R__2_NO_FSA' DISCONNECT BUS 270769 / GOODI;2R 345 END
COMED_P1-2_138-L15508_R-R	CONTINGENCY 'COMED_P1-2_138-L15508_R-R' TRIP BRANCH FROM BUS 271331 TO BUS 271333 CKT 1 / DIXON;8R 138 DIXON; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 271331 CKT 1 / NELSO;RT 138 DIXON;8R 138 TRIP BRANCH FROM BUS 272097 TO BUS 272095 CKT 1 / NELSO;RT 138 NELSO; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 293710 CKT 1 / NELSO;RT 138 O29 138 MOVE 100 PERCENT LOAD FROM BUS 271331 TO BUS 271330 / DIXON;8R 138 DIXON;7B 138 END
COMED_P1-2_138-L15518GB-R-A	CONTINGENCY 'COMED_P1-2_138-L15518GB-R-A' TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272366 TO BUS 272512 CKT 1 / R FAL; B 138 H71 ;BT 138 TRIP BRANCH FROM BUS 272512 TO BUS 937530 CKT 1 / H71 ;BT 138 AD2-214 TAP 138 TRIP BRANCH FROM BUS 272512 TO BUS 272514 CKT 1 / H71 ;BT 138 H71 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272514 TO BUS 272515 / H71 ; B 138 H71 ; R 138 CLOSE LINE FROM BUS 272366 TO BUS 272367 CKT 1 / R FAL; B 138 R FAL; R 138 END
COMED_P2-2_074_KE-138___1_FSA	CONTINGENCY 'COMED_P2-2_074_KE-138___1_FSA' DISCONNECT BUS 271836 / KEWAN; 1 138 DISCONNECT BUS 271837 / KEWAN; 5 138 DISCONNECT BUS 271838 / KEWAN; 4 138 END
COMED_P4_023-65-BT4-5__	CONTINGENCY 'COMED_P4_023-65-BT4-5__' TRIP BRANCH FROM BUS 275168 TO BUS 270607 CKT 1 / COLLI;2M 345 COLLI; 765 TRIP BRANCH FROM BUS 275168 TO BUS 270697 CKT 1 / COLLI;2M 345 COLLI; R 345 TRIP BRANCH FROM BUS 275168 TO BUS 275268 CKT 1 / COLLI;2M 345 COLLI;2C 33 TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 END
COMED_P4_001-38-L0108__	CONTINGENCY 'COMED_P4_001-38-L0108__' TRIP BRANCH FROM BUS 271908 TO BUS 271986 CKT 1 / LASCO; B 138 MAZON; B 138 DISCONNECT BUS 271908 / LASCO; B 138 END

Contingency Name	Contingency Definition
COMED_P1-2_138-L1206__R-S-A	CONTINGENCY 'COMED_P1-2_138-L1206__R-S-A' TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 END
COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	CONTINGENCY 'COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A' TRIP BRANCH FROM BUS 272095 TO BUS 272367 CKT 1 / NELSON ; R 138 ROCK FALL; R 138 TRIP BRANCH FROM BUS 272367 TO BUS 274244 CKT 7 / ROCK FALL; R 138 ROCK FALL; 34.5 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSON ; B 138 ROCK FALL; B 138 TRIP BRANCH FROM BUS 272366 TO BUS 272512 CKT 1 / ROCK FALL; B 138 ESS H71 ;BT 138 TRIP BRANCH FROM BUS 272512 TO BUS 937530 CKT 1 / ESS H71 ;BT 138 AD2-214 TAP; 138 TRIP BRANCH FROM BUS 272512 TO BUS 272514 CKT 1 / ESS H71 ;BT 138 ESS H71 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272514 TO BUS 272515 / ESS H71 ; B 138 ESS H71 ; R 138 CLOSE LINE FROM BUS 272366 TO BUS 272367 CKT 1 / ROCK FALL; B 138 ROCK FALL; R 138 END
271837	CONTINGENCY '271837' OPEN BRANCH FROM BUS 271837 TO BUS 271838 CKT 1 END
AEP_P1-2_#286	CONTINGENCY 'AEP_P1-2_#286' OPEN BRANCH FROM BUS 243221 TO BUS 348885 CKT 1 / 243221 05EUGENE 345 348885 7BUNSONVILLE 345 1 END
COMED_P4_112-65-BT4-5__	CONTINGENCY 'COMED_P4_112-65-BT4-5__' TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 TRIP BRANCH FROM BUS 275233 TO BUS 270644 CKT 1 / WILTO;4M 345 WILTO; 765 TRIP BRANCH FROM BUS 275233 TO BUS 270927 CKT 1 / WILTO;4M 345 WILTO; R 345 TRIP BRANCH FROM BUS 275233 TO BUS 275333 CKT 1 / WILTO;4M 345 WILTO;4C 33 END
271838	CONTINGENCY '271838' OPEN BRANCH FROM BUS 271838 TO BUS 271845 CKT 1 END
COMED_P7_345-L0301__B-S_+_345-L9801__R-S_FSA	CONTINGENCY 'COMED_P7_345-L0301__B-S_+_345-L9801__R-S_FSA' TRIP BRANCH FROM BUS 270854 TO BUS 270790 CKT 1 / POWER; B 345 KATYDID TRIP BRANCH FROM BUS 918050 TO BUS 270769 CKT 1 / AA1-018 GOODINGS ;2R 345 END

Contingency Name	Contingency Definition
COMED_P4_155-45-BT6-7__	CONTINGENCY 'COMED_P4_155-45-BT6-7__' TRIP BRANCH FROM BUS 275204 TO BUS 270828 CKT 1 / NELSO;4M 138 NELSO; B 345 TRIP BRANCH FROM BUS 275204 TO BUS 272094 CKT 1 / NELSO;4M 138 NELSO; B 138 TRIP BRANCH FROM BUS 275204 TO BUS 275304 CKT 1 / NELSO;4M 138 NELSO;4C 34.5 TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 END
COMED_P7_345-L6607__B-S_+_345-L97008_R-S	CONTINGENCY 'COMED_P7_345-L6607__B-S_+_345-L97008_R-S' TRIP BRANCH FROM BUS 270728 TO BUS 274750 CKT 1 / E FRANKFO; B 345 CRETE EC ;BP 345 TRIP BRANCH FROM BUS 274804 TO BUS 243229 CKT 1 / UNIV PK N;RP 345 05OLIVE 345 END
COMED_P1-2_138-L13304_R-R	CONTINGENCY 'COMED_P1-2_138-L13304_R-R' TRIP BRANCH FROM BUS 272367 TO BUS 293510 CKT 1 / R FAL; R 138 O9 138 END
COMED_P7_138-L7411__R-R_+_138-L7408__R-R	CONTINGENCY 'COMED_P7_138-L7411__R-R_+_138-L7408__R-R' TRIP BRANCH FROM BUS 348962 TO BUS 271835 CKT 1 / NORMA; R 138 KEWAN; 2 138 TRIP BRANCH FROM BUS 271018 TO BUS 271836 CKT 1 / U4-027 KEWAN; 1 138 END
COMED_P4_074-38-L7413__	CONTINGENCY 'COMED_P4_074-38-L7413__' TRIP BRANCH FROM BUS 271836 TO BUS 271241 CKT 1 / KEWAN; 1 138 CRESC; R 138 DISCONNECT BUS 271836 / KEWAN; 1 138 DISCONNECT BUS 271837 / KEWAN; 5 138 DISCONNECT BUS 271838 / KEWAN; 4 138 END
COMED_P1-2_138-L0112__B-S	CONTINGENCY 'COMED_P1-2_138-L0112__B-S' TRIP BRANCH FROM BUS 271844 TO BUS 271908 CKT 1 / KICKA; B 138 LASCO; B 138 END
COMED_P4_116-45-L9801_FSA	CONTINGENCY 'COMED_P4_116-45-L9801_FSA' TRIP BRANCH FROM BUS 918050 TO BUS 270769 CKT 1 / AA1-018 GOODINGS ;2R 345 DISCONNECT BUS 270769 / GOODI;2R 345 END
COMED_P7_138-L1206__R-S_+_345-L2311__R-S	CONTINGENCY 'COMED_P7_138-L1206__R-S_+_345-L2311__R-S' TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 TRIP BRANCH FROM BUS 270697 TO BUS 270717 CKT 1 / COLLINS ; R 345 DRESDEN ; R 345 END

Contingency Name	Contingency Definition
COMED_P4_937-45-BT1-2__	CONTINGENCY 'COMED_P4_937-45-BT1-2__' TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 TRIP BRANCH FROM BUS 274768 TO BUS 270678 CKT 1 / LEECO;BP 345 BYRON; B 345 END
COMED_P4_116-45-L11614_	CONTINGENCY 'COMED_P4_116-45-L11614_' TRIP BRANCH FROM BUS 270667 TO BUS 270665 CKT 1 / B ISL;RT 345 B ISL; R 345 TRIP BRANCH FROM BUS 270667 TO BUS 270927 CKT 1 / B ISL;RT 345 WILTO; R 345 TRIP BRANCH FROM BUS 270769 TO BUS 270667 CKT 1 / GOODI;2R 345 B ISL;RT 345 DISCONNECT BUS 270769 / GOODI;2R 345 END
COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A	CONTINGENCY 'COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A' TRIP BRANCH FROM BUS 271336 TO BUS 272124 CKT 1 / DRESDEN ; B 138 ESS J339 ; B 138 TRIP BRANCH FROM BUS 271986 TO BUS 271908 CKT 1 / MAZON ; B 138 LASCO STA; B 138 TRIP BRANCH FROM BUS 272318 TO BUS 271986 CKT 1 / ESS J375 ; B 138 MAZON ; B 138 TRIP BRANCH FROM BUS 272318 TO BUS 272124 CKT 1 / ESS J375 ; B 138 ESS J339 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272124 TO BUS 272125 / ESS J339 ; B 138 ESS J339 ; R 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274837 / EQUISTAR ; B 13.8 TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 END
Base Case	
COMED_P4_012-38-L1206__	CONTINGENCY 'COMED_P4_012-38-L1206__' TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 TRIP BRANCH FROM BUS 271337 TO BUS 271336 CKT 1 / DRESDEN ; R 138 DRESDEN ; B 138 TRIP BRANCH FROM BUS 271337 TO BUS 271567 CKT 1 / DRESDEN ; R 138 GOOSE LK ; R 138 END

Contingency Name	Contingency Definition
COMED_P7_345-L94507_B-S_+_345-L97008_R-S	CONTINGENCY 'COMED_P7_345-L94507_B-S_+_345-L97008_R-S' TRIP BRANCH FROM BUS 274750 TO BUS 255112 CKT 1 / CRETE;BP 345 17STJOHN 345 TRIP BRANCH FROM BUS 274804 TO BUS 243229 CKT 1 / UPNOR;RP 345 05OLIVE 345 END
COMED_P4_155-38-L15518_	CONTINGENCY 'COMED_P4_155-38-L15518_' TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272366 TO BUS 272512 CKT 1 / R FAL; B 138 H71 ;BT 138 TRIP BRANCH FROM BUS 272512 TO BUS 937530 CKT 1 / H71 ;BT 138 AD2-214 TAP 138 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 272512 TO BUS 272514 CKT 1 / H71 ;BT 138 H71 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272514 TO BUS 272515 / H71 ; B 138 H71 ; R 138 CLOSE LINE FROM BUS 272366 TO BUS 272367 CKT 1 / R FAL; B 138 R FAL; R 138 TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 275204 CKT 1 / NELSO; B 138 NELSO;4M 138 END
AEP_P1-2_#8907	CONTINGENCY 'AEP_P1-2_#8907' OPEN BRANCH FROM BUS 247712 TO BUS 346809 CKT 1 / 247712 05SULLIVAN 345 346809 7CASEY 345 1 END
COMED_P1-2_345-L11622_R-S	CONTINGENCY 'COMED_P1-2_345-L11622_R-S' TRIP BRANCH FROM BUS 270737 TO BUS 270769 CKT 1 / ELWOO; R 345 GOODI;1R 345 END
AEP_P1-2_#695A	CONTINGENCY 'AEP_P1-2_#695A' OPEN BRANCH FROM BUS 243206 TO BUS 270644 CKT 1 / 243206 05DUMONT 765 270644 WILTON ; 765 1 END
COMED_P1-2_345-L15501_B-R	CONTINGENCY 'COMED_P1-2_345-L15501_B-R' TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 END
COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	CONTINGENCY 'COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A' TRIP BRANCH FROM BUS 270716 TO BUS 930750 CKT 1 / DRESDEN ; B 345 AB1-122 TAP 345 TRIP BRANCH FROM BUS 930740 TO BUS 270717 CKT 1 / AB1-122 TAP 345 DRESDEN ; R 345 END
COMED_P7_138-L93008_R-R_+_138-L18706_R-R	CONTINGENCY 'COMED_P7_138-L93008_R-R_+_138-L18706_R-R' TRIP BRANCH FROM BUS 271018 TO BUS 272110 CKT 1 / U4-027 NORMANDY TRIP BRANCH FROM BUS 293710 TO BUS 272110 CKT 1 / O29 138 NORMA; B 138 TRIP BRANCH FROM BUS 293510 TO BUS 272111 CKT 1 / O09 OP1 138 NORMA; R 138 TRIP BRANCH FROM BUS 348962 TO BUS 272111 CKT 1 / 4KEEMIN 138 NORMANDY ; R 138 END
COMED_P1-3_TR81_LASCO_B-S	CONTINGENCY 'COMED_P1-3_TR81_LASCO_B-S' TRIP BRANCH FROM BUS 270802 TO BUS 270803 CKT 1 / LASCO STA; B 345 LASCO STA; R 345 TRIP BRANCH FROM BUS 270802 TO BUS 271908 CKT 1 / LASCO STA; B 345 LASCO STA; B 138 END

Contingency Name	Contingency Definition
COMED_P2-2_155_NE-138B__4	CONTINGENCY 'COMED_P2-2_155_NE-138B__4' TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272094 TO BUS 275204 CKT 1 / NELSO; B 138 NELSO;4M 138 END
COMED_P2-2_116_GG-345R__2_FSA	CONTINGENCY 'COMED_P2-2_116_GG-345R__2_FSA' DISCONNECT BUS 270769 / GOODI;2R 345 DISCONNECT BUS 918050 / AA1-018 TAP /ADDED FOR NO FSA CASE END
COMED_P4_937-45-BT1-4__	CONTINGENCY 'COMED_P4_937-45-BT1-4__' TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 TRIP BRANCH FROM BUS 271421 TO BUS 274450 CKT 1 / EASYR; B 138 EASYR;1 34.5 TRIP BRANCH FROM BUS 271421 TO BUS 274451 CKT 1 / EASYR; B 138 EASYR;2 34.5 TRIP BRANCH FROM BUS 272528 TO BUS 271421 CKT 1 / S DIX; B 138 EASYR; B 138 TRIP BRANCH FROM BUS 274420 TO BUS 274857 CKT 1 / EASYR;1H 34.5 EASYR;U1 0.69 TRIP BRANCH FROM BUS 274421 TO BUS 274858 CKT 1 / EASYR;2H 34.5 EASYR;U2 0.69 TRIP BRANCH FROM BUS 274450 TO BUS 274420 CKT 1 / EASYR;1 34.5 EASYR;1H 34.5 TRIP BRANCH FROM BUS 274451 TO BUS 274421 CKT 1 / EASYR;2 34.5 EASYR;2H 34.5 TRIP BRANCH FROM BUS 274768 TO BUS 272528 CKT 1 / LEECO;BP 345 S DIX; B 138 REMOVE UNIT W1 FROM BUS 274857 / EASYR;U1 0.69 REMOVE UNIT W2 FROM BUS 274858 / EASYR;U2 0.69 END
COMED_P4_133-38-BT1-2__	CONTINGENCY 'COMED_P4_133-38-BT1-2__' TRIP BRANCH FROM BUS 272367 TO BUS 272515 CKT 1 / R FAL; R 138 H71 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272515 TO BUS 272514 / H71 ; R 138 H71 ; B 138 TRIP BRANCH FROM BUS 272095 TO BUS 272367 CKT 1 / NELSO; R 138 R FAL; R 138 TRIP BRANCH FROM BUS 272367 TO BUS 274244 CKT 7 / R FAL; R 138 R FAL; 34.5 END
COMED_P4_155-38-L15508_	CONTINGENCY 'COMED_P4_155-38-L15508_' TRIP BRANCH FROM BUS 271331 TO BUS 271333 CKT 1 / DIXON;8R 138 DIXON; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 271331 CKT 1 / NELSO;RT 138 DIXON;8R 138 TRIP BRANCH FROM BUS 272097 TO BUS 272095 CKT 1 / NELSO;RT 138 NELSO; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 293710 CKT 1 / NELSO;RT 138 O29 138 MOVE 100 PERCENT LOAD FROM BUS 271331 TO BUS 271330 / DIXON;8R 138 DIXON;7B 138 DISCONNECT BUS 272095 / NELSO; R 138 END
COMED_P4_155-38-TR81___	CONTINGENCY 'COMED_P4_155-38-TR81___' TRIP BRANCH FROM BUS 270828 TO BUS 272094 TO BUS 275341 CKT 1 / NELSO; B 345 NELSO; B 138 NELSO;1C 34.5 TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272094 TO BUS 275204 CKT 1 / NELSO; B 138 NELSO;4M 138 END
COMED_P1-2_138-L1352___-S	CONTINGENCY 'COMED_P1-2_138-L1352___-S' TRIP BRANCH FROM BUS 272269 TO BUS 272285 CKT 1 / POWERTON ; 138 POWERTON ;RT 138 TRIP BRANCH FROM BUS 272285 TO BUS 348908 CKT 1 / POWERTON ;RT 138 4HAVANA E 138 TRIP BRANCH FROM BUS 272285 TO BUS 349505 CKT 1 / POWERTON ;RT 138 4HUFF 138 END

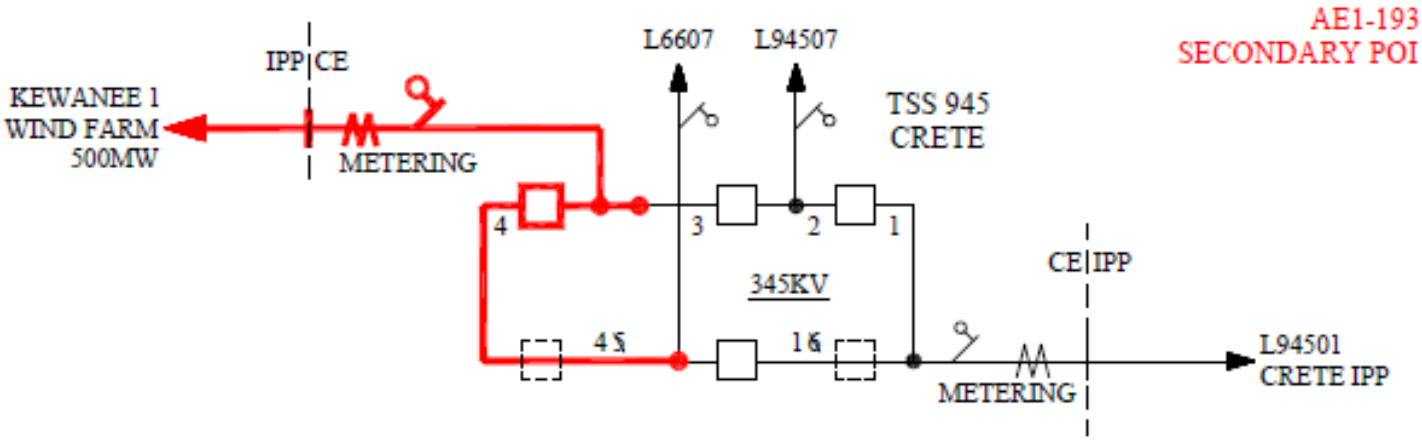
Contingency Name	Contingency Definition
AEP_P4_#2978_05DUMONT 765_B	CONTINGENCY 'AEP_P4_#2978_05DUMONT 765_B' OPEN BRANCH FROM BUS 243206 TO BUS 243207 CKT 1 / 243206 05DUMONT 765 243207 05GRNTWN 765 1 OPEN BRANCH FROM BUS 243206 TO BUS 270644 CKT 1 / 243206 05DUMONT 765 270644 WILTON ; 765 1 END

Short Circuit

This queue position has a greater than 3% contribution to a previously identified overdutied breaker at Kewanee (7411). Estimated cost to replace is $2,000,000, 24-30 months to replace.

Secondary Point of Interconnection

AE1-193 proposed as a secondary point of interconnection to interconnect with the ComEd transmission system at the Crete EC; BP 345 kV substation.



Network Impacts

The Queue Project AE1-193 was evaluated as a 500 MW (Capacity 65 MW) injection at the Crete EC; BP 345 kV substation in the ComEd area. Project AE1-193 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-193 was studied with a commercial probability of 53%. Potential network impacts were as follows:

Summer Peak Load Flow

Generation Deliverability

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

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822744	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	Base Case	single	173.0	91.94	94.65	DC	4.69

Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822428	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P4_012-38-L1206__	breaker	192.0	88.26	97.14	DC	37.85
823591	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	192.0	88.28	97.17	DC	37.88
823592	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	88.2	97.08	DC	37.85
821931	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	49.66	138.12	DC	440.53
823311	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	189.0	94.91	136.43	DC	78.47
823312	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	189.0	89.11	130.63	DC	78.47
823313	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	189.0	89.11	130.63	DC	78.47
822080	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	80.81	121.95	DC	204.89

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
823331	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	COMED_P7_138-L6101___-S_+_138-L7713__R-S-B	tower	449.0	95.27	134.53	DC	176.29
823332	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	449.0	85.41	128.4	DC	193.02
821728	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	336.0	40.26	88.28	DC	161.36
821729	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	336.0	40.26	88.28	DC	161.36
821937	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	71.25	143.6	DC	360.29
822292	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	336.0	40.26	88.28	DC	161.36
823469	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	498.0	97.51	109.81	DC	61.29
823509	271908	LASCO STA; B	CE	270802	LASCO STA; B	CE	1	COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A	tower	498.0	96.01	106.28	DC	51.13
822423	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	71.44	89.31	DC	92.92
821513	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	230.0	95.71	162.65	DC	153.96
821514	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	230.0	95.71	162.65	DC	153.96
821921	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	95.71	162.65	DC	153.96
823374	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	230.0	99.59	121.44	DC	50.25
823375	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	230.0	99.59	121.44	DC	50.25
821706	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	268.0	75.54	104.63	DC	77.96
821707	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P2-2_074_KE-138___1_FSA	bus	268.0	75.54	104.63	DC	77.96
822248	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P4_074-38-L7413__	breaker	268.0	75.54	104.63	DC	77.96
823579	272367	ROCK FALL; R	CE	272366	ROCK FALL; B	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	230.0	88.49	98.07	DC	48.83
821553	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	274.0	76.59	135.45	DC	161.28
821554	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	274.0	76.59	135.45	DC	161.28
821991	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P4_074-38-L7413__	breaker	274.0	76.59	135.45	DC	161.28
822425	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	71.44	89.31	DC	92.92

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
822306	293710	O29	CE	272366	ROCK FALL; B	CE	1	COMED_P4_155-38-L15508_	breaker	498.0	90.34	107.7	DC	86.47
823539	918050	AA1-018 TAP	CE	270769	GOODINGS ;2R	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	91.55	92.42	DC	28.67
822378	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P4_012-38-L1206__	breaker	192.0	99.01	107.89	DC	37.85
823498	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	192.0	98.98	107.87	DC	37.88
823499	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	98.95	107.83	DC	37.85
823598	936290	AD2-038 TAP	CE	918050	AA1-018 TAP	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	85.2	86.07	DC	28.73

Contribution to Previously Identified Overloads

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

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
508190	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	174.48	175.13	DC	61.6
510043	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	104.34	105.13	DC	138.1
510044	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	103.64	104.51	DC	138.3
823528	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	104.34	105.13	DC	138.1
823529	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	103.64	104.51	DC	138.3
822311	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	112.16	112.37	DC	55.34
822312	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	111.8	112.0	DC	55.62
822313	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	111.71	111.92	DC	55.53
822314	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	111.71	111.92	DC	55.52
821701	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P2-2_116_GG-345R__2_NO_FSA	bus	1802.0	119.36	120.39	DC	41.12
821702	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P2-2_116_GG-345R__2_FSA	bus	1802.0	118.86	119.89	DC	41.13
822213	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-L11614_	breaker	1802.0	123.81	124.85	DC	41.26
822214	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-L9801_FSA	breaker	1802.0	119.36	120.39	DC	41.12

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
822215	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-TR82___	breaker	1802.0	119.32	120.36	DC	41.12
822216	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_112-45-BT4-5__	breaker	1802.0	112.44	113.67	DC	48.75
822156	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	134.48	136.16	DC	60.57
822157	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-2__	breaker	1656.0	130.05	131.77	DC	62.13
822158	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-4__	breaker	1656.0	129.69	131.42	DC	62.16
822032	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	109.97	144.26	DC	94.3
823306	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	185.0	114.32	145.46	DC	57.6
823307	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	185.0	109.86	141.0	DC	57.6
823308	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	185.0	109.86	141.0	DC	57.6
821493	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P2-2_074_KE-138___1_FSA	bus	214.0	124.31	196.26	DC	153.96
821494	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	214.0	124.31	196.26	DC	153.96
821891	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P4_074-38-L7413__	breaker	214.0	124.31	196.26	DC	153.96
821961	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	COMED_P4_133-38-BT1-2__	breaker	229.0	116.35	157.53	DC	94.3
821906	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	COMED_P4_133-38-BT1-2__	breaker	256.0	125.08	180.26	DC	141.27
822317	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P4_012-38-L1206__	breaker	498.0	100.56	110.99	DC	51.92
823470	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	498.0	100.57	111.01	DC	51.98
821887	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	123.77	196.09	DC	360.18
822039	272110	NORMANDY ; B	CE	293710	O29	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	107.68	141.97	DC	94.3
821638	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P2-2_001_LA-138B__1	bus	223.0	124.86	133.82	DC	44.32
822148	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P4_001-38-L0108__	breaker	223.0	124.86	133.82	DC	44.32
822149	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P4_001-38-TR81___	breaker	223.0	124.86	133.82	DC	44.32
822195	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P4_012-38-L1206__	breaker	202.0	120.29	128.1	DC	34.99
823373	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	230.0	102.66	124.51	DC	50.25
823399	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	202.0	120.29	128.1	DC	34.99
821498	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	230.0	115.76	185.89	DC	161.28
821499	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	230.0	115.76	185.89	DC	161.28
821896	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	115.76	185.89	DC	161.28
822101	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	COMED_P4_155-38-L15508_	breaker	426.0	114.52	136.64	DC	94.2
821488	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	230.0	143.45	207.79	DC	147.99
821489	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	230.0	143.45	207.79	DC	147.99

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
821881	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	143.45	207.79	DC	147.99
508323	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	135.87	137.32	DC	42.53
508324	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	133.93	135.51	DC	42.74
508325	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	134.65	136.11	DC	42.73
508326	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	134.65	136.11	DC	42.73
508327	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	134.65	136.11	DC	42.72
822121	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	135.87	137.32	DC	42.53
822122	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	133.93	135.51	DC	42.74
822123	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	134.65	136.11	DC	42.73
822124	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	134.65	136.11	DC	42.73
822125	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	134.65	136.11	DC	42.72
821523	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	331.0	115.55	162.03	DC	153.84
821524	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	331.0	115.55	162.03	DC	153.84
821941	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P4_074-38-L7413__	breaker	331.0	115.55	162.03	DC	153.84
821756	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P2-2_155_NE-138B__4	bus	275.0	101.83	109.38	DC	45.98
822264	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P4_155-38-TR81___	breaker	264.0	111.11	118.84	DC	45.22
822265	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P4_155-38-TR84___	breaker	264.0	106.08	113.93	DC	45.98
823224	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	275.0	184.18	223.1	DC	107.01
508290	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	AEP_P4_#3128_05EUGENE 345_A2	breaker	1466.0	144.34	145.72	DC	44.24
821503	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P2-2_074_KE-138___1_FSA	bus	214.0	109.97	181.91	DC	153.96
821504	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P2-2_074_KE-138___1_NO_FSA	bus	214.0	109.97	181.91	DC	153.96
821901	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P4_074-38-L7413__	breaker	214.0	109.97	181.91	DC	153.96
823235	930740	AB1-122 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA	tower	1195.0	134.68	136.15	DC	38.78
823236	930740	AB1-122 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P7_345-L0301__B-S_+_345-L9801__R-S_FSA-B	tower	1195.0	130.03	131.49	DC	38.83
821568	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P2-2_001_LA-138B__1	bus	223.0	158.19	167.15	DC	44.32
822006	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P4_001-38-TR81___	breaker	223.0	158.19	167.15	DC	44.32
822007	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P4_001-38-L0108__	breaker	223.0	158.19	167.15	DC	44.32
823296	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R	tower	230.0	131.68	153.53	DC	50.25
823297	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	tower	230.0	131.68	153.53	DC	50.25

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	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
509014	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P1-2_#695A	operation	1409.0	171.0	171.67	DC	62.52
509020	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	Base Case	operation	1409.0	111.62	112.25	DC	34.83
823019	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P1-2_#695A	operation	1399.0	111.67	111.87	DC	55.48
823091	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P1-2_345-L11613AB-S	operation	1802.0	106.15	107.33	DC	46.87
823095	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	Base Case	operation	1560.0	99.9	100.9	DC	34.27
822913	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P1-2_345-L15501_B-R	operation	1656.0	129.67	131.39	DC	62.16
822914	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	Base Case	operation	1334.0	107.09	108.59	DC	44.01
822708	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	COMED_P1-2_138-L13304_R-R	operation	264.0	114.04	149.79	DC	94.37
822710	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	Base Case	operation	208.0	105.72	143.35	DC	78.27
822768	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P2-1_074-L6101___	operation	174.0	114.9	144.72	DC	51.88
822772	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	Base Case	operation	174.0	98.38	109.13	DC	41.48
822517	271655	HENNEEPIN; T	CE	348918	4HENNEPIN S	AMIL	1	271838	operation	160.0	178.73	273.43	DC	151.53
823120	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	Base Case	operation	142.0	91.5	102.01	DC	33.11
823121	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P1-2_138-L1206__R-S-A	operation	184.0	91.6	100.87	DC	37.85
822527	271835	KEWANEE ;23	CE	271655	HENNEEPIN; T	CE	1	271838	operation	195.0	144.62	240.86	DC	187.67
822532	271835	KEWANEE ;23	CE	271655	HENNEEPIN; T	CE	1	Base Case	operation	190.0	55.49	83.09	DC	52.43
822606	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	271838	operation	214.0	114.61	185.63	DC	151.99
822611	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	Base Case	operation	173.0	105.12	142.49	DC	64.65
822624	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	55.04	153.16	DC	440.54
822626	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	Base Case	operation	351.0	25.43	134.52	DC	382.92

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
822674	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	COMED_P1-2_138-L13304_R-R	operation	214.0	123.86	167.96	DC	94.37
822676	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	Base Case	operation	173.0	107.59	152.83	DC	78.27
822612	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	COMED_P1-2_138-L13304_R-R	operation	246.0	129.65	187.1	DC	141.33
822614	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	Base Case	operation	190.0	117.76	180.82	DC	119.81
822831	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P1-2_138-L1352___-S	operation	189.0	84.41	119.39	DC	66.11
822836	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	Base Case	operation	159.0	68.04	103.28	DC	56.03
822760	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	Base Case	operation	351.0	81.83	131.93	DC	175.84
822761	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	89.42	135.06	DC	204.94
822809	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	Base Case	operation	351.0	83.94	122.68	DC	135.99
822810	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	271837	operation	449.0	68.97	116.15	DC	211.86
822648	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	78.93	159.18	DC	360.31
822650	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	Base Case	operation	351.0	59.85	148.72	DC	311.94
822962	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	271838	operation	317.0	38.78	89.33	DC	160.24
822908	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P1-2_138-L1206__R-S-A	operation	442.0	113.03	124.77	DC	51.92
822910	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	Base Case	operation	351.0	123.11	128.82	DC	44.3
822580	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	Base Case	operation	351.0	125.66	214.5	DC	311.83
822581	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	COMED_P1-2_138-L13304_R-R	operation	449.0	137.17	217.39	DC	360.21
822824	271908	LASCO STA; B	CE	271986	MAZON ; B	CE	1	COMED_P1-3_TR81_LASCO_B-S	operation	223.0	139.12	144.85	DC	28.23
822826	271987	MAZON ; R	CE	271187	CHANNAHON ; R	CE	1	COMED_P1-2_138-L0112__B-S	operation	223.0	133.12	141.01	DC	39.01
822827	271987	MAZON ; R	CE	271187	CHANNAHON ; R	CE	1	Base Case	operation	173.0	130.18	138.62	DC	32.4
823147	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	70.71	88.89	DC	87.31
822734	272110	NORMANDY ; B	CE	293710	O29	CE	1	COMED_P1-2_138-L13304_R-R	operation	264.0	111.69	147.44	DC	94.37
822736	272110	NORMANDY ; B	CE	293710	O29	CE	1	Base Case	operation	208.0	102.74	140.37	DC	78.27
822668	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	271838	operation	223.0	89.44	157.6	DC	151.99
822673	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	Base Case	operation	173.0	78.65	116.02	DC	64.65
823064	272124	ESS J339 ; B	CE	271336	DRESDEN ; B	CE	1	COMED_P1-3_TR81_LASCO_B-S	operation	268.0	107.16	112.11	DC	29.26
822957	272125	ESS J339 ; R	CE	271337	DRESDEN ; R	CE	1	COMED_P1-2_138-L0112__B-S	operation	268.0	114.87	121.43	DC	38.78

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
822958	272125	ESS J339 ; R	CE	271337	DRESDEN ; R	CE	1	Base Case	operation	210.0	112.53	119.47	DC	32.16
822860	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P1-2_138-L0112__B-S	operation	223.0	123.5	132.49	DC	44.49
822861	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	Base Case	operation	173.0	110.85	120.24	DC	36.05
822890	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P1-2_138-L1206__R-S-A	operation	202.0	120.19	128.0	DC	34.99
822590	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	271838	operation	214.0	118.51	193.35	DC	160.15
822594	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	Base Case	operation	184.0	100.97	139.51	DC	70.91
822965	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	271838	operation	268.0	75.25	104.12	DC	77.38
822946	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	COMED_P1-2_138-L15508_R-R	operation	401.0	96.67	114.17	DC	70.17
822950	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	Base Case	operation	351.0	76.94	93.71	DC	58.86
822585	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	223.0	178.9	221.99	DC	96.1
822589	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	Base Case	operation	173.0	142.59	179.22	DC	63.37
822595	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	271838	operation	194.0	101.69	184.24	DC	160.15
822597	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	Base Case	operation	155.0	87.27	133.02	DC	70.91
509184	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	134.64	136.09	DC	42.72
822847	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	134.64	136.09	DC	42.72
823148	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	70.68	88.87	DC	87.31
822642	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	271838	operation	283.0	127.16	180.82	DC	151.87
822647	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	Base Case	operation	238.0	122.69	149.8	DC	64.53
823005	293710	O29	CE	272366	ROCK FALL; B	CE	1	COMED_P1-2_138-L15508_R-R	operation	449.0	91.76	109.03	DC	77.53
823008	293710	O29	CE	272366	ROCK FALL; B	CE	1	Base Case	operation	351.0	86.96	105.73	DC	65.89
823065	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P2-1_155-L15518__	operation	264.0	101.68	109.75	DC	47.21
509178	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	AEP_P1-2_#286	operation	1466.0	138.68	140.07	DC	44.62
509179	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	Base Case	operation	1334.0	122.76	123.99	DC	36.05
509653	348885	7BUNSONVILLE	AMIL	243221	05EUGENE	AEP	1	AEP_P1-2_#8907	operation	1793.0	101.71	102.51	DC	42.05
822853	348935	4OGLESBY MN	AMIL	272189	OGLESBY ; T	CE	1	271837	operation	202.0	95.57	122.76	DC	54.92
822636	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	271838	operation	214.0	100.31	171.33	DC	151.99
822641	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	Base Case	operation	173.0	87.38	124.75	DC	64.65
822977	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	Base Case	operation	142.0	105.21	115.72	DC	33.11
822978	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P1-2_138-L1206__R-S-A	operation	184.0	102.82	112.09	DC	37.85

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
822739	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P1-2_138-L0112__B-S	operation	223.0	156.91	165.91	DC	44.49
822740	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	Base Case	operation	173.0	153.01	162.4	DC	36.05

Flow Gate Details

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822007	936510	AD2-066 TAP	CE	271987	MAZON ; R	CE	1	COMED_P4_001-38-L0108__	breaker	223.0	158.19	167.15	DC	44.32

Bus #	Bus	MW Impact
274832	U4-027	7.15
274847	GR RIDGE ;BU	0.82
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.3
274871	GR RIDGE ;2U	1.04
293061	N-015 E	21.37
293771	O-035 E	7.88
294392	P-010 E	27.14
294401	BSHIL;1U E	7.09
294410	BSHIL;2U E	7.09
916211	Z1-072 E	5.96
917451	Z2-081	0.35
919621	AA2-039 C	1.73
919622	AA2-039 E	11.57
925581	AC1-033 C	1.16
925582	AC1-033 E	7.77
926821	AC1-168 C O1	1.69
926822	AC1-168 E O1	11.35
927201	AC1-214 C O1	2.53
927202	AC1-214 E O1	8.04
934051	AD1-031 C O1	2.36
934052	AD1-031 E O1	3.85
936511	AD2-066 C O1	44.66
936512	AD2-066 E O1	29.77
939631	AE1-193 C O1	5.76
939632	AE1-193 E O1	38.56
939681	AE1-198 C O1	17.11
939682	AE1-198 E O1	14.54
953201	J715 C	3.38
953202	J715 E	18.26
954201	J887 C	0.99
954202	J887 E	5.37
990901	L-005 E	9.6
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.8
CBM-S2	CBM-S2	0.21
CBM-W1	CBM-W1	1.35
CBM-W2	CBM-W2	12.0
CIN	CIN	0.46
CPLE	CPLE	0.07
DEARBORN	DEARBORN	0.09

Bus #	Bus	MW Impact
G-007A	G-007A	0.05
IPL	IPL	0.24
LGEE	LGEE	0.07
MEC	MEC	4.04
NYISO	NYISO	0.05
O-066A	O-066A	0.02
VFT	VFT	0.12
Z1-043	Z1-043	42.98

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
823592	271655	HENNEEPIN; T	CE	926820	AC1-168 TAP	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	88.2	97.08	DC	37.85

Bus #	Bus	MW Impact
274832	U4-027	6.13
293771	O-035 E	5.44
294401	BSHIL;1U E	6.05
294410	BSHIL;2U E	6.05
916211	Z1-072 E	4.11
919621	AA2-039 C	1.47
919622	AA2-039 E	9.87
925581	AC1-033 C	0.99
925582	AC1-033 E	6.63
927201	AC1-214 C O1	1.75
927202	AC1-214 E O1	5.55
934051	AD1-031 C O1	2.01
934052	AD1-031 E O1	3.28
936511	AD2-066 C O1	8.64
936512	AD2-066 E O1	5.76
939631	AE1-193 C O1	4.92
939632	AE1-193 E O1	32.93
939681	AE1-198 C O1	14.61
939682	AE1-198 E O1	12.41
953201	J715 C	1.88
953202	J715 E	10.15
954201	J887 C	0.84
954202	J887 E	4.54
990901	L-005 E	8.19
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.71
CBM-S2	CBM-S2	0.19
CBM-W1	CBM-W1	1.69
CBM-W2	CBM-W2	10.8
CIN	CIN	0.36
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.08
G-007A	G-007A	0.04
IPL	IPL	0.19
LGEE	LGEE	0.06
MEC	MEC	4.0
NYISO	NYISO	0.05
O-066A	O-066A	0.02
VFT	VFT	0.12
WEC	WEC	0.05

Bus #	Bus	MW Impact
Z1-043	Z1-043	40.82

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821931	271835	KEWANEE ;23	CE	271839	KEWANEE ;22	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	49.66	138.12	DC	440.53

Bus #	Bus	MW Impact
293513	O-009 C1	2.77
293514	O-009 C2	1.4
293515	O-009 C3	1.55
293516	O-009 E1	72.28
293517	O-009 E2	36.71
293518	O-009 E3	40.43
926821	AC1-168 C O1	1.5
926822	AC1-168 E O1	10.1
934051	AD1-031 C O1	23.44
934052	AD1-031 E O1	38.24
939631	AE1-193 C O1	57.27
939632	AE1-193 E O1	383.26
939681	AE1-198 C O1	170.04
939682	AE1-198 E O1	144.49
953201	J715 C	1.5
953202	J715 E	8.11
BAYOU	BAYOU	0.21
BIG_CAJUN1	BIG_CAJUN1	0.31
BIG_CAJUN2	BIG_CAJUN2	0.62
BLUEG	BLUEG	0.1
CALDERWOOD	CALDERWOOD	0.05
CANNELTON	CANNELTON	0.02
CARR	CARR	0.0
CATAWBA	CATAWBA	0.02
CHEOAH	CHEOAH	0.04
CHILHOWEE	CHILHOWEE	0.02
CHOCTAW	CHOCTAW	0.18
COFFEEN	COFFEEN	0.09
COTTONWOOD	COTTONWOOD	0.87
DUCKCREEK	DUCKCREEK	0.55
EDWARDS	EDWARDS	0.05
ELMERSMITH	ELMERSMITH	0.03
FARMERCITY	FARMERCITY	0.19
G-007	G-007	0.01
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.06
MECS	MECS	0.16
NEWTON	NEWTON	0.16
O-066	O-066	0.03
PRAIRIE	PRAIRIE	0.63
RENSSELAER	RENSSELAER	0.0

Bus #	Bus	MW Impact
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.03
TATANKA	TATANKA	0.35
TILTON	TILTON	0.01
TRIMBLE	TRIMBLE	0.01
TVA	TVA	0.23
UNIONPOWER	UNIONPOWER	0.14
Z1-043	Z1-043	39.42

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823311	271837	KEWANEE ;12	CE	349637	4EDWARDS3	AMIL	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	189.0	94.91	136.43	DC	78.47

Bus #	Bus	MW Impact
274832	U4-027	15.76
274848	CAMPGROVE;RU	0.63
274849	CRESCENT ;1U	0.19
274851	PROVIDENC;RU	0.29
274877	BISHOP HL;1U	0.48
274878	BISHOP HL;2U	0.48
293771	O-035 E	7.64
294401	BSHIL;1U E	12.57
294410	BSHIL;2U E	12.57
916211	Z1-072 E	5.78
919621	AA2-039 C	3.06
919622	AA2-039 E	20.51
925581	AC1-033 C	2.06
925582	AC1-033 E	13.82
926821	AC1-168 C O1	0.72
926822	AC1-168 E O1	4.84
926841	AC1-171 C O1	0.64
926842	AC1-171 E O1	4.3
927201	AC1-214 C O1	2.45
927202	AC1-214 E O1	7.8
934051	AD1-031 C O1	4.17
934052	AD1-031 E O1	6.81
939631	AE1-193 C O1	10.2
939632	AE1-193 E O1	68.27
939681	AE1-198 C O1	30.29
939682	AE1-198 E O1	25.74
953201	J715 C	1.13
953202	J715 E	6.11
954201	J887 C	1.84
954202	J887 E	9.94
990901	L-005 E	16.45
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.05
CBM-S2	CBM-S2	0.02
CBM-W2	CBM-W2	0.35
CIN	CIN	0.09
CPLE	CPLE	0.01
DEARBORN	DEARBORN	0.0
DUCKCREEK	DUCKCREEK	1.24
EDWARDS	EDWARDS	1.91

Bus #	Bus	MW Impact
G-007A	G-007A	0.02
IPL	IPL	0.05
LGEE	LGEE	0.01
MEC	MEC	0.16
NYISO	NYISO	0.02
O-066A	O-066A	0.01
VFT	VFT	0.05
Z1-043	Z1-043	20.32

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822080	271838	KEWANEE ;13	CE	271837	KEWANEE ;12	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	80.81	121.95	DC	204.89

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.66
274877	BISHOP HL;1U	1.26
274878	BISHOP HL;2U	1.26
293513	O-009 C1	1.29
293514	O-009 C2	0.65
293515	O-009 C3	0.72
293516	O-009 E1	33.61
293517	O-009 E2	17.07
293518	O-009 E3	18.8
294401	BSHIL;1U E	32.84
294410	BSHIL;2U E	32.84
919621	AA2-039 C	8.0
919622	AA2-039 E	53.56
926821	AC1-168 C O1	1.05
926822	AC1-168 E O1	7.05
926841	AC1-171 C O1	1.82
926842	AC1-171 E O1	12.15
934051	AD1-031 C O1	10.9
934052	AD1-031 E O1	17.78
939631	AE1-193 C O1	26.64
939632	AE1-193 E O1	178.25
939681	AE1-198 C O1	79.09
939682	AE1-198 E O1	67.2
954201	J887 C	4.81
954202	J887 E	26.03
990901	L-005 E	43.31
CBM-N	CBM-N	0.06
CBM-S1	CBM-S1	0.51
CBM-S2	CBM-S2	0.19
CBM-W2	CBM-W2	7.03
CIN	CIN	0.54
CPLE	CPLE	0.07
EDWARDS	EDWARDS	0.24
FARMERCITY	FARMERCITY	0.04
G-007A	G-007A	0.19
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.04
NYISO	NYISO	0.26
O-066A	O-066A	0.09
TATANKA	TATANKA	0.28

Bus #	Bus	MW Impact
VFT	VFT	0.52
Z1-043	Z1-043	28.97

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823331	271838	KEWANEE ;13	CE	348923	4KEWANEE N	AMIL	Z1	COMED_P7_138-L6101___-S_+_138-L7713__R-S-B	tower	449.0	95.27	134.53	DC	176.29

Bus #	Bus	MW Impact
274832	U4-027	28.1
274848	CAMPGROVE;RU	1.41
274849	CRESCENT ;1U	0.52
274851	PROVIDENC;RU	0.8
274877	BISHOP HL;1U	1.08
274878	BISHOP HL;2U	1.08
293513	O-009 C1	0.44
293514	O-009 C2	0.22
293515	O-009 C3	0.25
293516	O-009 E1	11.49
293517	O-009 E2	5.84
293518	O-009 E3	6.43
293715	O-029 E	5.27
293716	O-029 E	2.89
293717	O-029 E	2.66
293771	O-035 E	20.89
294401	BSHIL;1U E	28.25
294410	BSHIL;2U E	28.25
916211	Z1-072 E	15.81
919621	AA2-039 C	6.89
919622	AA2-039 E	46.08
925581	AC1-033 C	4.63
925582	AC1-033 E	30.97
926841	AC1-171 C O1	1.41
926842	AC1-171 E O1	9.43
927201	AC1-214 C O1	6.7
927202	AC1-214 E O1	21.31
934051	AD1-031 C O1	9.38
934052	AD1-031 E O1	15.3
939631	AE1-193 C O1	22.92
939632	AE1-193 E O1	153.37
939681	AE1-198 C O1	68.05
939682	AE1-198 E O1	57.82
990901	L-005 E	36.88
BAYOU	BAYOU	0.18
BIG_CAJUN1	BIG_CAJUN1	0.27
BIG_CAJUN2	BIG_CAJUN2	0.54
BLUEG	BLUEG	0.5
CALDERWOOD	CALDERWOOD	0.07
CANNELTON	CANNELTON	0.04

Bus #	Bus	MW Impact
CARR	CARR	0.03
CATAWBA	CATAWBA	0.04
CBM-W1	CBM-W1	0.45
CHEOAH	CHEOAH	0.06
CHILHOWEE	CHILHOWEE	0.02
CHOCTAW	CHOCTAW	0.17
COFFEEN	COFFEEN	0.13
COTTONWOOD	COTTONWOOD	0.72
DEARBORN	DEARBORN	0.04
DUCKCREEK	DUCKCREEK	1.12
EDWARDS	EDWARDS	0.33
ELMERSMITH	ELMERSMITH	0.07
FARMERCITY	FARMERCITY	0.07
G-007	G-007	0.08
GIBSON	GIBSON	0.03
HAMLET	HAMLET	0.12
NEWTON	NEWTON	0.26
O-066	O-066	0.28
PRAIRIE	PRAIRIE	0.61
RENSSELAER	RENSSELAER	0.02
SANTEETLA	SANTEETLA	0.02
SMITHLAND	SMITHLAND	0.04
TILTON	TILTON	0.13
TRIMBLE	TRIMBLE	0.05
TVA	TVA	0.26
UNIONPOWER	UNIONPOWER	0.13
WEC	WEC	0.35

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822292	271839	KEWANEE ;22	CE	272607	TOULON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	336.0	40.26	88.28	DC	161.36

Bus #	Bus	MW Impact
274877	BISHOP HL;1U	0.99
274878	BISHOP HL;2U	0.99
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.94
293517	O-009 E2	5.05
293518	O-009 E3	5.56
293771	O-035 E	3.85
294401	BSHIL;1U E	25.84
294410	BSHIL;2U E	25.84
916211	Z1-072 E	2.91
919621	AA2-039 C	6.3
919622	AA2-039 E	42.16
926821	AC1-168 C O1	0.81
926822	AC1-168 E O1	5.44
927201	AC1-214 C O1	1.24
927202	AC1-214 E O1	3.93
934051	AD1-031 C O1	8.58
934052	AD1-031 E O1	14.01
939631	AE1-193 C O1	20.98
939632	AE1-193 E O1	140.38
939681	AE1-198 C O1	62.28
939682	AE1-198 E O1	52.93
953201	J715 C	1.0
953202	J715 E	5.43
BAYOU	BAYOU	0.18
BIG_CAJUN1	BIG_CAJUN1	0.28
BIG_CAJUN2	BIG_CAJUN2	0.56
BLUEG	BLUEG	0.82
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.07
CARR	CARR	0.03
CATAWBA	CATAWBA	0.05
CBM-W1	CBM-W1	1.87
CHEOAH	CHEOAH	0.08
CHILHOWEE	CHILHOWEE	0.03
CHOCTAW	CHOCTAW	0.19
COFFEEN	COFFEEN	0.36
COTTONWOOD	COTTONWOOD	0.7
DEARBORN	DEARBORN	0.02

Bus #	Bus	MW Impact
DUCKCREEK	DUCKCREEK	1.02
EDWARDS	EDWARDS	0.7
ELMERSMITH	ELMERSMITH	0.11
G-007	G-007	0.1
GIBSON	GIBSON	0.05
HAMLET	HAMLET	0.15
MEC	MEC	1.58
NEWTON	NEWTON	0.63
O-066	O-066	0.32
PRAIRIE	PRAIRIE	1.02
RENSSELAER	RENSSELAER	0.03
SANTEETLA	SANTEETLA	0.02
SMITHLAND	SMITHLAND	0.06
TILTON	TILTON	0.38
TRIMBLE	TRIMBLE	0.09
TVA	TVA	0.33
UNIONPOWER	UNIONPOWER	0.13
WEC	WEC	0.45
Z1-043	Z1-043	21.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821937	271839	KEWANEE ;22	CE	271845	KEWANEE ;21	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	71.25	143.6	DC	360.29

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	2.91
293513	O-009 C1	2.26
293514	O-009 C2	1.15
293515	O-009 C3	1.27
293516	O-009 E1	59.11
293517	O-009 E2	30.02
293518	O-009 E3	33.06
926841	AC1-171 C O1	3.11
926842	AC1-171 E O1	20.78
934051	AD1-031 C O1	19.17
934052	AD1-031 E O1	31.27
939631	AE1-193 C O1	46.84
939632	AE1-193 E O1	313.45
939681	AE1-198 C O1	139.07
939682	AE1-198 E O1	118.18
990901	L-005 E	75.95
BAYOU	BAYOU	0.05
BIG_CAJUN1	BIG_CAJUN1	0.06
BIG_CAJUN2	BIG_CAJUN2	0.11
CBM-N	CBM-N	0.06
CBM-S1	CBM-S1	0.22
CBM-S2	CBM-S2	0.11
CBM-W2	CBM-W2	3.56
CIN	CIN	0.63
COTTONWOOD	COTTONWOOD	0.25
CPLE	CPLE	0.05
FARMERCITY	FARMERCITY	0.26
G-007A	G-007A	0.19
IPL	IPL	0.35
LGEE	LGEE	0.1
MECS	MECS	0.14
NYISO	NYISO	0.26
O-066A	O-066A	0.09
TATANKA	TATANKA	0.65
UNIONPOWER	UNIONPOWER	0.03
VFT	VFT	0.51
Z1-043	Z1-043	16.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823470	271844	KICKAPOO ; B	CE	271908	LASCO STA; B	CE	1	COMED_P7_138-L1206__R-S_+_345-L2311__R-S	tower	498.0	100.57	111.01	DC	51.98

Bus #	Bus	MW Impact
274832	U4-027	8.41
274847	GR RIDGE ;BU	4.04
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.31
274871	GR RIDGE ;2U	5.13
274877	BISHOP HL;1U	0.32
274878	BISHOP HL;2U	0.32
293061	N-015 E	105.38
293771	O-035 E	8.08
294392	P-010 E	133.83
294401	BSHIL;1U E	8.31
294410	BSHIL;2U E	8.31
916211	Z1-072 E	6.11
917451	Z2-081	1.24
919621	AA2-039 C	2.03
919622	AA2-039 E	13.56
925581	AC1-033 C	1.36
925582	AC1-033 E	9.11
926821	AC1-168 C O1	3.02
926822	AC1-168 E O1	20.26
927201	AC1-214 C O1	2.59
927202	AC1-214 E O1	8.24
934051	AD1-031 C O1	2.77
934052	AD1-031 E O1	4.51
936511	AD2-066 C O1	13.99
936512	AD2-066 E O1	9.33
939631	AE1-193 C O1	6.76
939632	AE1-193 E O1	45.22
939681	AE1-198 C O1	20.06
939682	AE1-198 E O1	17.05
953201	J715 C	3.06
953202	J715 E	16.57
954201	J887 C	1.16
954202	J887 E	6.26
990901	L-005 E	11.25
AB2-013	AB2-013	5.34
CARR	CARR	0.01
CBM-S1	CBM-S1	0.87
CBM-S2	CBM-S2	0.2
CBM-W1	CBM-W1	2.04

Bus #	Bus	MW Impact
CBM-W2	CBM-W2	14.12
CIN	CIN	0.43
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.14
G-007	G-007	0.02
IPL	IPL	0.21
LGEE	LGEE	0.05
MEC	MEC	5.3
O-066	O-066	0.06
RENSSELAER	RENSSELAER	0.01
WEC	WEC	0.03
Z1-043	Z1-043	54.04

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823509	271908	LASCO STA; B	CE	270802	LASCO STA; B	CE	1	COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A	tower	498.0	96.01	106.28	DC	51.13

Bus #	Bus	MW Impact
274832	U4-027	8.28
274847	GR RIDGE ;BU	3.97
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.3
274871	GR RIDGE ;2U	5.04
274877	BISHOP HL;1U	0.31
274878	BISHOP HL;2U	0.31
293061	N-015 E	103.47
293771	O-035 E	7.94
294392	P-010 E	131.41
294401	BSHIL;1U E	8.18
294410	BSHIL;2U E	8.18
916211	Z1-072 E	6.01
917451	Z2-081	1.22
919621	AA2-039 C	1.99
919622	AA2-039 E	13.34
925581	AC1-033 C	1.34
925582	AC1-033 E	8.96
926821	AC1-168 C O1	2.97
926822	AC1-168 E O1	19.9
927201	AC1-214 C O1	2.55
927202	AC1-214 E O1	8.1
934051	AD1-031 C O1	2.72
934052	AD1-031 E O1	4.44
936511	AD2-066 C O1	13.75
936512	AD2-066 E O1	9.17
939631	AE1-193 C O1	6.65
939632	AE1-193 E O1	44.49
939681	AE1-198 C O1	19.74
939682	AE1-198 E O1	16.77
953201	J715 C	3.01
953202	J715 E	16.27
954201	J887 C	1.14
954202	J887 E	6.16
990901	L-005 E	11.07
AB2-013	AB2-013	5.3
CARR	CARR	0.01
CBM-S1	CBM-S1	0.87
CBM-S2	CBM-S2	0.2
CBM-W1	CBM-W1	2.05

Bus #	Bus	MW Impact
CBM-W2	CBM-W2	14.08
CIN	CIN	0.43
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.14
G-007	G-007	0.02
IPL	IPL	0.22
LGEE	LGEE	0.05
MEC	MEC	5.28
O-066	O-066	0.05
RENSSELAER	RENSSELAER	0.01
WEC	WEC	0.04
Z1-043	Z1-043	53.11

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822423	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	71.44	89.31	DC	92.92

Bus #	Bus	MW Impact
272363	ESS H440 ; R	0.58
274832	U4-027	27.73
274848	CAMPGROVE;RU	0.76
274849	CRESCENT ;1U	0.23
274850	MENDOTA H;RU	0.14
274851	PROVIDENC;RU	0.35
274855	GSG-6 ;RU	0.59
274872	LEE DEKAL;1U	0.84
274877	BISHOP HL;1U	0.57
274878	BISHOP HL;2U	0.57
290051	GSG-6; E	15.38
290108	LEEDK;1U E	22.77
293513	O-009 C1	1.5
293514	O-009 C2	0.76
293515	O-009 C3	0.84
293516	O-009 E1	39.16
293517	O-009 E2	19.89
293518	O-009 E3	21.9
293712	O-029 C	1.88
293713	O-029 C	1.03
293714	O-029 C	0.95
293715	O-029 E	48.99
293716	O-029 E	26.86
293717	O-029 E	24.69
293771	O-035 E	9.22
294401	BSHIL;1U E	14.85
294410	BSHIL;2U E	14.85
294763	P-046 E	6.26
295108	WESTBROOK C	0.21
295109	WESTBROOK E	8.23
295110	SUBLETTE C	0.18
295111	SUBLETTE E	7.76
905471	W4-084	0.19
907361	X1-087	0.31
916211	Z1-072 E	6.98
916221	Z1-073 E	7.94
919621	AA2-039 C	3.62
919622	AA2-039 E	24.22
925301	AB2-191 C	0.23
925302	AB2-191 E	2.04
925581	AC1-033 C	2.43

Bus #	Bus	MW Impact
925582	AC1-033 E	16.29
926821	AC1-168 C O1	0.97
926822	AC1-168 E O1	6.52
926841	AC1-171 C O1	0.87
926842	AC1-171 E O1	5.82
927201	AC1-214 C O1	2.96
927202	AC1-214 E O1	9.41
933341	AC2-147 C	1.48
933342	AC2-147 E	2.41
933911	AD1-013 C	2.63
933912	AD1-013 E	4.2
934051	AD1-031 C O1	4.94
934052	AD1-031 E O1	8.07
934431	AD1-067 C	0.19
934432	AD1-067 E	0.81
934651	AD1-096 C	1.01
934652	AD1-096 E	1.65
934701	AD1-098 C O1	10.67
934702	AD1-098 E O1	7.79
934881	AD1-117 C	9.08
934882	AD1-117 E	6.06
937001	AD2-134 C	4.02
937002	AD2-134 E	16.61
937311	AD2-172 C	1.64
937312	AD2-172 E	2.27
938861	AE1-114 C O1	6.04
938862	AE1-114 E O1	23.08
939631	AE1-193 C O1	12.08
939632	AE1-193 E O1	80.84
939681	AE1-198 C O1	35.87
939682	AE1-198 E O1	30.48
939691	AE1-199	3.41
939921	AE1-228 C O1	13.95
939922	AE1-228 E O1	9.3
939961	AE1-233 C O1	1.23
939962	AE1-233 E O1	5.07
953201	J715 C	1.58
953202	J715 E	8.56
954201	J887 C	2.24
954202	J887 E	12.09
990901	L-005 E	19.73
BAYOU	BAYOU	0.37
BIG_CAJUN1	BIG_CAJUN1	0.51
BIG_CAJUN2	BIG_CAJUN2	1.04
CALDERWOOD	CALDERWOOD	0.03
CATAWBA	CATAWBA	0.0
CBM-N	CBM-N	0.06
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.26
CIN	CIN	0.42
COTTONWOOD	COTTONWOOD	1.56

Bus #	Bus	MW Impact
CPLE	CPLE	0.01
FARMERCITY	FARMERCITY	0.55
G-007A	G-007A	0.19
HAMLET	HAMLET	0.0
IPL	IPL	0.25
LGEE	LGEE	0.07
MECS	MECS	0.5
NYISO	NYISO	0.27
O-066A	O-066A	0.09
PRAIRIE	PRAIRIE	0.59
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.03
TATANKA	TATANKA	1.17
TVA	TVA	0.26
UNIONPOWER	UNIONPOWER	0.25
VFT	VFT	0.52
Z1-043	Z1-043	27.51

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821921	272111	NORMANDY ; R	CE	293510	O09 OP1 138	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	95.71	162.65	DC	153.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293771	O-035 E	4.15
294401	BSHIL;1U E	24.62
294410	BSHIL;2U E	24.62
916211	Z1-072 E	3.14
919621	AA2-039 C	6.0
919622	AA2-039 E	40.16
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.57
926841	AC1-171 C O1	1.39
926842	AC1-171 E O1	9.25
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.24
934051	AD1-031 C O1	8.19
934052	AD1-031 E O1	13.36
939631	AE1-193 C O1	20.01
939632	AE1-193 E O1	133.95
939681	AE1-198 C O1	59.43
939682	AE1-198 E O1	50.5
953201	J715 C	1.14
953202	J715 E	6.16
954201	J887 C	0.59
954202	J887 E	3.19
990901	L-005 E	32.55
BAYOU	BAYOU	0.02
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.26
CBM-S2	CBM-S2	0.14
CBM-W2	CBM-W2	4.06
CIN	CIN	0.54
COTTONWOOD	COTTONWOOD	0.09
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.21
G-007A	G-007A	0.22
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.23
NYISO	NYISO	0.3

Bus #	Bus	MW Impact
O-066A	O-066A	0.1
TATANKA	TATANKA	0.58
UNIONPOWER	UNIONPOWER	0.0
VFT	VFT	0.59
Z1-043	Z1-043	22.77

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822149	272189	OGLESBY ; T	CE	936510	AD2-066 TAP	CE	1	COMED_P4_001-38-TR81___	breaker	223.0	124.86	133.82	DC	44.32

Bus #	Bus	MW Impact
274832	U4-027	7.15
274847	GR RIDGE ;BU	0.82
274849	CRESCENT ;1U	0.2
274851	PROVIDENC;RU	0.3
274871	GR RIDGE ;2U	1.04
293061	N-015 E	21.37
293771	O-035 E	7.88
294392	P-010 E	27.14
294401	BSHIL;1U E	7.09
294410	BSHIL;2U E	7.09
916211	Z1-072 E	5.96
917451	Z2-081	0.35
919621	AA2-039 C	1.73
919622	AA2-039 E	11.57
925581	AC1-033 C	1.16
925582	AC1-033 E	7.77
926821	AC1-168 C O1	1.69
926822	AC1-168 E O1	11.35
927201	AC1-214 C O1	2.53
927202	AC1-214 E O1	8.04
934051	AD1-031 C O1	2.36
934052	AD1-031 E O1	3.85
939631	AE1-193 C O1	5.76
939632	AE1-193 E O1	38.56
939681	AE1-198 C O1	17.11
939682	AE1-198 E O1	14.54
953201	J715 C	3.38
953202	J715 E	18.26
954201	J887 C	0.99
954202	J887 E	5.37
990901	L-005 E	9.6
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.8
CBM-S2	CBM-S2	0.21
CBM-W1	CBM-W1	1.35
CBM-W2	CBM-W2	12.0
CIN	CIN	0.46
CPLE	CPLE	0.07
DEARBORN	DEARBORN	0.09
G-007A	G-007A	0.05

Bus #	Bus	MW Impact
IPL	IPL	0.24
LGEE	LGEE	0.07
MEC	MEC	4.04
NYISO	NYISO	0.05
O-066A	O-066A	0.02
VFT	VFT	0.12
Z1-043	Z1-043	42.98

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822248	272285	POWERTON ;RT	CE	349505	4HUFF	AMIL	1	COMED_P4_074-38-L7413__	breaker	268.0	75.54	104.63	DC	77.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	0.9
274877	BISHOP HL;1U	0.48
274878	BISHOP HL;2U	0.48
293516	O-009 E1	4.96
293517	O-009 E2	2.52
293518	O-009 E3	2.78
294401	BSHIL;1U E	12.49
294410	BSHIL;2U E	12.49
919621	AA2-039 C	3.04
919622	AA2-039 E	20.37
926841	AC1-171 C O1	3.57
926842	AC1-171 E O1	23.85
934051	AD1-031 C O1	4.15
934052	AD1-031 E O1	6.77
939631	AE1-193 C O1	10.13
939632	AE1-193 E O1	67.83
939681	AE1-198 C O1	30.09
939682	AE1-198 E O1	25.57
990901	L-005 E	23.55
BLUEG	BLUEG	0.51
CANNELTON	CANNELTON	0.03
CARR	CARR	0.02
CATAWBA	CATAWBA	0.01
CBM-S1	CBM-S1	0.06
CBM-W1	CBM-W1	2.04
CBM-W2	CBM-W2	2.81
COFFEEN	COFFEEN	0.06
DEARBORN	DEARBORN	0.05
EDWARDS	EDWARDS	1.76
ELMERSMITH	ELMERSMITH	0.04
G-007	G-007	0.06
GIBSON	GIBSON	0.03
HAMLET	HAMLET	0.03
MEC	MEC	3.32
NEWTON	NEWTON	0.22
O-066	O-066	0.2
RENSSELAER	RENSSELAER	0.02
TILTON	TILTON	0.45
TRIMBLE	TRIMBLE	0.06
WEC	WEC	0.28
Z1-043	Z1-043	9.52

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823579	272367	ROCK FALL; R	CE	272366	ROCK FALL; B	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	230.0	88.49	98.07	DC	48.83

Bus #	Bus	MW Impact
293513	O-009 C1	2.02
293514	O-009 C2	1.03
293515	O-009 C3	1.13
293516	O-009 E1	52.76
293517	O-009 E2	26.8
293518	O-009 E3	29.51
293771	O-035 E	4.77
294401	BSHIL;1U E	7.76
294410	BSHIL;2U E	7.76
916211	Z1-072 E	3.61
919621	AA2-039 C	1.89
919622	AA2-039 E	12.65
925581	AC1-033 C	1.26
925582	AC1-033 E	8.45
927201	AC1-214 C O1	1.53
927202	AC1-214 E O1	4.87
934051	AD1-031 C O1	2.6
934052	AD1-031 E O1	4.24
939631	AE1-193 C O1	6.35
939632	AE1-193 E O1	42.49
939681	AE1-198 C O1	18.85
939682	AE1-198 E O1	16.02
954201	J887 C	1.15
954202	J887 E	6.2
990901	L-005 E	10.37
CBM-N	CBM-N	0.03
CBM-S1	CBM-S1	0.16
CBM-S2	CBM-S2	0.07
CBM-W2	CBM-W2	2.69
CIN	CIN	0.28
CPLE	CPLE	0.03
FARMERCITY	FARMERCITY	0.1
G-007A	G-007A	0.11
IPL	IPL	0.16
LGEE	LGEE	0.05
MECS	MECS	0.09
NYISO	NYISO	0.15
O-066A	O-066A	0.05
TATANKA	TATANKA	0.32
VFT	VFT	0.29

Bus #	Bus	MW Impact
Z1-043	Z1-043	14.37

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821991	272607	TOULON ; R	CE	272269	POWERTON ;	CE	1	COMED_P4_074-38-L7413__	breaker	274.0	76.59	135.45	DC	161.28

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.86
274877	BISHOP HL;1U	0.99
274878	BISHOP HL;2U	0.99
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.92
293517	O-009 E2	5.04
293518	O-009 E3	5.55
293771	O-035 E	3.84
294401	BSHIL;1U E	25.83
294410	BSHIL;2U E	25.83
916211	Z1-072 E	2.91
919621	AA2-039 C	6.3
919622	AA2-039 E	42.14
926821	AC1-168 C O1	0.81
926822	AC1-168 E O1	5.43
927201	AC1-214 C O1	1.23
927202	AC1-214 E O1	3.92
934051	AD1-031 C O1	8.58
934052	AD1-031 E O1	14.0
939631	AE1-193 C O1	20.97
939632	AE1-193 E O1	140.31
939681	AE1-198 C O1	62.25
939682	AE1-198 E O1	52.9
953201	J715 C	1.0
953202	J715 E	5.43
990901	L-005 E	48.61
BAYOU	BAYOU	0.19
BIG_CAJUN1	BIG_CAJUN1	0.3
BIG_CAJUN2	BIG_CAJUN2	0.61
BLUEG	BLUEG	0.9
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.07
CARR	CARR	0.04
CATAWBA	CATAWBA	0.05
CBM-W1	CBM-W1	1.78
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
CHOCTAW	CHOCTAW	0.21
COFFEEN	COFFEEN	0.37

Bus #	Bus	MW Impact
COTTONWOOD	COTTONWOOD	0.77
DEARBORN	DEARBORN	0.03
DUCKCREEK	DUCKCREEK	1.03
EDWARDS	EDWARDS	0.71
ELMERSMITH	ELMERSMITH	0.12
G-007	G-007	0.11
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.17
MEC	MEC	1.51
NEWTON	NEWTON	0.65
O-066	O-066	0.38
PRAIRIE	PRAIRIE	1.06
RENSSELAER	RENSSELAER	0.03
SANTEETLA	SANTEETLA	0.03
SMITHLAND	SMITHLAND	0.06
TILTON	TILTON	0.39
TRIMBLE	TRIMBLE	0.1
TVA	TVA	0.36
UNIONPOWER	UNIONPOWER	0.14
WEC	WEC	0.44
Z1-043	Z1-043	21.92

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822425	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	71.44	89.31	DC	92.92

Bus #	Bus	MW Impact
272363	ESS H440 ; R	0.58
274832	U4-027	27.73
274848	CAMPGROVE;RU	0.76
274849	CRESCENT ;1U	0.23
274850	MENDOTA H;RU	0.14
274851	PROVIDENC;RU	0.35
274855	GSG-6 ;RU	0.59
274872	LEE DEKAL;1U	0.84
274877	BISHOP HL;1U	0.57
274878	BISHOP HL;2U	0.57
290051	GSG-6; E	15.38
290108	LEEDK;1U E	22.77
293513	O-009 C1	1.5
293514	O-009 C2	0.76
293515	O-009 C3	0.84
293516	O-009 E1	39.16
293517	O-009 E2	19.89
293518	O-009 E3	21.9
293712	O-029 C	1.88
293713	O-029 C	1.03
293714	O-029 C	0.95
293715	O-029 E	48.99
293716	O-029 E	26.86
293717	O-029 E	24.69
293771	O-035 E	9.22
294401	BSHIL;1U E	14.85
294410	BSHIL;2U E	14.85
294763	P-046 E	6.26
295108	WESTBROOK C	0.21
295109	WESTBROOK E	8.23
295110	SUBLETTE C	0.18
295111	SUBLETTE E	7.76
905471	W4-084	0.19
907361	X1-087	0.31
916211	Z1-072 E	6.98
916221	Z1-073 E	7.94
919621	AA2-039 C	3.62
919622	AA2-039 E	24.22
925301	AB2-191 C	0.23
925302	AB2-191 E	2.04
925581	AC1-033 C	2.43

Bus #	Bus	MW Impact
925582	AC1-033 E	16.29
926821	AC1-168 C O1	0.97
926822	AC1-168 E O1	6.52
926841	AC1-171 C O1	0.87
926842	AC1-171 E O1	5.82
927201	AC1-214 C O1	2.96
927202	AC1-214 E O1	9.41
933341	AC2-147 C	1.48
933342	AC2-147 E	2.41
933911	AD1-013 C	2.63
933912	AD1-013 E	4.2
934051	AD1-031 C O1	4.94
934052	AD1-031 E O1	8.07
934431	AD1-067 C	0.19
934432	AD1-067 E	0.81
934651	AD1-096 C	1.01
934652	AD1-096 E	1.65
934701	AD1-098 C O1	10.67
934702	AD1-098 E O1	7.79
934881	AD1-117 C	9.08
934882	AD1-117 E	6.06
937001	AD2-134 C	4.02
937002	AD2-134 E	16.61
937311	AD2-172 C	1.64
937312	AD2-172 E	2.27
938861	AE1-114 C O1	6.04
938862	AE1-114 E O1	23.08
939631	AE1-193 C O1	12.08
939632	AE1-193 E O1	80.84
939681	AE1-198 C O1	35.87
939682	AE1-198 E O1	30.48
939691	AE1-199	3.41
939921	AE1-228 C O1	13.95
939922	AE1-228 E O1	9.3
939961	AE1-233 C O1	1.23
939962	AE1-233 E O1	5.07
953201	J715 C	1.58
953202	J715 E	8.56
954201	J887 C	2.24
954202	J887 E	12.09
990901	L-005 E	19.73
BAYOU	BAYOU	0.37
BIG_CAJUN1	BIG_CAJUN1	0.51
BIG_CAJUN2	BIG_CAJUN2	1.04
CALDERWOOD	CALDERWOOD	0.03
CATAWBA	CATAWBA	0.0
CBM-N	CBM-N	0.06
CHEOAH	CHEOAH	0.03
CHILHOWEE	CHILHOWEE	0.01
CHOCTAW	CHOCTAW	0.26
CIN	CIN	0.42
COTTONWOOD	COTTONWOOD	1.56

Bus #	Bus	MW Impact
CPLE	CPLE	0.01
FARMERCITY	FARMERCITY	0.55
G-007A	G-007A	0.19
HAMLET	HAMLET	0.0
IPL	IPL	0.25
LGEE	LGEE	0.07
MECS	MECS	0.5
NYISO	NYISO	0.27
O-066A	O-066A	0.09
PRAIRIE	PRAIRIE	0.59
SANTEETLA	SANTEETLA	0.01
SMITHLAND	SMITHLAND	0.03
TATANKA	TATANKA	1.17
TVA	TVA	0.26
UNIONPOWER	UNIONPOWER	0.25
VFT	VFT	0.52
Z1-043	Z1-043	27.51

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822306	293710	O29	CE	272366	ROCK FALL; B	CE	1	COMED_P4_155-38-L15508_	breaker	498.0	90.34	107.7	DC	86.47

Bus #	Bus	MW Impact
274832	U4-027	34.46
274848	CAMPGROVE;RU	0.71
274849	CRESCENT ;1U	0.22
274851	PROVIDENC;RU	0.33
274877	BISHOP HL;1U	0.53
274878	BISHOP HL;2U	0.53
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.97
293517	O-009 E2	5.06
293518	O-009 E3	5.57
293712	O-029 C	2.92
293713	O-029 C	1.6
293714	O-029 C	1.48
293715	O-029 E	76.19
293716	O-029 E	41.77
293717	O-029 E	38.39
293771	O-035 E	8.63
294401	BSHIL;1U E	13.86
294410	BSHIL;2U E	13.86
916211	Z1-072 E	6.53
919621	AA2-039 C	3.38
919622	AA2-039 E	22.61
925581	AC1-033 C	2.28
925582	AC1-033 E	15.24
926821	AC1-168 C O1	0.9
926822	AC1-168 E O1	6.07
926841	AC1-171 C O1	0.83
926842	AC1-171 E O1	5.55
927201	AC1-214 C O1	2.77
927202	AC1-214 E O1	8.8
934051	AD1-031 C O1	4.6
934052	AD1-031 E O1	7.51
939631	AE1-193 C O1	11.24
939632	AE1-193 E O1	75.23
939681	AE1-198 C O1	33.38
939682	AE1-198 E O1	28.36
953201	J715 C	1.44
953202	J715 E	7.81
954201	J887 C	2.07

Bus #	Bus	MW Impact
954202	J887 E	11.18
990901	L-005 E	18.43
BAYOU	BAYOU	0.06
BIG_CAJUN1	BIG_CAJUN1	0.06
BIG_CAJUN2	BIG_CAJUN2	0.13
CBM-N	CBM-N	0.05
CBM-S1	CBM-S1	0.16
CBM-S2	CBM-S2	0.09
CBM-W2	CBM-W2	3.44
CHOCTAW	CHOCTAW	0.01
CIN	CIN	0.46
COTTONWOOD	COTTONWOOD	0.27
CPLE	CPLE	0.04
FARMERCITY	FARMERCITY	0.24
G-007A	G-007A	0.17
IPL	IPL	0.26
LGEE	LGEE	0.08
MECS	MECS	0.19
NYISO	NYISO	0.23
O-066A	O-066A	0.08
TATANKA	TATANKA	0.68
UNIONPOWER	UNIONPOWER	0.03
VFT	VFT	0.46
Z1-043	Z1-043	25.69

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823539	918050	AA1-018 TAP	CE	270769	GOODINGS ;2R	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	91.55	92.42	DC	28.67

Bus #	Bus	MW Impact
274677	POWERTON ;5U	24.82
274678	POWERTON ;6U	24.88
274879	MINONK ;1U	1.29
290021	O50 E	33.68
293644	O22 E1	6.5
293645	O22 E2	12.61
294401	BSHIL;1U E	4.59
294410	BSHIL;2U E	4.59
918051	AA1-018 C	1.89
918052	AA1-018 E	82.43
919621	AA2-039 C	1.12
919622	AA2-039 E	7.49
925581	AC1-033 C	0.75
925582	AC1-033 E	5.03
926841	AC1-171 C O1	0.64
926842	AC1-171 E O1	4.29
930741	AB1-122 1O1	102.48
930751	AB1-122 2O1	121.04
934051	AD1-031 C O1	1.53
934052	AD1-031 E O1	2.49
934101	AD1-039 1	10.04
934111	AD1-039 2	11.86
934871	AD1-116 C	4.8
934872	AD1-116 E	7.83
936291	AD2-038 C O1	8.22
936292	AD2-038 E O1	54.98
938851	AE1-113 C O1	30.5
938852	AE1-113 E O1	95.89
939321	AE1-163 C O1	7.42
939322	AE1-163 E O1	45.55
939631	AE1-193 C O1	3.73
939632	AE1-193 E O1	24.94
939681	AE1-198 C O1	11.07
939682	AE1-198 E O1	9.4
939861	AE1-222 1	113.17
939871	AE1-222 2	133.67
951631	J456 C	1.31
951632	J456 E	7.1
954702	J844 E	20.17
990901	L-005 E	7.01

Bus #	Bus	MW Impact
AB2-013	AB2-013	21.27
CARR	CARR	0.05
CBM-S1	CBM-S1	2.46
CBM-S2	CBM-S2	0.52
CBM-W1	CBM-W1	4.37
CBM-W2	CBM-W2	37.42
CIN	CIN	0.84
CPLE	CPLE	0.14
DEARBORN	DEARBORN	0.49
G-007	G-007	0.12
IPL	IPL	0.4
LGEE	LGEE	0.09
MEC	MEC	14.95
O-066	O-066	0.42
RENSSELAER	RENSSELAER	0.04
Z1-043	Z1-043	13.46

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823499	926820	AC1-168 TAP	CE	272521	STREATOR ;	CE	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	192.0	98.95	107.83	DC	37.85

Bus #	Bus	MW Impact
274832	U4-027	6.13
293771	O-035 E	5.44
294401	BSHIL;1U E	6.05
294410	BSHIL;2U E	6.05
916211	Z1-072 E	4.11
919621	AA2-039 C	1.47
919622	AA2-039 E	9.87
925581	AC1-033 C	0.99
925582	AC1-033 E	6.63
926821	AC1-168 C O1	2.68
926822	AC1-168 E O1	17.96
927201	AC1-214 C O1	1.75
927202	AC1-214 E O1	5.55
934051	AD1-031 C O1	2.01
934052	AD1-031 E O1	3.28
936511	AD2-066 C O1	8.64
936512	AD2-066 E O1	5.76
939631	AE1-193 C O1	4.92
939632	AE1-193 E O1	32.93
939681	AE1-198 C O1	14.61
939682	AE1-198 E O1	12.41
953201	J715 C	1.88
953202	J715 E	10.15
954201	J887 C	0.84
954202	J887 E	4.54
990901	L-005 E	8.19
CBM-N	CBM-N	0.01
CBM-S1	CBM-S1	0.71
CBM-S2	CBM-S2	0.19
CBM-W1	CBM-W1	1.69
CBM-W2	CBM-W2	10.8
CIN	CIN	0.36
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.08
G-007A	G-007A	0.04
IPL	IPL	0.19
LGEE	LGEE	0.06
MEC	MEC	4.0
NYISO	NYISO	0.05
O-066A	O-066A	0.02

Bus #	Bus	MW Impact
VFT	VFT	0.12
WEC	WEC	0.05
Z1-043	Z1-043	40.82

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823598	936290	AD2-038 TAP	CE	918050	AA1-018 TAP	CE	1	COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	tower	1494.0	85.2	86.07	DC	28.73

Bus #	Bus	MW Impact
274677	POWERTON ;5U	24.83
274678	POWERTON ;6U	24.89
274879	MINONK ;1U	1.29
290021	O50 E	33.7
293644	O22 E1	6.5
293645	O22 E2	12.63
293771	O-035 E	3.1
294401	BSHIL;1U E	4.6
294410	BSHIL;2U E	4.6
916211	Z1-072 E	2.34
919621	AA2-039 C	1.12
919622	AA2-039 E	7.5
925581	AC1-033 C	0.75
925582	AC1-033 E	5.04
926841	AC1-171 C O1	0.64
926842	AC1-171 E O1	4.29
927201	AC1-214 C O1	0.99
927202	AC1-214 E O1	3.16
930741	AB1-122 1O1	102.53
930751	AB1-122 2O1	121.11
934051	AD1-031 C O1	1.53
934052	AD1-031 E O1	2.49
934101	AD1-039 1	10.05
934111	AD1-039 2	11.87
936291	AD2-038 C O1	8.22
936292	AD2-038 E O1	55.0
938851	AE1-113 C O1	30.51
938852	AE1-113 E O1	95.92
939321	AE1-163 C O1	7.42
939322	AE1-163 E O1	45.58
939631	AE1-193 C O1	3.73
939632	AE1-193 E O1	24.99
939681	AE1-198 C O1	11.09
939682	AE1-198 E O1	9.42
939861	AE1-222 1	113.23
939871	AE1-222 2	133.74
951631	J456 C	1.31
951632	J456 E	7.1
953951	J859	8.13
954702	J844 E	20.17

Bus #	Bus	MW Impact
990901	L-005 E	7.02
AB2-013	AB2-013	21.29
CARR	CARR	0.04
CBM-S1	CBM-S1	2.49
CBM-S2	CBM-S2	0.53
CBM-W1	CBM-W1	4.43
CBM-W2	CBM-W2	37.66
CIN	CIN	0.86
CPLE	CPLE	0.15
DEARBORN	DEARBORN	0.48
G-007	G-007	0.11
IPL	IPL	0.42
LGEE	LGEE	0.09
MEC	MEC	15.0
O-066	O-066	0.38
RENSSELAER	RENSSELAER	0.04
Z1-043	Z1-043	13.48

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
508190	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	174.48	175.13	DC	61.6

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	13.92
274722	S-055 E	12.95
274724	RIVER EC ;11	4.75
274788	SE CHICAG;5U	1.14
274789	SE CHICAG;6U	1.14
274790	SE CHICAG;7U	1.14
274791	SE CHICAG;8U	1.14
274795	SE CHICAG;2U	1.12
274832	U4-027	12.45
274859	EASYR;U1 E	12.67
274860	EASYR;U2 E	12.67
274888	PILOT HIL;1E	22.3
274890	CAYUG;1U E	15.76
274891	CAYUG;2U E	15.76
275149	KEMPTON ;1E	22.3
290021	O50 E	22.31
290051	GSG-6; E	12.02
290108	LEEDK;1U E	27.92
293061	N-015 E	17.54
293516	O-009 E1	10.45
293517	O-009 E2	5.31
293518	O-009 E3	5.85
293644	O22 E1	11.95
293645	O22 E2	23.2
293715	O-029 E	11.27
293716	O-029 E	6.18
293717	O-029 E	5.68
293771	O-035 E	7.36
294392	P-010 E	22.27
294763	P-046 E	10.8
295109	WESTBROOK E	6.44
295111	SUBLETTE E	2.99
910542	X3-005 E	1.0
914641	Y2-103	51.8
915011	Y3-013 1	4.32
915021	Y3-013 2	4.32
915031	Y3-013 3	4.32
916211	Z1-072 E	5.57
916221	Z1-073 E	6.2
916502	Z1-106 E1	1.45
916504	Z1-106 E2	1.45

Bus #	Bus	MW Impact
916512	Z1-107 E	3.03
916522	Z1-108 E	2.86
918052	AA1-018 E	18.74
919221	AA1-146	20.28
919581	AA2-030	20.28
920272	AA2-123 E	2.81
924471	AB2-096	48.73
925161	AB2-173	3.62
925302	AB2-191 E	1.59
925581	AC1-033 C	1.61
925582	AC1-033 E	10.81
925881	AC1-067 O1	198.49
926311	AC1-109 1	2.19
926321	AC1-109 2	2.19
926331	AC1-110 1	2.18
926341	AC1-110 2	2.18
926351	AC1-111 1	0.88
926361	AC1-111 2	0.88
926371	AC1-111 3	0.88
926381	AC1-111 4	0.88
926391	AC1-111 5	0.88
926401	AC1-111 6	0.88
926431	AC1-114	2.74
926821	AC1-168 C O1	1.32
926822	AC1-168 E O1	8.85
927091	AC1-204 1	83.26
927101	AC1-204 2	83.23
927201	AC1-214 C O1	2.36
927202	AC1-214 E O1	7.51
927451	AC1-142A 1	4.83
927461	AC1-142A 2	4.84
927511	AC1-113 1	1.37
927521	AC1-113 2	1.37
927531	AC1-185 1	0.79
927541	AC1-185 2	0.79
927551	AC1-185 3	0.79
927561	AC1-185 4	0.79
927571	AC1-185 5	0.79
927581	AC1-185 6	0.79
927591	AC1-185 7	0.79
927601	AC1-185 8	0.79
930481	AB1-089	75.67
930501	AB1-091 O1	88.22
930741	AB1-122 1O1	82.42
930751	AB1-122 2O1	84.95
932881	AC2-115 1	2.74
932891	AC2-115 2	2.74
932921	AC2-116	0.96
932931	AC2-117	5.81
933341	AC2-147 C	1.0
933342	AC2-147 E	1.64
933411	AC2-154 C	3.03

Bus #	Bus	MW Impact
933412	AC2-154 E	4.94
933431	AC2-156 C O1	1.1
933432	AC2-156 E O1	1.79
933911	AD1-013 C	2.12
933912	AD1-013 E	3.38
933931	AD1-016 C	1.07
933932	AD1-016 E	1.74
934101	AD1-039 1	8.08
934111	AD1-039 2	8.33
934401	AD1-064 C O1	3.69
934402	AD1-064 E O1	17.25
934431	AD1-067 C	0.15
934432	AD1-067 E	0.63
934651	AD1-096 C	1.03
934652	AD1-096 E	1.67
934701	AD1-098 C O1	7.91
934702	AD1-098 E O1	5.78
934721	AD1-100 C	22.45
934722	AD1-100 E	104.76
934871	AD1-116 C	1.09
934872	AD1-116 E	1.78
934881	AD1-117 C	6.19
934882	AD1-117 E	4.13
934971	AD1-129 C	1.04
934972	AD1-129 E	0.69
935001	AD1-133 C O1	24.06
935002	AD1-133 E O1	16.04
936291	AD2-038 C O1	2.69
936292	AD2-038 E O1	18.02
936371	AD2-047 C O1	2.71
936372	AD2-047 E O1	29.15
936461	AD2-060	3.19
936511	AD2-066 C O1	9.67
936512	AD2-066 E O1	6.45
936781	AD2-101 C	5.9
936782	AD2-101 E	27.62
936791	AD2-102 C	13.85
936792	AD2-102 E	13.3
936961	AD2-130	0.66
937001	AD2-134 C	3.14
937002	AD2-134 E	12.98
937031	AD2-137 C O1	4.08
937032	AD2-137 E O1	19.09
937051	AD2-140 C O1	4.11
937052	AD2-140 E O1	19.25
937061	AD2-141 C O1	4.09
937062	AD2-141 E O1	19.27
937071	AD2-142 C O1	8.22
937072	AD2-142 E O1	38.5
937121	AD2-148 C O1	4.23
937122	AD2-148 E O1	19.82
937131	AD2-149 C O1	4.23

Bus #	Bus	MW Impact
937132	AD2-149 E O1	19.82
937141	AD2-150 C O1	4.23
937142	AD2-150 E O1	19.82
937181	AD2-155 C O1	4.23
937182	AD2-155 E O1	19.82
937311	AD2-172 C	2.83
937312	AD2-172 E	3.91
937321	AD2-175 C	19.73
937322	AD2-175 E	13.15
937331	AD2-176 C O1	8.43
937332	AD2-176 E O1	5.62
937401	AD2-194 1	8.95
937411	AD2-194 2	8.95
937531	AD2-214 C	5.1
937532	AD2-214 E	2.4
938012	AE1-002 E O1	8.18
938511	AE1-070 1	10.52
938521	AE1-070 2	9.62
938851	AE1-113 C O1	10.0
938852	AE1-113 E O1	31.44
938861	AE1-114 C O1	4.11
938862	AE1-114 E O1	15.72
939051	AE1-134 1	1.58
939061	AE1-134 2	1.58
939321	AE1-163 C O1	6.81
939322	AE1-163 E O1	41.82
939351	AE1-166 C O1	11.8
939352	AE1-166 E O1	10.89
939401	AE1-172 C O1	7.21
939402	AE1-172 E O1	33.74
939631	AE1-193 C O1	4.73
939632	AE1-193 E O1	31.63
939641	AE1-194 C	10.24
939642	AE1-194 E	68.55
939651	AE1-195 C	10.24
939652	AE1-195 E	68.55
939681	AE1-198 C O1	23.78
939682	AE1-198 E O1	20.2
939691	AE1-199	2.75
939701	AE1-201 C	2.31
939702	AE1-201 E	0.51
939732	AE1-204 E	0.34
939861	AE1-222 1	91.02
939871	AE1-222 2	93.81
939921	AE1-228 C O1	11.56
939922	AE1-228 E O1	7.71
939961	AE1-233 C O1	2.67
939962	AE1-233 E O1	11.05
940101	AE1-252 C O1	11.82
940102	AE1-252 E O1	7.88
951721	J643	25.73
952581	J740 C	4.3

Bus #	Bus	MW Impact
952582	J740 E	23.28
953871	J847	13.1
954751	J351	434.54
AB2-013	AB2-013	18.6
AE1-033	AE1-033	20.85
BLUEG	BLUEG	1.07
CARR	CARR	0.9
CATAWBA	CATAWBA	0.22
CBM-S1	CBM-S1	3.95
CBM-W1	CBM-W1	35.83
CBM-W2	CBM-W2	81.92
CIN	CIN	3.3
DEARBORN	DEARBORN	4.0
G-007	G-007	2.51
HAMLET	HAMLET	0.96
IPL	IPL	1.12
MEC	MEC	44.69
O-066	O-066	8.44
RENSSELAER	RENSSELAER	0.71
TRIMBLE	TRIMBLE	0.16
WEC	WEC	9.2
Z1-043	Z1-043	32.93

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823528	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	104.34	105.13	DC	138.1

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	32.17
274722	S-055 E	29.55
274772	LINCOLN ;3U	4.7
274773	LINCOLN ;4U	4.7
274774	LINCOLN ;5U	4.7
274775	LINCOLN ;6U	4.7
274776	LINCOLN ;7U	4.7
274777	LINCOLN ;8U	4.7
274832	U4-027	28.06
274859	EASYR;U1 E	29.13
274860	EASYR;U2 E	29.13
274888	PILOT HIL;1E	44.3
274890	CAYUG;1U E	36.07
274891	CAYUG;2U E	36.07
275149	KEMPTON ;1E	44.3
290021	O50 E	49.24
290051	GSG-6; E	28.08
290108	LEEDK;1U E	65.57
293061	N-015 E	41.22
293516	O-009 E1	23.79
293517	O-009 E2	12.09
293518	O-009 E3	13.31
293644	O22 E1	25.31
293645	O22 E2	49.12
293715	O-029 E	25.78
293716	O-029 E	14.13
293717	O-029 E	12.99
293771	O-035 E	16.49
294392	P-010 E	52.34
294763	P-046 E	24.88
295109	WESTBROOK E	15.03
295111	SUBLETTE E	6.87
296125	R-030 C3	9.31
296128	R-030 E3	37.24
296271	R-030 C2	9.2
296272	R-030 E2	36.8
296308	R-030 C1	9.2
296309	R-030 E1	36.8
910542	X3-005 E	1.57
914641	Y2-103	118.19

Bus #	Bus	MW Impact
915011	Y3-013 1	9.85
915021	Y3-013 2	9.85
915031	Y3-013 3	9.85
916211	Z1-072 E	12.48
916221	Z1-073 E	14.49
916502	Z1-106 E1	3.41
916504	Z1-106 E2	3.41
916512	Z1-107 E	6.53
916522	Z1-108 E	6.62
917502	Z2-087 E	48.13
918052	AA1-018 E	40.41
919221	AA1-146	46.5
919581	AA2-030	46.5
919621	AA2-039 C	3.78
919622	AA2-039 E	25.31
920272	AA2-123 E	6.51
924471	AB2-096	112.6
925161	AB2-173	8.29
925302	AB2-191 E	3.72
925581	AC1-033 C	3.62
925582	AC1-033 E	24.22
926311	AC1-109 1	5.21
926321	AC1-109 2	5.21
926331	AC1-110 1	5.12
926341	AC1-110 2	5.12
926351	AC1-111 1	2.07
926361	AC1-111 2	2.07
926371	AC1-111 3	2.07
926381	AC1-111 4	2.07
926391	AC1-111 5	2.07
926401	AC1-111 6	2.07
926431	AC1-114	6.32
926821	AC1-168 C O1	2.98
926822	AC1-168 E O1	20.01
927091	AC1-204 1	184.27
927101	AC1-204 2	184.31
927201	AC1-214 C O1	5.29
927202	AC1-214 E O1	16.83
927451	AC1-142A 1	10.61
927461	AC1-142A 2	10.61
927511	AC1-113 1	3.16
927521	AC1-113 2	3.16
927531	AC1-185 1	1.82
927541	AC1-185 2	1.82
927551	AC1-185 3	1.82
927561	AC1-185 4	1.82
927571	AC1-185 5	1.82
927581	AC1-185 6	1.82
927591	AC1-185 7	1.82
927601	AC1-185 8	1.82
930481	AB1-089	175.15
930501	AB1-091 O1	173.97

Bus #	Bus	MW Impact
930741	AB1-122 1O1	194.95
930751	AB1-122 2O1	188.67
932881	AC2-115 1	6.32
932891	AC2-115 2	6.32
932921	AC2-116	2.21
932931	AC2-117	14.95
933341	AC2-147 C	2.31
933342	AC2-147 E	3.77
933411	AC2-154 C	6.01
933412	AC2-154 E	9.81
933431	AC2-156 C O1	2.64
933432	AC2-156 E O1	4.3
933911	AD1-013 C	4.95
933912	AD1-013 E	7.9
933931	AD1-016 C	2.47
933932	AD1-016 E	4.03
934051	AD1-031 C O1	7.35
934052	AD1-031 E O1	11.99
934101	AD1-039 1	19.1
934111	AD1-039 2	18.49
934401	AD1-064 C O1	8.56
934402	AD1-064 E O1	40.08
934431	AD1-067 C	0.35
934432	AD1-067 E	1.48
934651	AD1-096 C	2.37
934652	AD1-096 E	3.86
934701	AD1-098 C O1	18.47
934702	AD1-098 E O1	13.48
934721	AD1-100 C	51.04
934722	AD1-100 E	238.17
934871	AD1-116 C	2.35
934872	AD1-116 E	3.84
934881	AD1-117 C	14.23
934882	AD1-117 E	9.49
934971	AD1-129 C	2.4
934972	AD1-129 E	1.6
935001	AD1-133 C O1	55.95
935002	AD1-133 E O1	37.3
936291	AD2-038 C O1	5.86
936292	AD2-038 E O1	39.2
936371	AD2-047 C O1	5.38
936372	AD2-047 E O1	57.91
936461	AD2-060	6.33
936511	AD2-066 C O1	21.47
936512	AD2-066 E O1	14.31
936781	AD2-101 C	10.68
936782	AD2-101 E	49.98
936791	AD2-102 C	31.89
936792	AD2-102 E	30.64
936961	AD2-130	1.4
937001	AD2-134 C	7.34
937002	AD2-134 E	30.33

Bus #	Bus	MW Impact
937031	AD2-137 C O1	10.26
937032	AD2-137 E O1	48.01
937051	AD2-140 C O1	10.5
937052	AD2-140 E O1	49.17
937061	AD2-141 C O1	10.44
937062	AD2-141 E O1	49.23
937071	AD2-142 C O1	21.0
937072	AD2-142 E O1	98.34
937121	AD2-148 C O1	8.35
937122	AD2-148 E O1	39.1
937131	AD2-149 C O1	8.35
937132	AD2-149 E O1	39.1
937141	AD2-150 C O1	8.35
937142	AD2-150 E O1	39.1
937181	AD2-155 C O1	8.35
937182	AD2-155 E O1	39.1
937311	AD2-172 C	6.53
937312	AD2-172 E	9.02
937321	AD2-175 C	38.91
937322	AD2-175 E	25.94
937331	AD2-176 C O1	19.52
937332	AD2-176 E O1	13.01
937401	AD2-194 1	19.82
937411	AD2-194 2	19.82
937531	AD2-214 C	11.6
937532	AD2-214 E	5.46
938012	AE1-002 E O1	20.59
938511	AE1-070 1	23.28
938521	AE1-070 2	21.31
938851	AE1-113 C O1	21.75
938852	AE1-113 E O1	68.37
938861	AE1-114 C O1	9.46
938862	AE1-114 E O1	36.16
939051	AE1-134 1	3.61
939061	AE1-134 2	3.61
939321	AE1-163 C O1	14.69
939322	AE1-163 E O1	90.24
939351	AE1-166 C O1	26.27
939352	AE1-166 E O1	24.25
939401	AE1-172 C O1	16.57
939402	AE1-172 E O1	77.57
939631	AE1-193 C O1	17.95
939632	AE1-193 E O1	120.14
939641	AE1-194 C	21.1
939642	AE1-194 E	141.24
939651	AE1-195 C	21.1
939652	AE1-195 E	141.24
939681	AE1-198 C O1	53.3
939682	AE1-198 E O1	45.3
939691	AE1-199	6.42
939701	AE1-201 C	5.34
939702	AE1-201 E	1.17

Bus #	Bus	MW Impact
939732	AE1-204 E	0.77
939741	AE1-205 C O1	23.29
939742	AE1-205 E O1	32.16
939861	AE1-222 1	215.29
939871	AE1-222 2	208.36
939921	AE1-228 C O1	27.02
939922	AE1-228 E O1	18.01
939961	AE1-233 C O1	6.29
939962	AE1-233 E O1	25.97
940101	AE1-252 C O1	27.05
940102	AE1-252 E O1	18.03
AB2-013	AB2-013	41.07
AE1-033	AE1-033	47.69
BLUEG	BLUEG	16.82
CALDERWOOD	CALDERWOOD	0.23
CANNELTON	CANNELTON	0.26
CARR	CARR	1.97
CATAWBA	CATAWBA	0.8
CBM-S1	CBM-S1	3.44
CBM-W1	CBM-W1	76.96
CBM-W2	CBM-W2	140.68
CHEOAH	CHEOAH	0.24
CHILHOWEE	CHILHOWEE	0.07
DEARBORN	DEARBORN	6.43
ELMERSMITH	ELMERSMITH	0.27
G-007	G-007	5.53
GIBSON	GIBSON	0.08
HAMLET	HAMLET	3.02
MEC	MEC	98.2
O-066	O-066	18.61
RENSSELAER	RENSSELAER	1.56
SANTEETLA	SANTEETLA	0.08
TRIMBLE	TRIMBLE	1.99
WEC	WEC	20.94
Z1-043	Z1-043	73.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822312	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	111.8	112.0	DC	55.62

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	12.84
274654	BRAIDWOOD;1U	27.44
274655	BRAIDWOOD;2U	26.25
274660	LASCO STA;1U	25.18
274661	LASCO STA;2U	25.23
274675	JOLIET 29;7U	11.31
274676	JOLIET 29;8U	11.32
274687	WILL CNTY;4U	11.43
274704	KENDALL ;1C	4.03
274705	KENDALL ;1S	2.68
274706	KENDALL ;2C	4.03
274707	KENDALL ;2S	2.68
274722	S-055 E	12.01
274736	ELWOOD EC;9P	3.24
274832	U4-027	11.27
274859	EASYR;U1 E	11.62
274860	EASYR;U2 E	11.62
274861	TOP CROP ;1U	0.48
274862	TOP CROP ;2U	0.92
274888	PILOT HIL;1E	17.21
274890	CAYUG;1U E	13.66
274891	CAYUG;2U E	13.66
275149	KEMPTON ;1E	17.21
290021	O50 E	20.89
290051	GSG-6; E	11.05
290108	LEEDK;1U E	25.7
293061	N-015 E	16.59
293516	O-009 E1	9.52
293517	O-009 E2	4.83
293518	O-009 E3	5.32
293644	O22 E1	12.39
293645	O22 E2	24.06
293715	O-029 E	10.29
293716	O-029 E	5.64
293717	O-029 E	5.19
293771	O-035 E	6.65
294392	P-010 E	21.07
294763	P-046 E	9.92
295109	WESTBROOK E	5.92
295111	SUBLETTE E	2.73

Bus #	Bus	MW Impact
914641	Y2-103	48.03
915011	Y3-013 1	4.0
915021	Y3-013 2	4.0
915031	Y3-013 3	4.0
916211	Z1-072 E	5.03
916221	Z1-073 E	5.7
916502	Z1-106 E1	1.34
916504	Z1-106 E2	1.34
916512	Z1-107 E	2.57
916522	Z1-108 E	2.65
918052	AA1-018 E	16.27
919221	AA1-146	18.55
919581	AA2-030	18.55
920272	AA2-123 E	2.6
924471	AB2-096	44.95
925161	AB2-173	3.31
925302	AB2-191 E	1.46
925581	AC1-033 C	1.46
925582	AC1-033 E	9.76
926311	AC1-109 1	2.02
926321	AC1-109 2	2.02
926331	AC1-110 1	2.02
926341	AC1-110 2	2.02
926351	AC1-111 1	0.81
926361	AC1-111 2	0.81
926371	AC1-111 3	0.81
926381	AC1-111 4	0.81
926391	AC1-111 5	0.81
926401	AC1-111 6	0.81
926431	AC1-114	2.52
926821	AC1-168 C O1	1.2
926822	AC1-168 E O1	8.08
927091	AC1-204 1	78.67
927101	AC1-204 2	78.54
927201	AC1-214 C O1	2.13
927202	AC1-214 E O1	6.78
927451	AC1-142A 1	4.56
927461	AC1-142A 2	4.56
927511	AC1-113 1	1.26
927521	AC1-113 2	1.26
927531	AC1-185 1	0.73
927541	AC1-185 2	0.73
927551	AC1-185 3	0.73
927561	AC1-185 4	0.73
927571	AC1-185 5	0.73
927581	AC1-185 6	0.73
927591	AC1-185 7	0.73
927601	AC1-185 8	0.73
930481	AB1-089	69.71
930501	AB1-091 O1	67.82
930741	AB1-122 1O1	74.89
930751	AB1-122 2O1	80.34

Bus #	Bus	MW Impact
932881	AC2-115 1	2.52
932891	AC2-115 2	2.52
932921	AC2-116	0.88
933341	AC2-147 C	0.92
933342	AC2-147 E	1.5
933411	AC2-154 C	2.34
933412	AC2-154 E	3.81
933431	AC2-156 C O1	1.01
933432	AC2-156 E O1	1.65
933911	AD1-013 C	1.95
933912	AD1-013 E	3.11
933931	AD1-016 C	0.99
933932	AD1-016 E	1.61
934101	AD1-039 1	7.34
934111	AD1-039 2	7.87
934401	AD1-064 C O1	3.4
934402	AD1-064 E O1	15.92
934431	AD1-067 C	0.14
934432	AD1-067 E	0.58
934651	AD1-096 C	0.94
934652	AD1-096 E	1.54
934701	AD1-098 C O1	7.27
934702	AD1-098 E O1	5.31
934721	AD1-100 C	20.03
934722	AD1-100 E	93.46
934871	AD1-116 C	0.95
934872	AD1-116 E	1.55
934881	AD1-117 C	5.67
934882	AD1-117 E	3.78
934971	AD1-129 C	0.96
934972	AD1-129 E	0.64
935001	AD1-133 C O1	21.37
935002	AD1-133 E O1	14.25
936291	AD2-038 C O1	2.42
936292	AD2-038 E O1	16.17
936371	AD2-047 C O1	2.09
936372	AD2-047 E O1	22.5
936461	AD2-060	2.46
936511	AD2-066 C O1	8.77
936512	AD2-066 E O1	5.84
936781	AD2-101 C	3.99
936782	AD2-101 E	18.7
936791	AD2-102 C	12.74
936792	AD2-102 E	12.24
936961	AD2-130	0.6
937001	AD2-134 C	2.89
937002	AD2-134 E	11.93
937031	AD2-137 C O1	3.33
937032	AD2-137 E O1	15.61
937051	AD2-140 C O1	3.32
937052	AD2-140 E O1	15.53
937061	AD2-141 C O1	3.3

Bus #	Bus	MW Impact
937062	AD2-141 E O1	15.55
937071	AD2-142 C O1	6.63
937072	AD2-142 E O1	31.05
937121	AD2-148 C O1	3.26
937122	AD2-148 E O1	15.25
937131	AD2-149 C O1	3.26
937132	AD2-149 E O1	15.25
937141	AD2-150 C O1	3.26
937142	AD2-150 E O1	15.25
937181	AD2-155 C O1	3.26
937182	AD2-155 E O1	15.25
937311	AD2-172 C	2.6
937312	AD2-172 E	3.6
937321	AD2-175 C	15.17
937322	AD2-175 E	10.11
937331	AD2-176 C O1	7.79
937332	AD2-176 E O1	5.19
937401	AD2-194 1	8.46
937411	AD2-194 2	8.45
937531	AD2-214 C	4.64
937532	AD2-214 E	2.18
938012	AE1-002 E O1	6.69
938511	AE1-070 1	9.94
938521	AE1-070 2	9.08
938851	AE1-113 C O1	8.97
938852	AE1-113 E O1	28.19
938861	AE1-114 C O1	3.77
938862	AE1-114 E O1	14.41
939051	AE1-134 1	1.44
939061	AE1-134 2	1.44
939321	AE1-163 C O1	6.67
939322	AE1-163 E O1	40.99
939351	AE1-166 C O1	10.72
939352	AE1-166 E O1	9.9
939401	AE1-172 C O1	6.26
939402	AE1-172 E O1	29.33
939631	AE1-193 C O1	1.04
939632	AE1-193 E O1	6.93
939681	AE1-198 C O1	21.47
939682	AE1-198 E O1	18.24
939691	AE1-199	2.53
939701	AE1-201 C	2.13
939702	AE1-201 E	0.47
939732	AE1-204 E	0.31
939861	AE1-222 1	82.7
939871	AE1-222 2	88.73
939921	AE1-228 C O1	10.63
939922	AE1-228 E O1	7.08
939961	AE1-233 C O1	2.46
939962	AE1-233 E O1	10.18
940101	AE1-252 C O1	10.24
940102	AE1-252 E O1	6.83

Bus #	Bus	MW Impact
AB2-013	AB2-013	16.9
AE1-033	AE1-033	19.14
BLUEG	BLUEG	6.67
CALDERWOOD	CALDERWOOD	0.07
CANNELTON	CANNELTON	0.13
CARR	CARR	0.74
CATAWBA	CATAWBA	0.28
CBM-S1	CBM-S1	1.38
CBM-W1	CBM-W1	26.95
CBM-W2	CBM-W2	54.02
CHEOAH	CHEOAH	0.07
CHILHOWEE	CHILHOWEE	0.02
DEARBORN	DEARBORN	2.92
ELMERSMITH	ELMERSMITH	0.15
G-007	G-007	2.07
GIBSON	GIBSON	0.08
HAMLET	HAMLET	1.08
MEC	MEC	39.3
O-066	O-066	6.96
RENSSELAER	RENSSELAER	0.58
SANTEETLA	SANTEETLA	0.02
TRIMBLE	TRIMBLE	0.78
WEC	WEC	8.49
Z1-043	Z1-043	29.83

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822213	270770	GOODINGS ;4B	CE	270766	GOODINGS ;3B	CE	1	COMED_P4_116-45-L11614_	breaker	1802.0	123.81	124.85	DC	41.26

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	7.96
274722	S-055 E	7.38
274728	ELWOOD EC;5P	4.75
274730	ELWOOD EC;6P	4.75
274732	ELWOOD EC;7P	4.75
274734	ELWOOD EC;8P	4.75
274735	ELWOOD EC;4P	4.72
274736	ELWOOD EC;9P	4.75
274832	U4-027	8.21
274859	EASYR;U1 E	7.73
274860	EASYR;U2 E	7.73
274861	TOP CROP ;1U	0.95
274862	TOP CROP ;2U	1.84
290021	O50 E	25.65
290051	GSG-6; E	6.67
293516	O-009 E1	6.67
293517	O-009 E2	3.39
293518	O-009 E3	3.73
293644	O22 E1	24.77
293645	O22 E2	48.08
293715	O-029 E	7.07
293716	O-029 E	3.88
293717	O-029 E	3.56
293771	O-035 E	4.74
294401	BSHIL;1U E	6.6
294410	BSHIL;2U E	6.6
294763	P-046 E	6.37
295109	WESTBROOK E	3.57
295111	SUBLETTE E	1.82
914641	Y2-103	29.53
915011	Y3-013 1	2.46
915021	Y3-013 2	2.46
915031	Y3-013 3	2.46
916211	Z1-072 E	3.58
916221	Z1-073 E	3.44
916502	Z1-106 E1	0.78
916504	Z1-106 E2	0.78
916522	Z1-108 E	1.6
918052	AA1-018 E	19.58
919221	AA1-146	12.7
919581	AA2-030	12.7

Bus #	Bus	MW Impact
919621	AA2-039 C	1.61
919622	AA2-039 E	10.77
920272	AA2-123 E	1.59
924471	AB2-096	27.85
925161	AB2-173	2.27
925302	AB2-191 E	0.88
925581	AC1-033 C	1.08
925582	AC1-033 E	7.24
926331	AC1-110 1	1.2
926341	AC1-110 2	1.2
926431	AC1-114	1.59
926841	AC1-171 C O1	0.79
926842	AC1-171 E O1	5.24
927091	AC1-204 1	115.11
927101	AC1-204 2	114.46
927201	AC1-214 C O1	1.52
927202	AC1-214 E O1	4.83
927451	AC1-142A 1	3.64
927461	AC1-142A 2	3.67
927511	AC1-113 1	0.79
927521	AC1-113 2	0.79
927531	AC1-185 1	0.48
927541	AC1-185 2	0.48
927551	AC1-185 3	0.48
927561	AC1-185 4	0.48
927571	AC1-185 5	0.48
927581	AC1-185 6	0.48
927591	AC1-185 7	0.48
927601	AC1-185 8	0.48
930481	AB1-089	43.91
930741	AB1-122 1O1	65.29
930751	AB1-122 2O1	95.35
932881	AC2-115 1	1.59
932891	AC2-115 2	1.59
932921	AC2-116	0.56
933341	AC2-147 C	0.61
933342	AC2-147 E	0.99
933911	AD1-013 C	1.17
933912	AD1-013 E	1.87
933931	AD1-016 C	0.61
933932	AD1-016 E	0.99
934051	AD1-031 C O1	2.2
934052	AD1-031 E O1	3.58
934101	AD1-039 1	6.4
934111	AD1-039 2	9.34
934401	AD1-064 C O1	2.11
934402	AD1-064 E O1	9.87
934431	AD1-067 C	0.08
934432	AD1-067 E	0.35
934651	AD1-096 C	0.6
934652	AD1-096 E	0.99
934701	AD1-098 C O1	4.41

Bus #	Bus	MW Impact
934702	AD1-098 E O1	3.22
934871	AD1-116 C	1.14
934872	AD1-116 E	1.86
934881	AD1-117 C	3.74
934882	AD1-117 E	2.49
934971	AD1-129 C	0.6
934972	AD1-129 E	0.4
935001	AD1-133 C O1	14.7
935002	AD1-133 E O1	9.8
936291	AD2-038 C O1	2.98
936292	AD2-038 E O1	19.92
936511	AD2-066 C O1	6.45
936512	AD2-066 E O1	4.3
936791	AD2-102 C	8.1
936792	AD2-102 E	7.78
937001	AD2-134 C	1.74
937002	AD2-134 E	7.2
937311	AD2-172 C	1.67
937312	AD2-172 E	2.31
937331	AD2-176 C O1	4.78
937332	AD2-176 E O1	3.18
937401	AD2-194 1	12.38
937411	AD2-194 2	12.31
937531	AD2-214 C	3.27
937532	AD2-214 E	1.54
938511	AE1-070 1	14.54
938521	AE1-070 2	13.23
938851	AE1-113 C O1	11.05
938852	AE1-113 E O1	34.75
938861	AE1-114 C O1	2.49
938862	AE1-114 E O1	9.5
939051	AE1-134 1	0.99
939061	AE1-134 2	0.99
939321	AE1-163 C O1	10.91
939322	AE1-163 E O1	67.01
939631	AE1-193 C O1	5.36
939632	AE1-193 E O1	35.9
939681	AE1-198 C O1	15.93
939682	AE1-198 E O1	13.53
939691	AE1-199	1.52
939701	AE1-201 C	1.31
939702	AE1-201 E	0.29
939732	AE1-204 E	0.19
939861	AE1-222 1	72.1
939871	AE1-222 2	105.3
939921	AE1-228 C O1	6.37
939922	AE1-228 E O1	4.25
990901	L-005 E	9.75
AB2-013	AB2-013	17.74
AE1-033	AE1-033	12.31
BLUEG	BLUEG	2.87
CANNELTON	CANNELTON	0.0

Bus #	Bus	MW Impact
CARR	CARR	0.36
CATAWBA	CATAWBA	0.06
CBM-S1	CBM-S1	2.13
CBM-W1	CBM-W1	18.07
CBM-W2	CBM-W2	45.91
DEARBORN	DEARBORN	1.82
G-007	G-007	0.99
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.28
MEC	MEC	29.52
O-066	O-066	3.34
RENSSELAER	RENSSELAER	0.28
TRIMBLE	TRIMBLE	0.35
WEC	WEC	5.37
Z1-043	Z1-043	19.7

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822156	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	134.48	136.16	DC	60.57

Bus #	Bus	MW Impact
274662	QUAD CITI;1U	35.3
274663	QUAD CITI;2U	36.21
274699	CORDOVA ;1C	6.18
274700	CORDOVA ;2C	6.18
274701	CORDOVA ;1S	6.96
274715	NELSON EC;1C	6.74
274716	NELSON EC;1S	9.31
274717	NELSON EC;2C	6.74
274718	NELSON EC;2S	9.31
274832	U4-027	15.61
290051	GSG-6; E	8.32
293513	O-009 C1	0.76
293514	O-009 C2	0.39
293515	O-009 C3	0.43
293516	O-009 E1	19.89
293517	O-009 E2	10.1
293518	O-009 E3	11.13
293712	O-029 C	0.89
293713	O-029 C	0.48
293714	O-029 C	0.45
293715	O-029 E	23.12
293716	O-029 E	12.68
293717	O-029 E	11.65
293771	O-035 E	5.91
294401	BSHIL;1U E	9.69
294410	BSHIL;2U E	9.69
294763	P-046 E	5.6
295109	WESTBROOK E	4.46
295110	SUBLETTE C	0.12
295111	SUBLETTE E	5.2
905471	W4-084	0.13
916211	Z1-072 E	4.47
916221	Z1-073 E	4.3
919221	AA1-146	54.78
919581	AA2-030	54.78
919621	AA2-039 C	2.36
919622	AA2-039 E	15.8
925161	AB2-173	9.77
925302	AB2-191 E	1.1
925581	AC1-033 C	1.59
925582	AC1-033 E	10.62

Bus #	Bus	MW Impact
926841	AC1-171 C O1	0.77
926842	AC1-171 E O1	5.14
927201	AC1-214 C O1	1.9
927202	AC1-214 E O1	6.03
933341	AC2-147 C	1.33
933342	AC2-147 E	2.18
933911	AD1-013 C	1.4
933912	AD1-013 E	2.24
934051	AD1-031 C O1	3.22
934052	AD1-031 E O1	5.26
934431	AD1-067 C	0.1
934432	AD1-067 E	0.44
934651	AD1-096 C	0.65
934652	AD1-096 E	1.05
934701	AD1-098 C O1	5.92
934702	AD1-098 E O1	4.32
934881	AD1-117 C	8.21
934882	AD1-117 E	5.48
937001	AD2-134 C	2.18
937002	AD2-134 E	8.99
937311	AD2-172 C	1.47
937312	AD2-172 E	2.03
937531	AD2-214 C	10.2
937532	AD2-214 E	4.8
938861	AE1-114 C O1	5.46
938862	AE1-114 E O1	20.87
939051	AE1-134 1	4.26
939061	AE1-134 2	4.26
939631	AE1-193 C O1	7.87
939632	AE1-193 E O1	52.7
939681	AE1-198 C O1	23.38
939682	AE1-198 E O1	19.87
939691	AE1-199	1.82
939921	AE1-228 C O1	7.34
939922	AE1-228 E O1	4.9
950181	J407 C	3.1
950182	J407 E	12.38
950211	J411 C	4.17
950212	J411 E	16.68
950221	J416 C	3.95
950222	J416 E	15.8
950401	J041 C	1.68
950402	J041 E	6.72
950471	J438 C	3.45
950472	J438 E	13.85
950491	J443 C	0.98
950492	J443 E	3.91
950501	J449 C	3.29
950502	J449 E	13.15
950522	J455 E	22.35
950541	G798 C	2.65
950542	G798 E	10.6

Bus #	Bus	MW Impact
950571	G870 C	2.88
950572	G870 E	11.51
950581	G947 C	1.79
950582	G947 E	7.14
950591	H008 C	0.73
950592	H008 E	2.93
950601	H009 C	2.88
950602	H009 E	11.53
950611	H021 C	2.59
950612	H021 E	10.34
950631	H096 C	0.77
950632	H096 E	3.06
950641	J026 C	0.75
950642	J026 E	2.99
950661	J097 C	3.88
950662	J097 E	15.5
950721	R420 C	3.71
950722	R420 E	14.86
950731	R490 C	0.18
950732	R490 E	0.71
950821	J274 C	1.46
950822	J274 E	5.84
950911	J289 C	0.29
950912	J289 E	0.88
950961	J329	4.75
951031	J344 C	3.12
951032	J344 E	9.36
951221	J475 C	3.81
951222	J475 E	15.25
951301	J495 C	3.62
951302	J495 E	10.86
951331	J498 C	5.12
951332	J498 E	20.48
951341	J499 C	5.0
951342	J499 E	20.01
951351	J500 C	6.94
951352	J500 E	27.77
951381	J504	5.89
951421	J514	3.52
951441	J523 C	2.25
951442	J523 E	1.5
951451	J524 C	4.63
951452	J524 E	3.09
951501	J529 C	3.56
951502	J529 E	14.26
951511	J530 C	5.62
951512	J530 E	22.48
951541	J534 C	3.71
951542	J534 E	14.82
951551	J535 C	3.12
951552	J535 E	12.48
951821	J541 C	4.58

Bus #	Bus	MW Impact
951822	J541 E	24.78
951841	J555 C	2.08
951842	J555 E	11.26
952021	J614 C	0.76
952022	J614 E	4.13
952191	J583 C	2.21
952192	J583 E	11.96
952211	J590 C	1.05
952212	J590 E	5.66
952231	J598 C	3.44
952232	J598 E	18.59
952441	J776 C	1.68
952442	J776 E	9.1
952451	J777 C	1.41
952452	J777 E	7.61
952461	J522	1.49
952491	J761 C	2.34
952492	J761 E	12.68
952561	J731 C	2.31
952562	J731 E	12.51
952571	J733 C	2.74
952572	J733 E	14.8
952671	J767 C	0.15
952672	J767 E	0.84
952681	J768 C	0.17
952682	J768 E	0.89
953001	J785 C	1.14
953002	J785 E	6.18
953011	J885 C	0.77
953012	J885 E	4.18
953082	J836 E	15.02
953231	J447 C	2.0
953232	J447 E	10.84
953391	J810	9.76
953821	J840 C	1.67
953822	J840 E	9.03
954091	J873 C	3.36
954092	J873 E	18.19
954121	J876 C	2.26
954122	J876 E	12.24
954131	J877	18.63
954201	J887 C	1.04
954202	J887 E	5.6
954301	J898 C	1.15
954302	J898 E	6.2
954521	J927 C	1.15
954522	J927 E	6.24
954702	J844 E	29.56
990901	L-005 E	13.36
AB2-013	AB2-013	7.86
CARR	CARR	0.06
CBM-S1	CBM-S1	5.15

Bus #	Bus	MW Impact
CBM-S2	CBM-S2	1.19
CBM-W1	CBM-W1	20.85
CBM-W2	CBM-W2	65.48
CIN	CIN	0.73
CPLE	CPLE	0.35
DEARBORN	DEARBORN	0.8
G-007	G-007	0.15
IPL	IPL	0.3
LGEE	LGEE	0.1
MEC	MEC	53.98
O-066	O-066	0.52
RENSSELAER	RENSSELAER	0.05
Z1-043	Z1-043	17.62

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822032	271018	ANNAWAN; R	CE	272110	NORMANDY ; B	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	109.97	144.26	DC	94.3

Bus #	Bus	MW Impact
274832	U4-027	35.97
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.59
293514	O-009 C2	0.3
293515	O-009 C3	0.33
293516	O-009 E1	15.46
293517	O-009 E2	7.85
293518	O-009 E3	8.65
293771	O-035 E	9.4
294401	BSHIL;1U E	15.11
294410	BSHIL;2U E	15.11
916211	Z1-072 E	7.11
919621	AA2-039 C	3.68
919622	AA2-039 E	24.64
925581	AC1-033 C	2.48
925582	AC1-033 E	16.6
926821	AC1-168 C O1	0.99
926822	AC1-168 E O1	6.62
926841	AC1-171 C O1	0.91
926842	AC1-171 E O1	6.06
927201	AC1-214 C O1	3.02
927202	AC1-214 E O1	9.59
934051	AD1-031 C O1	5.02
934052	AD1-031 E O1	8.19
939631	AE1-193 C O1	12.26
939632	AE1-193 E O1	82.04
939681	AE1-198 C O1	36.4
939682	AE1-198 E O1	30.93
953201	J715 C	1.57
953202	J715 E	8.5
954201	J887 C	2.25
954202	J887 E	12.16
990901	L-005 E	20.1
AB2-013	AB2-013	4.89
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.01
BIG_CAJUN2	BIG_CAJUN2	0.03

Bus #	Bus	MW Impact
CBM-N	CBM-N	0.08
CBM-S1	CBM-S1	0.27
CBM-S2	CBM-S2	0.15
CBM-W2	CBM-W2	4.55
CIN	CIN	0.57
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	0.24
IPL	IPL	0.33
LGEE	LGEE	0.1
MECS	MECS	0.28
NYISO	NYISO	0.34
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.66
Z1-043	Z1-043	28.03

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823306	271241	CRESCENT ; R	CE	272189	OGLESBY ; T	CE	1	COMED_P7_138-L93008_R-R_+_138-L18706_R-R	tower	185.0	114.32	145.46	DC	57.6

Bus #	Bus	MW Impact
274832	U4-027	11.65
274848	CAMPGROVE;RU	0.47
274849	CRESCENT ;1U	0.55
274851	PROVIDENC;RU	0.84
274877	BISHOP HL;1U	0.35
274878	BISHOP HL;2U	0.35
293771	O-035 E	21.85
294401	BSHIL;1U E	9.24
294410	BSHIL;2U E	9.24
916211	Z1-072 E	16.53
919621	AA2-039 C	2.25
919622	AA2-039 E	15.08
925581	AC1-033 C	1.52
925582	AC1-033 E	10.18
927201	AC1-214 C O1	7.01
927202	AC1-214 E O1	22.29
934051	AD1-031 C O1	3.06
934052	AD1-031 E O1	5.0
939631	AE1-193 C O1	7.49
939632	AE1-193 E O1	50.12
939681	AE1-198 C O1	22.24
939682	AE1-198 E O1	18.89
954201	J887 C	1.33
954202	J887 E	7.22
990901	L-005 E	12.19
CARR	CARR	0.0
CBM-S1	CBM-S1	0.24
CBM-S2	CBM-S2	0.06
CBM-W1	CBM-W1	0.87
CBM-W2	CBM-W2	3.18
CIN	CIN	0.02
CPLE	CPLE	0.02
DEARBORN	DEARBORN	0.04
G-007	G-007	0.01
IPL	IPL	0.01
LGEE	LGEE	0.0
MEC	MEC	2.13
O-066	O-066	0.03
RENSSELAER	RENSSELAER	0.0
TILTON	TILTON	0.02

Bus #	Bus	MW Impact
TRIMBLE	TRIMBLE	0.0
WEC	WEC	0.02

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821891	271835	KEWANEE ;23	CE	348962	4KEEMIN	AMIL	1	COMED_P4_074-38-L7413__	breaker	214.0	124.31	196.26	DC	153.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293771	O-035 E	4.15
294401	BSHIL;1U E	24.62
294410	BSHIL;2U E	24.62
916211	Z1-072 E	3.14
919621	AA2-039 C	6.0
919622	AA2-039 E	40.16
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.57
926841	AC1-171 C O1	1.39
926842	AC1-171 E O1	9.25
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.24
934051	AD1-031 C O1	8.19
934052	AD1-031 E O1	13.36
939631	AE1-193 C O1	20.01
939632	AE1-193 E O1	133.95
939681	AE1-198 C O1	59.43
939682	AE1-198 E O1	50.5
953201	J715 C	1.14
953202	J715 E	6.16
954201	J887 C	0.59
954202	J887 E	3.19
990901	L-005 E	32.55
BAYOU	BAYOU	0.02
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.26
CBM-S2	CBM-S2	0.14
CBM-W2	CBM-W2	4.06
CIN	CIN	0.54
COTTONWOOD	COTTONWOOD	0.09
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.21
G-007A	G-007A	0.22
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.23
NYISO	NYISO	0.3
O-066A	O-066A	0.1

Bus #	Bus	MW Impact
TATANKA	TATANKA	0.58
UNIONPOWER	UNIONPOWER	0.0
VFT	VFT	0.59
Z1-043	Z1-043	22.77

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821961	271836	KEWANEE ;11	CE	271018	ANNAWAN; R	CE	1	COMED_P4_133-38-BT1-2__	breaker	229.0	116.35	157.53	DC	94.3

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.59
293514	O-009 C2	0.3
293515	O-009 C3	0.33
293516	O-009 E1	15.46
293517	O-009 E2	7.85
293518	O-009 E3	8.65
293771	O-035 E	9.4
294401	BSHIL;1U E	15.11
294410	BSHIL;2U E	15.11
916211	Z1-072 E	7.11
919621	AA2-039 C	3.68
919622	AA2-039 E	24.64
925581	AC1-033 C	2.48
925582	AC1-033 E	16.6
926821	AC1-168 C O1	0.99
926822	AC1-168 E O1	6.62
926841	AC1-171 C O1	0.91
926842	AC1-171 E O1	6.06
927201	AC1-214 C O1	3.02
927202	AC1-214 E O1	9.59
934051	AD1-031 C O1	5.02
934052	AD1-031 E O1	8.19
939631	AE1-193 C O1	12.26
939632	AE1-193 E O1	82.04
939681	AE1-198 C O1	36.4
939682	AE1-198 E O1	30.93
953201	J715 C	1.57
953202	J715 E	8.5
954201	J887 C	2.25
954202	J887 E	12.16
990901	L-005 E	20.1
AB2-013	AB2-013	4.89
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.01
BIG_CAJUN2	BIG_CAJUN2	0.03
CBM-N	CBM-N	0.08

Bus #	Bus	MW Impact
CBM-S1	CBM-S1	0.27
CBM-S2	CBM-S2	0.15
CBM-W2	CBM-W2	4.55
CIN	CIN	0.57
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	0.24
IPL	IPL	0.33
LGEE	LGEE	0.1
MECS	MECS	0.28
NYISO	NYISO	0.34
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.66
Z1-043	Z1-043	28.03

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821906	271837	KEWANEE ;12	CE	271836	KEWANEE ;11	CE	1	COMED_P4_133-38-BT1-2__	breaker	256.0	125.08	180.26	DC	141.27

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.15
274877	BISHOP HL;1U	0.87
274878	BISHOP HL;2U	0.87
293513	O-009 C1	0.89
293514	O-009 C2	0.45
293515	O-009 C3	0.5
293516	O-009 E1	23.17
293517	O-009 E2	11.77
293518	O-009 E3	12.96
294401	BSHIL;1U E	22.64
294410	BSHIL;2U E	22.64
919621	AA2-039 C	5.52
919622	AA2-039 E	36.94
925581	AC1-033 C	3.72
925582	AC1-033 E	24.91
926841	AC1-171 C O1	1.32
926842	AC1-171 E O1	8.81
934051	AD1-031 C O1	7.52
934052	AD1-031 E O1	12.26
939631	AE1-193 C O1	18.36
939632	AE1-193 E O1	122.9
939681	AE1-198 C O1	54.53
939682	AE1-198 E O1	46.33
954201	J887 C	3.33
954202	J887 E	18.0
990901	L-005 E	30.02
AB2-013	AB2-013	6.15
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.52
CBM-S2	CBM-S2	0.2
CBM-W2	CBM-W2	7.47
CIN	CIN	0.55
CPLE	CPLE	0.08
FARMERCITY	FARMERCITY	0.08
G-007A	G-007A	0.23
IPL	IPL	0.32
LGEE	LGEE	0.1
MECS	MECS	0.11
NYISO	NYISO	0.31
O-066A	O-066A	0.11
TATANKA	TATANKA	0.4

Bus #	Bus	MW Impact
VFT	VFT	0.61
Z1-043	Z1-043	13.07

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821887	271845	KEWANEE ;21	CE	271838	KEWANEE ;13	CE	1	COMED_P4_133-38-BT1-2__	breaker	498.0	123.77	196.09	DC	360.18

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	2.91
274877	BISHOP HL;1U	2.21
274878	BISHOP HL;2U	2.21
293513	O-009 C1	2.26
293514	O-009 C2	1.15
293515	O-009 C3	1.27
293516	O-009 E1	59.09
293517	O-009 E2	30.01
293518	O-009 E3	33.05
294401	BSHIL;1U E	57.74
294410	BSHIL;2U E	57.74
919621	AA2-039 C	14.07
919622	AA2-039 E	94.19
926841	AC1-171 C O1	3.11
926842	AC1-171 E O1	20.77
934051	AD1-031 C O1	19.16
934052	AD1-031 E O1	31.26
939631	AE1-193 C O1	46.82
939632	AE1-193 E O1	313.36
939681	AE1-198 C O1	139.03
939682	AE1-198 E O1	118.14
990901	L-005 E	75.92
BAYOU	BAYOU	0.08
BIG_CAJUN1	BIG_CAJUN1	0.09
BIG_CAJUN2	BIG_CAJUN2	0.18
CBM-N	CBM-N	0.04
CBM-S1	CBM-S1	0.15
CBM-S2	CBM-S2	0.08
CBM-W2	CBM-W2	3.07
CHOCTAW	CHOCTAW	0.02
CIN	CIN	0.58
COTTONWOOD	COTTONWOOD	0.34
CPLE	CPLE	0.03
FARMERCITY	FARMERCITY	0.27
G-007A	G-007A	0.14
IPL	IPL	0.32
LGEE	LGEE	0.09
MECS	MECS	0.06
NYISO	NYISO	0.19
O-066A	O-066A	0.07
TATANKA	TATANKA	0.67

Bus #	Bus	MW Impact
UNIONPOWER	UNIONPOWER	0.04
VFT	VFT	0.37
Z1-043	Z1-043	16.91

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822039	272110	NORMANDY ; B	CE	293710	O29	CE	1	COMED_P4_133-38-BT1-2__	breaker	275.0	107.68	141.97	DC	94.3

Bus #	Bus	MW Impact
274832	U4-027	35.97
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.59
293514	O-009 C2	0.3
293515	O-009 C3	0.33
293516	O-009 E1	15.46
293517	O-009 E2	7.85
293518	O-009 E3	8.65
293771	O-035 E	9.4
294401	BSHIL;1U E	15.11
294410	BSHIL;2U E	15.11
916211	Z1-072 E	7.11
919621	AA2-039 C	3.68
919622	AA2-039 E	24.64
925581	AC1-033 C	2.48
925582	AC1-033 E	16.6
926821	AC1-168 C O1	0.99
926822	AC1-168 E O1	6.62
926841	AC1-171 C O1	0.91
926842	AC1-171 E O1	6.06
927201	AC1-214 C O1	3.02
927202	AC1-214 E O1	9.59
934051	AD1-031 C O1	5.02
934052	AD1-031 E O1	8.19
939631	AE1-193 C O1	12.26
939632	AE1-193 E O1	82.04
939681	AE1-198 C O1	36.4
939682	AE1-198 E O1	30.93
953201	J715 C	1.57
953202	J715 E	8.5
954201	J887 C	2.25
954202	J887 E	12.16
990901	L-005 E	20.1
AB2-013	AB2-013	4.89
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.01
BIG_CAJUN2	BIG_CAJUN2	0.03

Bus #	Bus	MW Impact
CBM-N	CBM-N	0.08
CBM-S1	CBM-S1	0.27
CBM-S2	CBM-S2	0.15
CBM-W2	CBM-W2	4.55
CIN	CIN	0.57
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.25
G-007A	G-007A	0.24
IPL	IPL	0.33
LGEE	LGEE	0.1
MECS	MECS	0.28
NYISO	NYISO	0.34
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.66
Z1-043	Z1-043	28.03

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823399	272189	OGLESBY ; T	CE	348935	4OGLESBY MN	AMIL	1	COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	tower	202.0	120.29	128.1	DC	34.99

Bus #	Bus	MW Impact
274832	U4-027	5.77
274849	CRESCENT ;1U	0.48
274851	PROVIDENC;RU	0.73
293771	O-035 E	19.05
294401	BSHIL;1U E	5.63
294410	BSHIL;2U E	5.63
916211	Z1-072 E	14.42
919621	AA2-039 C	1.37
919622	AA2-039 E	9.18
925581	AC1-033 C	0.93
925582	AC1-033 E	6.22
927201	AC1-214 C O1	6.12
927202	AC1-214 E O1	19.44
934051	AD1-031 C O1	1.86
934052	AD1-031 E O1	3.04
936511	AD2-066 C O1	57.02
936512	AD2-066 E O1	38.02
939631	AE1-193 C O1	4.55
939632	AE1-193 E O1	30.44
939681	AE1-198 C O1	13.51
939682	AE1-198 E O1	11.48
954201	J887 C	0.81
954202	J887 E	4.36
990901	L-005 E	7.35
BLUEG	BLUEG	0.21
CANNELTON	CANNELTON	0.01
CARR	CARR	0.01
CATAWBA	CATAWBA	0.0
CBM-S1	CBM-S1	0.07
CBM-W1	CBM-W1	1.35
CBM-W2	CBM-W2	0.57
COFFEEN	COFFEEN	0.02
DEARBORN	DEARBORN	0.04
ELMERSMITH	ELMERSMITH	0.01
G-007	G-007	0.03
GIBSON	GIBSON	0.01
HAMLET	HAMLET	0.01
MEC	MEC	2.28
NEWTON	NEWTON	0.05
O-066	O-066	0.11

Bus #	Bus	MW Impact
RENSSELAER	RENSSELAER	0.01
TILTON	TILTON	0.12
TRIMBLE	TRIMBLE	0.02
WEC	WEC	0.17

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821896	272269	POWERTON ;	CE	272285	POWERTON ;RT	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	115.76	185.89	DC	161.28

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.86
274877	BISHOP HL;1U	0.99
274878	BISHOP HL;2U	0.99
293513	O-009 C1	0.38
293514	O-009 C2	0.19
293515	O-009 C3	0.21
293516	O-009 E1	9.92
293517	O-009 E2	5.04
293518	O-009 E3	5.55
293771	O-035 E	3.84
294401	BSHIL;1U E	25.83
294410	BSHIL;2U E	25.83
916211	Z1-072 E	2.91
919621	AA2-039 C	6.3
919622	AA2-039 E	42.14
926821	AC1-168 C O1	0.81
926822	AC1-168 E O1	5.43
926841	AC1-171 C O1	7.35
926842	AC1-171 E O1	49.06
927201	AC1-214 C O1	1.23
927202	AC1-214 E O1	3.92
934051	AD1-031 C O1	8.58
934052	AD1-031 E O1	14.0
939631	AE1-193 C O1	20.97
939632	AE1-193 E O1	140.31
939681	AE1-198 C O1	62.25
939682	AE1-198 E O1	52.9
953201	J715 C	1.0
953202	J715 E	5.43
990901	L-005 E	48.61
BAYOU	BAYOU	0.19
BIG_CAJUN1	BIG_CAJUN1	0.3
BIG_CAJUN2	BIG_CAJUN2	0.61
BLUEG	BLUEG	0.9
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.07
CARR	CARR	0.04
CATAWBA	CATAWBA	0.05
CBM-W1	CBM-W1	1.78
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03

Bus #	Bus	MW Impact
CHOCTAW	CHOCTAW	0.21
COFFEEN	COFFEEN	0.37
COTTONWOOD	COTTONWOOD	0.77
DEARBORN	DEARBORN	0.03
DUCKCREEK	DUCKCREEK	1.03
EDWARDS	EDWARDS	0.71
ELMERSMITH	ELMERSMITH	0.12
G-007	G-007	0.11
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.17
MEC	MEC	1.51
NEWTON	NEWTON	0.65
O-066	O-066	0.38
PRAIRIE	PRAIRIE	1.06
RENSSELAER	RENSSELAER	0.03
SANTEETLA	SANTEETLA	0.03
SMITHLAND	SMITHLAND	0.06
TILTON	TILTON	0.39
TRIMBLE	TRIMBLE	0.1
TVA	TVA	0.36
UNIONPOWER	UNIONPOWER	0.14
WEC	WEC	0.44
Z1-043	Z1-043	21.92

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822101	272366	ROCK FALL; B	CE	272094	NELSON ; B	CE	1	COMED_P4_155-38-L15508_	breaker	426.0	114.52	136.64	DC	94.2

Bus #	Bus	MW Impact
274832	U4-027	32.62
274848	CAMPGROVE;RU	0.77
274849	CRESCENT ;1U	0.24
274851	PROVIDENC;RU	0.36
274877	BISHOP HL;1U	0.58
274878	BISHOP HL;2U	0.58
293513	O-009 C1	0.92
293514	O-009 C2	0.46
293515	O-009 C3	0.51
293516	O-009 E1	23.89
293517	O-009 E2	12.13
293518	O-009 E3	13.36
293712	O-029 C	2.51
293713	O-029 C	1.38
293714	O-029 C	1.27
293715	O-029 E	65.59
293716	O-029 E	35.96
293717	O-029 E	33.05
293771	O-035 E	9.37
294401	BSHIL;1U E	15.08
294410	BSHIL;2U E	15.08
916211	Z1-072 E	7.09
919621	AA2-039 C	3.68
919622	AA2-039 E	24.6
925581	AC1-033 C	2.47
925582	AC1-033 E	16.56
926821	AC1-168 C O1	0.98
926822	AC1-168 E O1	6.58
926841	AC1-171 C O1	0.93
926842	AC1-171 E O1	6.19
927201	AC1-214 C O1	3.01
927202	AC1-214 E O1	9.56
934051	AD1-031 C O1	5.01
934052	AD1-031 E O1	8.18
937531	AD2-214 C	20.52
937532	AD2-214 E	9.66
939631	AE1-193 C O1	12.25
939632	AE1-193 E O1	81.96
939681	AE1-198 C O1	36.36
939682	AE1-198 E O1	30.9
953201	J715 C	1.5

Bus #	Bus	MW Impact
953202	J715 E	8.11
954201	J887 C	2.19
954202	J887 E	11.87
990901	L-005 E	20.12
AB2-013	AB2-013	5.37
CBM-N	CBM-N	0.09
CBM-S1	CBM-S1	0.96
CBM-S2	CBM-S2	0.34
CBM-W2	CBM-W2	12.33
CIN	CIN	0.71
CPLE	CPLE	0.13
G-007A	G-007A	0.3
IPL	IPL	0.41
LGEE	LGEE	0.14
MEC	MEC	2.07
MECS	MECS	0.04
NYISO	NYISO	0.41
O-066A	O-066A	0.14
VFT	VFT	0.82
Z1-043	Z1-043	27.98

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821881	272367	ROCK FALL; R	CE	272095	NELSON ; R	CE	1	COMED_P4_074-38-L7413__	breaker	230.0	143.45	207.79	DC	147.99

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.2
274877	BISHOP HL;1U	0.91
274878	BISHOP HL;2U	0.91
293513	O-009 C1	2.25
293514	O-009 C2	1.14
293515	O-009 C3	1.26
293516	O-009 E1	58.62
293517	O-009 E2	29.78
293518	O-009 E3	32.79
293771	O-035 E	3.98
294401	BSHIL;1U E	23.67
294410	BSHIL;2U E	23.67
916211	Z1-072 E	3.01
919621	AA2-039 C	5.77
919622	AA2-039 E	38.61
926821	AC1-168 C O1	0.8
926822	AC1-168 E O1	5.34
926841	AC1-171 C O1	1.33
926842	AC1-171 E O1	8.89
927201	AC1-214 C O1	1.28
927202	AC1-214 E O1	4.06
934051	AD1-031 C O1	7.87
934052	AD1-031 E O1	12.85
939631	AE1-193 C O1	19.24
939632	AE1-193 E O1	128.75
939681	AE1-198 C O1	57.12
939682	AE1-198 E O1	48.54
953201	J715 C	1.09
953202	J715 E	5.92
990901	L-005 E	31.29
BAYOU	BAYOU	0.03
BIG_CAJUN1	BIG_CAJUN1	0.02
BIG_CAJUN2	BIG_CAJUN2	0.05
CBM-N	CBM-N	0.05
CBM-S1	CBM-S1	0.2
CBM-S2	CBM-S2	0.1
CBM-W2	CBM-W2	3.54
CIN	CIN	0.47
COTTONWOOD	COTTONWOOD	0.15
CPLE	CPLE	0.04
FARMERCITY	FARMERCITY	0.2

Bus #	Bus	MW Impact
G-007A	G-007A	0.16
IPL	IPL	0.27
LGEE	LGEE	0.08
MECS	MECS	0.14
NYISO	NYISO	0.22
O-066A	O-066A	0.07
TATANKA	TATANKA	0.56
UNIONPOWER	UNIONPOWER	0.01
VFT	VFT	0.43
Z1-043	Z1-043	21.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
822121	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	135.87	137.32	DC	42.53

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.79
274722	S-055 E	9.15
274808	UNIV PK N;4U	1.62
274809	UNIV PK N;5U	1.62
274811	UNIV PK N;7U	1.62
274812	UNIV PK N;8U	1.62
274814	UNIV PK N;0U	1.62
274815	UNIV PK N;XU	1.62
274832	U4-027	8.61
274859	EASYR;U1 E	8.84
274860	EASYR;U2 E	8.84
274888	PILOT HIL;1E	14.86
274890	CAYUG;1U E	10.7
274891	CAYUG;2U E	10.7
275149	KEMPTON ;1E	14.86
290021	O50 E	15.62
290051	GSG-6; E	8.43
290108	LEEDK;1U E	19.61
293061	N-015 E	12.6
293516	O-009 E1	7.26
293517	O-009 E2	3.69
293518	O-009 E3	4.06
293644	O22 E1	7.88
293645	O22 E2	15.3
293715	O-029 E	7.84
293716	O-029 E	4.3
293717	O-029 E	3.95
293771	O-035 E	5.09
294392	P-010 E	16.0
294401	BSHIL;1U E	6.8
294410	BSHIL;2U E	6.8
294763	P-046 E	7.56
295109	WESTBROOK E	4.51
295111	SUBLETTE E	2.08
910542	X3-005 E	0.51
914641	Y2-103	36.59
915011	Y3-013 1	3.05
915021	Y3-013 2	3.05
915031	Y3-013 3	3.05
916211	Z1-072 E	3.85

Bus #	Bus	MW Impact
916221	Z1-073 E	4.35
916502	Z1-106 E1	1.02
916504	Z1-106 E2	1.02
916512	Z1-107 E	2.17
916522	Z1-108 E	2.02
918052	AA1-018 E	14.29
919221	AA1-146	14.12
919581	AA2-030	14.12
919621	AA2-039 C	1.66
919622	AA2-039 E	11.1
920272	AA2-123 E	1.98
924471	AB2-096	34.27
925161	AB2-173	2.52
925302	AB2-191 E	1.12
925581	AC1-033 C	1.11
925582	AC1-033 E	7.46
925881	AC1-067 O1	97.44
926311	AC1-109 1	1.55
926321	AC1-109 2	1.55
926331	AC1-110 1	1.54
926341	AC1-110 2	1.54
926351	AC1-111 1	0.62
926361	AC1-111 2	0.62
926371	AC1-111 3	0.62
926381	AC1-111 4	0.62
926391	AC1-111 5	0.62
926401	AC1-111 6	0.62
926431	AC1-114	1.92
926821	AC1-168 C O1	0.92
926822	AC1-168 E O1	6.18
927091	AC1-204 1	59.17
927101	AC1-204 2	59.21
927201	AC1-214 C O1	1.63
927202	AC1-214 E O1	5.19
927451	AC1-142A 1	3.45
927461	AC1-142A 2	3.45
927511	AC1-113 1	0.96
927521	AC1-113 2	0.96
927531	AC1-185 1	0.55
927541	AC1-185 2	0.55
927551	AC1-185 3	0.55
927561	AC1-185 4	0.55
927571	AC1-185 5	0.55
927581	AC1-185 6	0.55
927591	AC1-185 7	0.55
927601	AC1-185 8	0.55
930481	AB1-089	53.11
930501	AB1-091 O1	57.12
930741	AB1-122 1O1	58.21
930751	AB1-122 2O1	59.68
932881	AC2-115 1	1.92
932891	AC2-115 2	1.92

Bus #	Bus	MW Impact
932921	AC2-116	0.67
932931	AC2-117	10.39
933341	AC2-147 C	0.7
933342	AC2-147 E	1.15
933411	AC2-154 C	2.02
933412	AC2-154 E	3.29
933431	AC2-156 C O1	0.77
933432	AC2-156 E O1	1.26
933911	AD1-013 C	1.48
933912	AD1-013 E	2.37
933931	AD1-016 C	0.75
933932	AD1-016 E	1.23
934051	AD1-031 C O1	2.26
934052	AD1-031 E O1	3.69
934101	AD1-039 1	5.7
934111	AD1-039 2	5.85
934401	AD1-064 C O1	2.59
934402	AD1-064 E O1	12.13
934431	AD1-067 C	0.11
934432	AD1-067 E	0.44
934651	AD1-096 C	0.72
934652	AD1-096 E	1.17
934701	AD1-098 C O1	5.55
934702	AD1-098 E O1	4.05
934721	AD1-100 C	15.58
934722	AD1-100 E	72.69
934871	AD1-116 C	0.83
934872	AD1-116 E	1.36
934881	AD1-117 C	4.32
934882	AD1-117 E	2.88
934971	AD1-129 C	0.73
934972	AD1-129 E	0.49
935001	AD1-133 C O1	16.67
935002	AD1-133 E O1	11.11
936291	AD2-038 C O1	1.97
936292	AD2-038 E O1	13.19
936371	AD2-047 C O1	1.8
936372	AD2-047 E O1	19.42
936461	AD2-060	2.12
936511	AD2-066 C O1	6.83
936512	AD2-066 E O1	4.55
936781	AD2-101 C	3.51
936782	AD2-101 E	16.41
936791	AD2-102 C	9.71
936792	AD2-102 E	9.33
936961	AD2-130	0.46
937001	AD2-134 C	2.2
937002	AD2-134 E	9.1
937031	AD2-137 C O1	2.69
937032	AD2-137 E O1	12.6
937051	AD2-140 C O1	2.69
937052	AD2-140 E O1	12.61

Bus #	Bus	MW Impact
937061	AD2-141 C O1	2.68
937062	AD2-141 E O1	12.63
937071	AD2-142 C O1	5.39
937072	AD2-142 E O1	25.22
937121	AD2-148 C O1	2.74
937122	AD2-148 E O1	12.83
937131	AD2-149 C O1	2.74
937132	AD2-149 E O1	12.83
937141	AD2-150 C O1	2.74
937142	AD2-150 E O1	12.83
937181	AD2-155 C O1	2.74
937182	AD2-155 E O1	12.83
937311	AD2-172 C	1.98
937312	AD2-172 E	2.74
937321	AD2-175 C	12.77
937322	AD2-175 E	8.51
937331	AD2-176 C O1	5.94
937332	AD2-176 E O1	3.96
937401	AD2-194 1	6.36
937411	AD2-194 2	6.37
937531	AD2-214 C	3.53
937532	AD2-214 E	1.66
938012	AE1-002 E O1	5.4
938511	AE1-070 1	7.48
938521	AE1-070 2	6.84
938851	AE1-113 C O1	7.32
938852	AE1-113 E O1	23.0
938861	AE1-114 C O1	2.87
938862	AE1-114 E O1	10.98
939051	AE1-134 1	1.1
939061	AE1-134 2	1.1
939321	AE1-163 C O1	4.63
939322	AE1-163 E O1	28.42
939351	AE1-166 C O1	8.28
939352	AE1-166 E O1	7.64
939401	AE1-172 C O1	4.91
939402	AE1-172 E O1	22.97
939631	AE1-193 C O1	5.53
939632	AE1-193 E O1	37.0
939681	AE1-198 C O1	16.41
939682	AE1-198 E O1	13.95
939691	AE1-199	1.93
939701	AE1-201 C	1.62
939702	AE1-201 E	0.36
939732	AE1-204 E	0.24
939861	AE1-222 1	64.28
939871	AE1-222 2	65.91
939921	AE1-228 C O1	8.11
939922	AE1-228 E O1	5.4
939961	AE1-233 C O1	1.88
939962	AE1-233 E O1	7.77
940101	AE1-252 C O1	8.02

Bus #	Bus	MW Impact
940102	AE1-252 E O1	5.35
990901	L-005 E	5.05
AB2-013	AB2-013	12.84
AE1-033	AE1-033	14.59
BLUEG	BLUEG	4.41
CALDERWOOD	CALDERWOOD	0.05
CANNELTON	CANNELTON	0.06
CARR	CARR	0.61
CATAWBA	CATAWBA	0.23
CBM-S1	CBM-S1	1.22
CBM-W1	CBM-W1	21.89
CBM-W2	CBM-W2	43.2
CHEOAH	CHEOAH	0.05
CHILHOWEE	CHILHOWEE	0.01
DEARBORN	DEARBORN	2.62
ELMERSMITH	ELMERSMITH	0.06
G-007	G-007	1.71
GIBSON	GIBSON	0.02
HAMLET	HAMLET	0.88
MEC	MEC	30.08
O-066	O-066	5.77
RENSSELAER	RENSSELAER	0.49
SANTEETLA	SANTEETLA	0.02
TRIMBLE	TRIMBLE	0.52
WEC	WEC	6.46
Z1-043	Z1-043	22.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821941	293510	O09 OP1 138	CE	272367	ROCK FALL; R	CE	1	COMED_P4_074-38-L7413__	breaker	331.0	115.55	162.03	DC	153.84

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293513	O-009 C1	2.34
293514	O-009 C2	1.18
293515	O-009 C3	1.31
293516	O-009 E1	60.95
293517	O-009 E2	30.96
293518	O-009 E3	34.09
293771	O-035 E	4.14
294401	BSHIL;1U E	24.6
294410	BSHIL;2U E	24.6
916211	Z1-072 E	3.13
919621	AA2-039 C	6.0
919622	AA2-039 E	40.13
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.55
926841	AC1-171 C O1	1.38
926842	AC1-171 E O1	9.24
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.22
934051	AD1-031 C O1	8.18
934052	AD1-031 E O1	13.35
939631	AE1-193 C O1	20.0
939632	AE1-193 E O1	133.85
939681	AE1-198 C O1	59.38
939682	AE1-198 E O1	50.46
953201	J715 C	1.14
953202	J715 E	6.16
990901	L-005 E	32.53
BAYOU	BAYOU	0.04
BIG_CAJUN1	BIG_CAJUN1	0.04
BIG_CAJUN2	BIG_CAJUN2	0.07
CBM-N	CBM-N	0.05
CBM-S1	CBM-S1	0.19
CBM-S2	CBM-S2	0.1
CBM-W2	CBM-W2	3.54
CIN	CIN	0.48
COTTONWOOD	COTTONWOOD	0.18
CPLE	CPLE	0.04

Bus #	Bus	MW Impact
FARMERCITY	FARMERCITY	0.22
G-007A	G-007A	0.17
IPL	IPL	0.28
LGEE	LGEE	0.08
MECS	MECS	0.15
NYISO	NYISO	0.23
O-066A	O-066A	0.08
TATANKA	TATANKA	0.6
UNIONPOWER	UNIONPOWER	0.02
VFT	VFT	0.45
Z1-043	Z1-043	22.72

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823224	293710	O29	CE	272097	NELSON ;RT	CE	1	COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	tower	275.0	184.18	223.1	DC	107.01

Bus #	Bus	MW Impact
274832	U4-027	31.91
274848	CAMPGROVE;RU	0.87
274849	CRESCENT ;1U	0.27
274851	PROVIDENC;RU	0.41
274877	BISHOP HL;1U	0.66
274878	BISHOP HL;2U	0.66
293513	O-009 C1	1.66
293514	O-009 C2	0.84
293515	O-009 C3	0.93
293516	O-009 E1	43.42
293517	O-009 E2	22.06
293518	O-009 E3	24.29
293712	O-029 C	2.16
293713	O-029 C	1.18
293714	O-029 C	1.09
293715	O-029 E	56.29
293716	O-029 E	30.87
293717	O-029 E	28.37
293771	O-035 E	10.61
294401	BSHIL;1U E	17.1
294410	BSHIL;2U E	17.1
916211	Z1-072 E	8.03
919621	AA2-039 C	4.17
919622	AA2-039 E	27.9
925581	AC1-033 C	2.8
925582	AC1-033 E	18.76
926821	AC1-168 C O1	1.12
926822	AC1-168 E O1	7.49
926841	AC1-171 C O1	1.03
926842	AC1-171 E O1	6.89
927201	AC1-214 C O1	3.41
927202	AC1-214 E O1	10.83
934051	AD1-031 C O1	5.69
934052	AD1-031 E O1	9.29
939631	AE1-193 C O1	13.91
939632	AE1-193 E O1	93.1
939681	AE1-198 C O1	41.31
939682	AE1-198 E O1	35.1
953201	J715 C	1.77
953202	J715 E	9.57

Bus #	Bus	MW Impact
954201	J887 C	2.54
954202	J887 E	13.72
990901	L-005 E	22.79
AB2-013	AB2-013	5.59
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.34
CBM-S2	CBM-S2	0.16
CBM-W2	CBM-W2	5.87
CIN	CIN	0.61
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.22
G-007A	G-007A	0.23
IPL	IPL	0.35
LGEE	LGEE	0.11
MECS	MECS	0.2
NYISO	NYISO	0.32
O-066A	O-066A	0.11
TATANKA	TATANKA	0.7
VFT	VFT	0.62
Z1-043	Z1-043	31.71

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
508290	346809	7CASEY	AMIL	247712	05SULLIVAN	AEP	1	AEP_P4_#3128_05EUGENE 345_A2	breaker	1466.0	144.34	145.72	DC	44.24

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	6.24
274650	KINCAID ;1U	14.71
274651	KINCAID ;2U	14.73
274832	U4-027	8.54
274853	TWINGROVE;U1	0.74
274854	TWINGROVE;U2	0.74
274859	EASYR;U1 E	6.8
274860	EASYR;U2 E	6.8
274890	CAYUG;1U E	10.14
274891	CAYUG;2U E	10.14
276150	W2-048 E	2.05
290021	O50 E	10.78
290051	GSG-6; E	5.68
290108	LEEDK;1U E	12.4
290261	S-027 E	19.36
290265	S-028 E	19.36
293516	O-009 E1	6.47
293517	O-009 E2	3.29
293518	O-009 E3	3.62
293644	O22 E1	4.9
293645	O22 E2	9.51
293715	O-029 E	6.65
293716	O-029 E	3.65
293717	O-029 E	3.35
293771	O-035 E	5.18
294401	BSHIL;1U E	7.08
294410	BSHIL;2U E	7.08
294763	P-046 E	5.38
295109	WESTBROOK E	3.04
295111	SUBLETTE E	1.65
296125	R-030 C3	3.34
296128	R-030 E3	13.34
296271	R-030 C2	3.3
296272	R-030 E2	13.18
296308	R-030 C1	3.3
296309	R-030 E1	13.18
905081	W4-005 C	0.98
905082	W4-005 E	42.62
909052	X2-022 E	28.51
916211	Z1-072 E	3.92
916221	Z1-073 E	2.93

Bus #	Bus	MW Impact
917502	Z2-087 E	17.32
918052	AA1-018 E	7.91
919221	AA1-146	11.65
919581	AA2-030	11.65
919621	AA2-039 C	1.73
919622	AA2-039 E	11.55
920272	AA2-123 E	1.22
924041	AB2-047 C O1	3.3
924042	AB2-047 E O1	22.1
924261	AB2-070 C O1	3.84
924262	AB2-070 E O1	25.68
924471	AB2-096	21.83
925161	AB2-173	2.08
925302	AB2-191 E	0.75
925581	AC1-033 C	1.16
925582	AC1-033 E	7.76
925771	AC1-053 C	3.87
925772	AC1-053 E	25.93
926431	AC1-114	1.3
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.54
926841	AC1-171 C O1	1.14
926842	AC1-171 E O1	7.61
927201	AC1-214 C O1	1.66
927202	AC1-214 E O1	5.29
927511	AC1-113 1	0.65
927521	AC1-113 2	0.65
927531	AC1-185 1	0.43
927541	AC1-185 2	0.43
927551	AC1-185 3	0.43
927561	AC1-185 4	0.43
927571	AC1-185 5	0.43
927581	AC1-185 6	0.43
927591	AC1-185 7	0.43
927601	AC1-185 8	0.43
930481	AB1-089	35.32
930741	AB1-122 1O1	34.94
932881	AC2-115 1	1.3
932891	AC2-115 2	1.3
932921	AC2-116	0.45
933341	AC2-147 C	0.54
933342	AC2-147 E	0.88
933911	AD1-013 C	0.99
933912	AD1-013 E	1.59
933931	AD1-016 C	0.46
933932	AD1-016 E	0.76
934051	AD1-031 C O1	2.35
934052	AD1-031 E O1	3.84
934101	AD1-039 1	3.42
934401	AD1-064 C O1	1.64
934402	AD1-064 E O1	7.66
934431	AD1-067 C	0.07

Bus #	Bus	MW Impact
934432	AD1-067 E	0.3
934651	AD1-096 C	0.51
934652	AD1-096 E	0.83
934701	AD1-098 C O1	3.77
934702	AD1-098 E O1	2.75
934871	AD1-116 C	0.46
934872	AD1-116 E	0.75
934881	AD1-117 C	3.31
934882	AD1-117 E	2.21
934971	AD1-129 C	0.47
934972	AD1-129 E	0.31
935001	AD1-133 C O1	14.12
935002	AD1-133 E O1	9.41
935141	AD1-148	7.45
936291	AD2-038 C O1	1.34
936292	AD2-038 E O1	8.98
936511	AD2-066 C O1	4.76
936512	AD2-066 E O1	3.17
936771	AD2-100 C O1	21.12
936772	AD2-100 E O1	14.08
936791	AD2-102 C	6.72
936792	AD2-102 E	6.46
936972	AD2-131 E O1	8.38
937001	AD2-134 C	1.48
937002	AD2-134 E	6.13
937161	AD2-153 C O1	3.2
937162	AD2-153 E O1	15.0
937171	AD2-154 C O1	3.2
937172	AD2-154 E O1	15.0
937211	AD2-159 C	4.61
937212	AD2-159 E	21.56
937311	AD2-172 C	1.41
937312	AD2-172 E	1.95
937331	AD2-176 C O1	3.65
937332	AD2-176 E O1	2.44
937531	AD2-214 C	3.23
937532	AD2-214 E	1.52
938851	AE1-113 C O1	4.98
938852	AE1-113 E O1	15.67
938861	AE1-114 C O1	2.2
938862	AE1-114 E O1	8.42
939051	AE1-134 1	0.91
939061	AE1-134 2	0.91
939321	AE1-163 C O1	3.4
939322	AE1-163 E O1	20.86
939401	AE1-172 C O1	4.02
939402	AE1-172 E O1	18.81
939631	AE1-193 C O1	5.75
939632	AE1-193 E O1	38.49
939681	AE1-198 C O1	17.08
939682	AE1-198 E O1	14.51
939691	AE1-199	1.29

Bus #	Bus	MW Impact
939701	AE1-201 C	1.0
939702	AE1-201 E	0.22
939741	AE1-205 C O1	8.33
939742	AE1-205 E O1	11.5
939861	AE1-222 1	38.59
939921	AE1-228 C O1	5.41
939922	AE1-228 E O1	3.61
939961	AE1-233 C O1	1.15
939962	AE1-233 E O1	4.76
940101	AE1-252 C O1	7.6
940102	AE1-252 E O1	5.07
950291	J291	3.2
950701	J196 C	1.33
950702	J196 E	5.3
951001	J339	6.03
951741	J474 C	2.02
951742	J474 E	10.95
952251	J641	10.35
952271	J644	9.57
952321	J734	5.07
952651	J756 C	2.46
952652	J756 E	13.33
952871	J757 C	4.06
952872	J757 E	21.98
953241	J467 C	2.76
953242	J467 E	14.91
953371	J808	9.06
953401	J811	17.76
953431	J853	11.11
953641	J813	43.81
953651	J815	32.11
953671	J817	10.67
953741	J826 C	1.65
953742	J826 E	8.94
953801	J835 C	2.68
953802	J835 E	14.48
953851	J845 C	1.72
953852	J845 E	9.32
953881	J848 C	5.27
953882	J848 E	28.51
953951	J859	9.79
954081	J872 C	4.44
954082	J872 E	24.03
954181	J884	7.67
954411	J912	14.24
954681	J949	38.92
954721	J750 C	2.11
954722	J750 E	11.4
954761	J468 C	7.08
954762	J468 E	28.32
990901	L-005 E	11.18
AB2-013	AB2-013	13.3

Bus #	Bus	MW Impact
AE1-033	AE1-033	10.55
AE1-042	AE1-042	10.08
BLUEG	BLUEG	10.38
CARR	CARR	0.29
CBM-S1	CBM-S1	13.17
CBM-S2	CBM-S2	2.35
CBM-W1	CBM-W1	28.23
CBM-W2	CBM-W2	199.79
CIN	CIN	3.85
CPLE	CPLE	0.56
DEARBORN	DEARBORN	0.69
G-007	G-007	0.8
GIBSON	GIBSON	0.02
MEC	MEC	45.61
O-066	O-066	2.69
RENSSELAER	RENSSELAER	0.23
TRIMBLE	TRIMBLE	1.31
WEC	WEC	4.13
Z1-043	Z1-043	21.97

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
821901	348962	4KEEMIN	AMIL	272111	NORMANDY ; R	CE	1	COMED_P4_074-38-L7413__	breaker	214.0	109.97	181.91	DC	153.96

Bus #	Bus	MW Impact
274848	CAMPGROVE;RU	1.25
274877	BISHOP HL;1U	0.94
274878	BISHOP HL;2U	0.94
293771	O-035 E	4.15
294401	BSHIL;1U E	24.62
294410	BSHIL;2U E	24.62
916211	Z1-072 E	3.14
919621	AA2-039 C	6.0
919622	AA2-039 E	40.16
926821	AC1-168 C O1	0.83
926822	AC1-168 E O1	5.57
926841	AC1-171 C O1	1.39
926842	AC1-171 E O1	9.25
927201	AC1-214 C O1	1.33
927202	AC1-214 E O1	4.24
934051	AD1-031 C O1	8.19
934052	AD1-031 E O1	13.36
939631	AE1-193 C O1	20.01
939632	AE1-193 E O1	133.95
939681	AE1-198 C O1	59.43
939682	AE1-198 E O1	50.5
953201	J715 C	1.14
953202	J715 E	6.16
954201	J887 C	0.59
954202	J887 E	3.19
990901	L-005 E	32.55
BAYOU	BAYOU	0.02
CBM-N	CBM-N	0.07
CBM-S1	CBM-S1	0.26
CBM-S2	CBM-S2	0.14
CBM-W2	CBM-W2	4.06
CIN	CIN	0.54
COTTONWOOD	COTTONWOOD	0.09
CPLE	CPLE	0.06
FARMERCITY	FARMERCITY	0.21
G-007A	G-007A	0.22
IPL	IPL	0.31
LGEE	LGEE	0.1
MECS	MECS	0.23
NYISO	NYISO	0.3
O-066A	O-066A	0.1

Bus #	Bus	MW Impact
TATANKA	TATANKA	0.58
UNIONPOWER	UNIONPOWER	0.0
VFT	VFT	0.59
Z1-043	Z1-043	22.77

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
823235	930740	AB1-122 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA	tower	1195.0	134.68	136.15	DC	38.78

Bus #	Bus	MW Impact
274677	POWERTON ;5U	26.24
274678	POWERTON ;6U	26.31
274861	TOP CROP ;1U	0.7
274862	TOP CROP ;2U	1.35
274879	MINONK ;1U	0.74
290021	O50 E	19.44
293644	O22 E1	18.15
293645	O22 E2	35.22
294401	BSHIL;1U E	6.21
294410	BSHIL;2U E	6.21
918051	AA1-018 C	0.67
918052	AA1-018 E	29.1
919621	AA2-039 C	1.51
919622	AA2-039 E	10.13
925581	AC1-033 C	1.02
925582	AC1-033 E	6.81
926841	AC1-171 C O1	0.85
926842	AC1-171 E O1	5.66
930741	AB1-122 1O1	524.81
934051	AD1-031 C O1	2.06
934052	AD1-031 E O1	3.37
934101	AD1-039 1	51.43
934871	AD1-116 C	1.69
934872	AD1-116 E	2.77
936291	AD2-038 C O1	4.35
936292	AD2-038 E O1	29.11
938851	AE1-113 C O1	16.15
938852	AE1-113 E O1	50.77
939321	AE1-163 C O1	10.9
939322	AE1-163 E O1	66.96
939631	AE1-193 C O1	5.04
939632	AE1-193 E O1	33.74
939681	AE1-198 C O1	14.97
939682	AE1-198 E O1	12.72
939861	AE1-222 1	579.57
954702	J844 E	27.32
990901	L-005 E	9.43
AB2-013	AB2-013	28.99
CARR	CARR	0.04
CBM-S1	CBM-S1	3.25

Bus #	Bus	MW Impact
CBM-S2	CBM-S2	0.73
CBM-W1	CBM-W1	6.57
CBM-W2	CBM-W2	48.55
CIN	CIN	1.0
CPLE	CPLE	0.21
DEARBORN	DEARBORN	0.55
G-007	G-007	0.1
IPL	IPL	0.49
LGEE	LGEE	0.12
MEC	MEC	20.19
O-066	O-066	0.35
RENSSELAER	RENSSELAER	0.03
Z1-043	Z1-043	18.2

Affected Systems

MISO

MISO Impacts to be determined during later study phases (as applicable).

Contingency Name	Contingency Definition
COMED_P2-2_001_LA-138B__1	CONTINGENCY 'COMED_P2-2_001_LA-138B__1' DISCONNECT BUS 271908 / LASCO STA; B 138 END
COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA	CONTINGENCY 'COMED_P7_345-L19601_B-S_+_345-L9801__R-S_FSA' TRIP BRANCH FROM BUS 270790 TO BUS 270770 CKT 1 / KATYD; B 345 GOODI;4B 345 TRIP BRANCH FROM BUS 918050 TO BUS 270769 CKT 1 / AA1-018 GOODINGS ;2R 345 END
COMED_P7_345-L0301__B-S_+_345-L9801__R-S_FSA-B	CONTINGENCY 'COMED_P7_345-L0301__B-S_+_345-L9801__R-S_FSA-B' TRIP BRANCH FROM BUS 939320 TO BUS 270790 CKT 1 / AE1-163 TAP 345 KATYDID TRIP BRANCH FROM BUS 918050 TO BUS 270769 CKT 1 / AA1-018 GOODINGS ;2R 345 END
COMED_P2-2_074_KE-138___1_NO_FSA	CONTINGENCY 'COMED_P2-2_074_KE-138___1_NO_FSA' DISCONNECT BUS 271836 / KEWAN; 1 138 DISCONNECT BUS 271837 / KEWAN; 5 138 DISCONNECT BUS 271838 / KEWAN; 4 138 DISCONNECT BUS 271018 / ANNAWAN; R 138 / ADDED TO TAKE OUT FULL FSA PATH END
COMED_P4_112-65-BT3-4__	CONTINGENCY 'COMED_P4_112-65-BT3-4__' TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 TRIP BRANCH FROM BUS 275232 TO BUS 270644 CKT 1 / WILTO;3M 345 WILTO; 765 TRIP BRANCH FROM BUS 275232 TO BUS 270926 CKT 1 / WILTO;3M 345 WILTO; B 345 TRIP BRANCH FROM BUS 275232 TO BUS 275332 CKT 1 / WILTO;3M 345 WILTO;3C 33 END

Contingency Name	Contingency Definition
COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A	CONTINGENCY 'COMED_P7_138-L0903__R-S_+_138-L1206__R-S-A' TRIP BRANCH FROM BUS 271567 TO BUS 271337 CKT 1 / GOOSE LK ; R 138 DRESDEN ; R 138 TRIP BRANCH FROM BUS 271567 TO BUS 274190 CKT 7 / GOOSE LK ; R 138 GOOSE LK ; 34.5 TRIP BRANCH FROM BUS 271725 TO BUS 271723 CKT 1 / ESS J370 ;RT 138 ESS J370 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 271181 TO BUS 271180 / ESS J326 ; R 138 ESS J326 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 100 PERCENT LOAD FROM BUS 271783 TO BUS 271416 / JOLIET374; R 138 ESS J390 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272019 TO BUS 272018 / MINOOKA ; R 138 MINOOKA ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272318 TO BUS 272319 / ESS J375 ; B 138 ESS J375 ; R 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 271185 / ESS J326 ;RT 138 DISCONNECT BUS 271417 / ESS J390 ; R 138 DISCONNECT BUS 271473 / ESS J305 ;RT 138 TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 END
COMED_P4_001-38-TR81___	CONTINGENCY 'COMED_P4_001-38-TR81___' TRIP BRANCH FROM BUS 270802 TO BUS 270803 CKT 1 / LASCO STA; B 345 LASCO STA; R 345 TRIP BRANCH FROM BUS 270802 TO BUS 271908 CKT 1 / LASCO STA; B 345 LASCO STA; B 138 DISCONNECT BUS 271908 / LASCO STA; B 138 TRIP BRANCH FROM BUS 270802 TO BUS 270803 CKT 1 / LASCO STA; B 345 LASCO STA; R 345 END
COMED_P2-1_074-L6101___	CONTINGENCY 'COMED_P2-1_074-L6101___' TRIP BRANCH FROM BUS 271835 TO BUS 271655 CKT 1 / KEWAN; 2 138 HENNE; T 138 END
COMED_P4_023-65-BT2-3__	CONTINGENCY 'COMED_P4_023-65-BT2-3__' TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 TRIP BRANCH FROM BUS 270607 TO BUS 270630 CKT 1 / COLLI; 765 PLANO; 765 END
COMED_P4_116-45-TR82___	CONTINGENCY 'COMED_P4_116-45-TR82___' TRIP BRANCH FROM BUS 270769 TO BUS 271565 TO BUS 275324 CKT 1 / GOODINGS ;2R 345 GOODINGS ; R 138 GOODINGS ;2C 34.5 DISCONNECT BUS 270769 / GOODINGS ;2R 345 END
COMED_P2-1_155-L15518__	CONTINGENCY 'COMED_P2-1_155-L15518__' TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 END

Contingency Name	Contingency Definition
COMED_P4_112-45-BT4-5__	CONTINGENCY 'COMED_P4_112-45-BT4-5__' TRIP BRANCH FROM BUS 270666 TO BUS 270664 CKT 1 / B ISL;BT 345 B ISL; B 345 TRIP BRANCH FROM BUS 270666 TO BUS 270926 CKT 1 / B ISL;BT 345 WILTO; B 345 TRIP BRANCH FROM BUS 270770 TO BUS 270666 CKT 1 / GOODI;4B 345 B ISL;BT 345 TRIP BRANCH FROM BUS 270852 TO BUS 270704 CKT 1 / PONTI; B 345 LORET; B 345 END
COMED_P4_155-38-TR84___	CONTINGENCY 'COMED_P4_155-38-TR84___' TRIP BRANCH FROM BUS 275204 TO BUS 270828 CKT 1 / NELSO;4M 138 NELSO; B 345 TRIP BRANCH FROM BUS 275204 TO BUS 272094 CKT 1 / NELSO;4M 138 NELSO; B 138 TRIP BRANCH FROM BUS 275204 TO BUS 275304 CKT 1 / NELSO;4M 138 NELSO;4C 34.5 TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 END
COMED_P7_138-L6101___-S_+_138-L7713__R-S-B	CONTINGENCY 'COMED_P7_138-L6101___-S_+_138-L7713__R-S-B' TRIP BRANCH FROM BUS 271655 TO BUS 271835 CKT 1 / HENNEEPIN; T 138 KEWANEE ;23 138 TRIP BRANCH FROM BUS 271655 TO BUS 348918 CKT 1 / HENNEEPIN; T 138 4HENNEPIN S 138 TRIP BRANCH FROM BUS 926820 TO BUS 271655 CKT 1 / AD2-066 TAP ; 138 HENNEEPIN; T 138 TRIP BRANCH FROM BUS 271241 TO BUS 272189 CKT 1 / CRESCENT ; R 138 OGLESBY ; T 138 TRIP BRANCH FROM BUS 272189 TO BUS 936510 CKT 1 / OGLESBY ; T 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272189 TO BUS 348935 CKT 1 / OGLESBY ; T 138 4OGLESBY MN 138 END
COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA	CONTINGENCY 'COMED_P7_138-L7411__R-R_+_138-L7408__R-R_U4-027-FSA' TRIP BRANCH FROM BUS 348962 TO BUS 271835 CKT 1 / NORMA; R 138 KEWAN; 2 138 TRIP BRANCH FROM BUS 271018 TO BUS 271836 CKT 1 / U4-027 KEWAN; 1 138 TRIP BRANCH FROM BUS 271018 TO BUS 272110 CKT 1 / U4-027 NORMANDY END
AEP_P4_#3128_05EUGENE 345_A2	CONTINGENCY 'AEP_P4_#3128_05EUGENE 345_A2' OPEN BRANCH FROM BUS 243221 TO BUS 249504 CKT 1 / 243221 05EUGENE 345 249504 08CAYSUB 345 1 OPEN BRANCH FROM BUS 243221 TO BUS 348885 CKT 1 / 243221 05EUGENE 345 348885 7BUNSONVILLE 345 1 END
COMED_P2-2_116_GG-345R__2_NO_FSA	CONTINGENCY 'COMED_P2-2_116_GG-345R__2_NO_FSA' DISCONNECT BUS 270769 / GOODI;2R 345 END
COMED_P1-2_138-L15508_R-R	CONTINGENCY 'COMED_P1-2_138-L15508_R-R' TRIP BRANCH FROM BUS 271331 TO BUS 271333 CKT 1 / DIXON;8R 138 DIXON; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 271331 CKT 1 / NELSO;RT 138 DIXON;8R 138 TRIP BRANCH FROM BUS 272097 TO BUS 272095 CKT 1 / NELSO;RT 138 NELSO; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 293710 CKT 1 / NELSO;RT 138 O29 138 MOVE 100 PERCENT LOAD FROM BUS 271331 TO BUS 271330 / DIXON;8R 138 DIXON;7B 138 END

Contingency Name	Contingency Definition
COMED_P1-2_138-L15518GB-R-A	CONTINGENCY 'COMED_P1-2_138-L15518GB-R-A' TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272366 TO BUS 272512 CKT 1 / R FAL; B 138 H71 ;BT 138 TRIP BRANCH FROM BUS 272512 TO BUS 937530 CKT 1 / H71 ;BT 138 AD2-214 TAP 138 TRIP BRANCH FROM BUS 272512 TO BUS 272514 CKT 1 / H71 ;BT 138 H71 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272514 TO BUS 272515 / H71 ; B 138 H71 ; R 138 CLOSE LINE FROM BUS 272366 TO BUS 272367 CKT 1 / R FAL; B 138 R FAL; R 138 END
COMED_P2-2_074_KE-138___1_FSA	CONTINGENCY 'COMED_P2-2_074_KE-138___1_FSA' DISCONNECT BUS 271836 / KEWAN; 1 138 DISCONNECT BUS 271837 / KEWAN; 5 138 DISCONNECT BUS 271838 / KEWAN; 4 138 END
COMED_P4_023-65-BT4-5__	CONTINGENCY 'COMED_P4_023-65-BT4-5__' TRIP BRANCH FROM BUS 275168 TO BUS 270607 CKT 1 / COLLI;2M 345 COLLI; 765 TRIP BRANCH FROM BUS 275168 TO BUS 270697 CKT 1 / COLLI;2M 345 COLLI; R 345 TRIP BRANCH FROM BUS 275168 TO BUS 275268 CKT 1 / COLLI;2M 345 COLLI;2C 33 TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 END
COMED_P4_001-38-L0108__	CONTINGENCY 'COMED_P4_001-38-L0108__' TRIP BRANCH FROM BUS 271908 TO BUS 271986 CKT 1 / LASCO; B 138 MAZON; B 138 DISCONNECT BUS 271908 / LASCO; B 138 END
COMED_P1-2_138-L1206__R-S-A	CONTINGENCY 'COMED_P1-2_138-L1206__R-S-A' TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 END
COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A	CONTINGENCY 'COMED_P7_138-L15509GR-R_+_138-L15518GB-R-A' TRIP BRANCH FROM BUS 272095 TO BUS 272367 CKT 1 / NELSON ; R 138 ROCK FALL; R 138 TRIP BRANCH FROM BUS 272367 TO BUS 274244 CKT 7 / ROCK FALL; R 138 ROCK FALL; 34.5 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSON ; B 138 ROCK FALL; B 138 TRIP BRANCH FROM BUS 272366 TO BUS 272512 CKT 1 / ROCK FALL; B 138 ESS H71 ;BT 138 TRIP BRANCH FROM BUS 272512 TO BUS 937530 CKT 1 / ESS H71 ;BT 138 AD2-214 TAP; 138 TRIP BRANCH FROM BUS 272512 TO BUS 272514 CKT 1 / ESS H71 ;BT 138 ESS H71 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272514 TO BUS 272515 / ESS H71 ; B 138 ESS H71 ; R 138 CLOSE LINE FROM BUS 272366 TO BUS 272367 CKT 1 / ROCK FALL; B 138 ROCK FALL; R 138 END

Contingency Name	Contingency Definition
271837	CONTINGENCY '271837' OPEN BRANCH FROM BUS 271837 TO BUS 271838 CKT 1 END
AEP_P1-2_#286	CONTINGENCY 'AEP_P1-2_#286' OPEN BRANCH FROM BUS 243221 TO BUS 348885 CKT 1 / 243221 05EUGENE 345 348885 7BUNSONVILLE 345 1 END
COMED_P4_112-65-BT4-5__	CONTINGENCY 'COMED_P4_112-65-BT4-5__' TRIP BRANCH FROM BUS 270644 TO BUS 243206 CKT 1 / WILTO; 765 05DUMONT 765 TRIP BRANCH FROM BUS 275233 TO BUS 270644 CKT 1 / WILTO;4M 345 WILTO; 765 TRIP BRANCH FROM BUS 275233 TO BUS 270927 CKT 1 / WILTO;4M 345 WILTO; R 345 TRIP BRANCH FROM BUS 275233 TO BUS 275333 CKT 1 / WILTO;4M 345 WILTO;4C 33 END
271838	CONTINGENCY '271838' OPEN BRANCH FROM BUS 271838 TO BUS 271845 CKT 1 END
AEP_P1-2_#8907	CONTINGENCY 'AEP_P1-2_#8907' OPEN BRANCH FROM BUS 247712 TO BUS 346809 CKT 1 / 247712 05SULLIVAN 345 346809 7CASEY 345 1 END
COMED_P4_155-45-BT6-7__	CONTINGENCY 'COMED_P4_155-45-BT6-7__' TRIP BRANCH FROM BUS 275204 TO BUS 270828 CKT 1 / NELSO;4M 138 NELSO; B 345 TRIP BRANCH FROM BUS 275204 TO BUS 272094 CKT 1 / NELSO;4M 138 NELSO; B 138 TRIP BRANCH FROM BUS 275204 TO BUS 275304 CKT 1 / NELSO;4M 138 NELSO;4C 34.5 TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 END
COMED_P7_345-L6607__B-S_+_345-L97008_R-S	CONTINGENCY 'COMED_P7_345-L6607__B-S_+_345-L97008_R-S' TRIP BRANCH FROM BUS 270728 TO BUS 274750 CKT 1 / E FRANKFO; B 345 CRETE EC ;BP 345 TRIP BRANCH FROM BUS 274804 TO BUS 243229 CKT 1 / UNIV PK N;RP 345 05OLIVE 345 END
COMED_P1-2_138-L13304_R-R	CONTINGENCY 'COMED_P1-2_138-L13304_R-R' TRIP BRANCH FROM BUS 272367 TO BUS 293510 CKT 1 / R FAL; R 138 O9 138 END
COMED_P7_138-L7411__R-R_+_138-L7408__R-R	CONTINGENCY 'COMED_P7_138-L7411__R-R_+_138-L7408__R-R' TRIP BRANCH FROM BUS 348962 TO BUS 271835 CKT 1 / NORMA; R 138 KEWAN; 2 138 TRIP BRANCH FROM BUS 271018 TO BUS 271836 CKT 1 / U4-027 KEWAN; 1 138 END

Contingency Name	Contingency Definition
COMED_P4_074-38-L7413__	CONTINGENCY 'COMED_P4_074-38-L7413__' TRIP BRANCH FROM BUS 271836 TO BUS 271241 CKT 1 / KEWAN; 1 138 CRESC; R 138 DISCONNECT BUS 271836 / KEWAN; 1 138 DISCONNECT BUS 271837 / KEWAN; 5 138 DISCONNECT BUS 271838 / KEWAN; 4 138 END
COMED_P1-2_138-L0112__B-S	CONTINGENCY 'COMED_P1-2_138-L0112__B-S' TRIP BRANCH FROM BUS 271844 TO BUS 271908 CKT 1 / KICKA; B 138 LASCO; B 138 END
COMED_P4_116-45-L9801_FSA	CONTINGENCY 'COMED_P4_116-45-L9801_FSA' TRIP BRANCH FROM BUS 918050 TO BUS 270769 CKT 1 / AA1-018 GOODINGS ;2R 345 DISCONNECT BUS 270769 / GOODI;2R 345 END
COMED_P7_138-L1206__R-S_+_345-L2311__R-S	CONTINGENCY 'COMED_P7_138-L1206__R-S_+_345-L2311__R-S' TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 TRIP BRANCH FROM BUS 270697 TO BUS 270717 CKT 1 / COLLINS ; R 345 DRESDEN ; R 345 END
COMED_P4_937-45-BT1-2__	CONTINGENCY 'COMED_P4_937-45-BT1-2__' TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 TRIP BRANCH FROM BUS 274768 TO BUS 270678 CKT 1 / LEECO;BP 345 BYRON; B 345 END
COMED_P4_116-45-L11614_	CONTINGENCY 'COMED_P4_116-45-L11614_' TRIP BRANCH FROM BUS 270667 TO BUS 270665 CKT 1 / B ISL;RT 345 B ISL; R 345 TRIP BRANCH FROM BUS 270667 TO BUS 270927 CKT 1 / B ISL;RT 345 WILTO; R 345 TRIP BRANCH FROM BUS 270769 TO BUS 270667 CKT 1 / GOODI;2R 345 B ISL;RT 345 DISCONNECT BUS 270769 / GOODI;2R 345 END

Contingency Name	Contingency Definition
COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A	CONTINGENCY 'COMED_P7_138-L1205__B-S_+_138-L1206__R-S-A' TRIP BRANCH FROM BUS 271336 TO BUS 272124 CKT 1 / DRESDEN ; B 138 ESS J339 ; B 138 TRIP BRANCH FROM BUS 271986 TO BUS 271908 CKT 1 / MAZON ; B 138 LASCO STA; B 138 TRIP BRANCH FROM BUS 272318 TO BUS 271986 CKT 1 / ESS J375 ; B 138 MAZON ; B 138 TRIP BRANCH FROM BUS 272318 TO BUS 272124 CKT 1 / ESS J375 ; B 138 ESS J339 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272124 TO BUS 272125 / ESS J339 ; B 138 ESS J339 ; R 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274837 / EQUISTAR ; B 13.8 TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 END
Base Case	
COMED_P4_012-38-L1206__	CONTINGENCY 'COMED_P4_012-38-L1206__' TRIP BRANCH FROM BUS 271187 TO BUS 271987 CKT 1 / CHANNAHON; R 138 MAZON ; R 138 TRIP BRANCH FROM BUS 271337 TO BUS 272125 CKT 1 / DRESDEN ; R 138 ESS J339 ; R 138 TRIP BRANCH FROM BUS 271987 TO BUS 936510 CKT 1 / MAZON ; R 138 AD2-066 TAP 138 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 272319 TO BUS 271187 CKT 1 / ESS J375 ; R 138 CHANNAHON; R 138 TRIP BRANCH FROM BUS 272319 TO BUS 272125 CKT 1 / ESS J375 ; R 138 ESS J339 ; R 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271566 / CHANNAHON; R 138 GOOSE LK ; B 138 MOVE 50 PERCENT LOAD FROM BUS 271187 TO BUS 271567 / CHANNAHON; R 138 GOOSE LK ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272125 TO BUS 272124 / ESS J339 ; R 138 ESS J339 ; B 138 CLOSE LINE FROM BUS 271986 TO BUS 271987 CKT 1 / MAZON ; B 138 MAZON ; R 138 DISCONNECT BUS 274836 / EQUISTAR ; R 13.8 TRIP BRANCH FROM BUS 271337 TO BUS 271336 CKT 1 / DRESDEN ; R 138 DRESDEN ; B 138 TRIP BRANCH FROM BUS 271337 TO BUS 271567 CKT 1 / DRESDEN ; R 138 GOOSE LK ; R 138 END
COMED_P7_345-L94507_B-S_+_345-L97008_R-S	CONTINGENCY 'COMED_P7_345-L94507_B-S_+_345-L97008_R-S' TRIP BRANCH FROM BUS 274750 TO BUS 255112 CKT 1 / CRETE;BP 345 17STJOHN 345 TRIP BRANCH FROM BUS 274804 TO BUS 243229 CKT 1 / UPNOR;RP 345 05OLIVE 345 END

Contingency Name	Contingency Definition
COMED_P4_155-38-L15518_	CONTINGENCY 'COMED_P4_155-38-L15518_' TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272366 TO BUS 272512 CKT 1 / R FAL; B 138 H71 ;BT 138 TRIP BRANCH FROM BUS 272512 TO BUS 937530 CKT 1 / H71 ;BT 138 AD2-214 TAP 138 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 272512 TO BUS 272514 CKT 1 / H71 ;BT 138 H71 ; B 138 MOVE 100 PERCENT LOAD FROM BUS 272514 TO BUS 272515 / H71 ; B 138 H71 ; R 138 CLOSE LINE FROM BUS 272366 TO BUS 272367 CKT 1 / R FAL; B 138 R FAL; R 138 TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 275204 CKT 1 / NELSO; B 138 NELSO;4M 138 END
COMED_P1-2_345-L11613AB-S	CONTINGENCY 'COMED_P1-2_345-L11613AB-S' TRIP BRANCH FROM BUS 270666 TO BUS 270664 CKT 1 / B ISL;BT 345 B ISL; B 345 TRIP BRANCH FROM BUS 270666 TO BUS 270926 CKT 1 / B ISL;BT 345 WILTO; B 345 TRIP BRANCH FROM BUS 270770 TO BUS 270666 CKT 1 / GOODI;4B 345 B ISL;BT 345 END
AEP_P1-2_#695A	CONTINGENCY 'AEP_P1-2_#695A' OPEN BRANCH FROM BUS 243206 TO BUS 270644 CKT 1 / 243206 05DUMONT 765 270644 WILTON ; 765 1 END
COMED_P1-2_345-L15501_B-R	CONTINGENCY 'COMED_P1-2_345-L15501_B-R' TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 END
COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A	CONTINGENCY 'COMED_P7_345-L1202__B-S_+_345-L1227__R-S-A' TRIP BRANCH FROM BUS 270716 TO BUS 930750 CKT 1 / DRESDEN ; B 345 AB1-122 TAP 345 TRIP BRANCH FROM BUS 930740 TO BUS 270717 CKT 1 / AB1-122 TAP 345 DRESDEN ; R 345 END
COMED_P7_138-L93008_R-R_+_138-L18706_R-R	CONTINGENCY 'COMED_P7_138-L93008_R-R_+_138-L18706_R-R' TRIP BRANCH FROM BUS 271018 TO BUS 272110 CKT 1 / U4-027 NORMANDY TRIP BRANCH FROM BUS 293710 TO BUS 272110 CKT 1 / O29 138 NORMA; B 138 TRIP BRANCH FROM BUS 293510 TO BUS 272111 CKT 1 / O09 OP1 138 NORMA; R 138 TRIP BRANCH FROM BUS 348962 TO BUS 272111 CKT 1 / 4KEEMIN 138 NORMANDY ; R 138 END
COMED_P1-3_TR81_LASCO_B-S	CONTINGENCY 'COMED_P1-3_TR81_LASCO_B-S' TRIP BRANCH FROM BUS 270802 TO BUS 270803 CKT 1 / LASCO STA; B 345 LASCO STA; R 345 TRIP BRANCH FROM BUS 270802 TO BUS 271908 CKT 1 / LASCO STA; B 345 LASCO STA; B 138 END
COMED_P2-2_155_NE-138B__4	CONTINGENCY 'COMED_P2-2_155_NE-138B__4' TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272094 TO BUS 275204 CKT 1 / NELSO; B 138 NELSO;4M 138 END

Contingency Name	Contingency Definition
COMED_P2-2_116_GG-345R__2_FSA	CONTINGENCY 'COMED_P2-2_116_GG-345R__2_FSA' DISCONNECT BUS 270769 / GOODI;2R 345 DISCONNECT BUS 918050 / AA1-018 TAP /ADDED FOR NO FSA CASE END
COMED_P4_937-45-BT1-4__	CONTINGENCY 'COMED_P4_937-45-BT1-4__' TRIP BRANCH FROM BUS 270828 TO BUS 274768 CKT 1 / NELSO; B 345 LEECO;BP 345 TRIP BRANCH FROM BUS 271421 TO BUS 274450 CKT 1 / EASYR; B 138 EASYR;1 34.5 TRIP BRANCH FROM BUS 271421 TO BUS 274451 CKT 1 / EASYR; B 138 EASYR;2 34.5 TRIP BRANCH FROM BUS 272528 TO BUS 271421 CKT 1 / S DIX; B 138 EASYR; B 138 TRIP BRANCH FROM BUS 274420 TO BUS 274857 CKT 1 / EASYR;1H 34.5 EASYR;U1 0.69 TRIP BRANCH FROM BUS 274421 TO BUS 274858 CKT 1 / EASYR;2H 34.5 EASYR;U2 0.69 TRIP BRANCH FROM BUS 274450 TO BUS 274420 CKT 1 / EASYR;1 34.5 EASYR;1H 34.5 TRIP BRANCH FROM BUS 274451 TO BUS 274421 CKT 1 / EASYR;2 34.5 EASYR;2H 34.5 TRIP BRANCH FROM BUS 274768 TO BUS 272528 CKT 1 / LEECO;BP 345 S DIX; B 138 REMOVE UNIT W1 FROM BUS 274857 / EASYR;U1 0.69 REMOVE UNIT W2 FROM BUS 274858 / EASYR;U2 0.69 END
COMED_P4_133-38-BT1-2__	CONTINGENCY 'COMED_P4_133-38-BT1-2__' TRIP BRANCH FROM BUS 272367 TO BUS 272515 CKT 1 / R FAL; R 138 H71 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272515 TO BUS 272514 / H71 ; R 138 H71 ; B 138 TRIP BRANCH FROM BUS 272095 TO BUS 272367 CKT 1 / NELSO; R 138 R FAL; R 138 TRIP BRANCH FROM BUS 272367 TO BUS 274244 CKT 7 / R FAL; R 138 R FAL; 34.5 END
COMED_P4_155-38-L15508_	CONTINGENCY 'COMED_P4_155-38-L15508_' TRIP BRANCH FROM BUS 271331 TO BUS 271333 CKT 1 / DIXON;8R 138 DIXON; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 271331 CKT 1 / NELSO;RT 138 DIXON;8R 138 TRIP BRANCH FROM BUS 272097 TO BUS 272095 CKT 1 / NELSO;RT 138 NELSO; R 138 TRIP BRANCH FROM BUS 272097 TO BUS 293710 CKT 1 / NELSO;RT 138 O29 138 MOVE 100 PERCENT LOAD FROM BUS 271331 TO BUS 271330 / DIXON;8R 138 DIXON;7B 138 DISCONNECT BUS 272095 / NELSO; R 138 END
COMED_P4_155-38-TR81___	CONTINGENCY 'COMED_P4_155-38-TR81___' TRIP BRANCH FROM BUS 270828 TO BUS 272094 TO BUS 275341 CKT 1 / NELSO; B 345 NELSO; B 138 NELSO;1C 34.5 TRIP BRANCH FROM BUS 272094 TO BUS 271330 CKT 1 / NELSO; B 138 DIXON;7B 138 TRIP BRANCH FROM BUS 272094 TO BUS 272366 CKT 1 / NELSO; B 138 R FAL; B 138 TRIP BRANCH FROM BUS 272094 TO BUS 275204 CKT 1 / NELSO; B 138 NELSO;4M 138 END
COMED_P1-2_138-L1352___-S	CONTINGENCY 'COMED_P1-2_138-L1352___-S' TRIP BRANCH FROM BUS 272269 TO BUS 272285 CKT 1 / POWERTON ; 138 POWERTON ;RT 138 TRIP BRANCH FROM BUS 272285 TO BUS 348908 CKT 1 / POWERTON ;RT 138 4HAVANA E 138 TRIP BRANCH FROM BUS 272285 TO BUS 349505 CKT 1 / POWERTON ;RT 138 4HUFF 138 END
AEP_P4_#2978_05DUMONT 765_B	CONTINGENCY 'AEP_P4_#2978_05DUMONT 765_B' OPEN BRANCH FROM BUS 243206 TO BUS 243207 CKT 1 / 243206 05DUMONT 765 243207 05GRNTWN 765 1 OPEN BRANCH FROM BUS 243206 TO BUS 270644 CKT 1 / 243206 05DUMONT 765 270644 WILTON ; 765 1 END

Short Circuit

No issues identified.