Generation Interconnection

Feasibility Study Report

for

Queue Project AE1-114

LANCASTER-MARYLAND

40 MW Capacity / 150 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 Ogle County, Illinois. The installed facilities will have a total capability of 150 MW with 40 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is 12/31/2021. This study does not imply a TO commitment to this in-service date.

Queue Number	**AE1-114**
Project Name	LANCASTER-MARYLAND
State	Illinois
County	Ogle
Transmission Owner	ComEd
MFO	150
MWE	150
MWC	40
Fuel	Wind
Basecase Study Year	2022

Primary Point of Interconnection

AE1-114 will interconnect with the ComEd transmission system as tap of the Maryland; B to ESS B427; 1T 138 kV line.

Cost Summary

The AE1-114 project will be responsible for the following costs:

Description	Total Cost
Attachment Facilities	$1,000,000
Direct Connection Network Upgrade	$17,000,000
Non Direct Connection Network Upgrades	$0
Total Costs	$18,000,000

In addition, the AE1-114 project may be responsible for a contribution to the following costs

Description	Total Cost
System Upgrades	$237,210,120

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

Interconnected Transmission Owner Scope of Work

Attachment Facilities

The total preliminary cost estimate for the Attachment work is given in the table below. These costs do not include CIAC Tax Gross-up.

Description	Total Cost
Installation of one 345kV line MOD, one dead-end structure and one set of revenue metering (see notes below on cost estimate)	$1,000,000
Total Attachment Facility Costs	$1,000,000

Direct Connection Cost Estimate

In order to accommodate interconnection of AE1-114, a new 138kV Interconnection Substation would need to be built close to the Maryland-Lancaster 138kV Line 11902, approximately 8 miles from Maryland.

The scope of work includes the installation of three 138kV circuit breakers in a "breaker-and-a-half" bus configuration and cutting in the Interconnection Substation to the Maryland-Lancaster 138kV Line 11902, as shown in the one-line diagram below.

The Interconnection Customer ("IC") is responsible for constructing all of the facilities on the IC side of the Point of Interconnection ("POI"). It is assumed for the purposes of this report that the IC will obtain the site for the Interconnection Substation and right-of-way between the Interconnection Substation and the 138kV transmission line.

In the event that the IC exercises the option to build the interconnecting substation, the IC will be required to construct all interconnection facilities that will be turned over to ComEd in accordance with ComEd published standards and the PJM Tariff.

ComEd would design, engineer and construct the tie in of the Interconnection Substation to the Maryland-Lancaster 138kV Line 11902.

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

Description	Total Cost
Installation of a new 138kV substation as described above	$15,000,000
Transmission line tie in work (foundations, structures, conductors)	$2,000,000
Total Direct Connection Facility Costs	$17,000,000

For Option to Build Direct Connection cost estimates:

Description	Total Cost
Installation of a new 138kV substation as described above	Interconnection Customer Responsibility
Transmission line tie in work (foundations, structures, conductors)	$2,000,000
ComEd oversight and testing	$1,000,000
Total Direct Connection Facility Costs	$3,000,000

Non-Direct Connection Cost Estimate

The integration of the new 138kV Interconnection Substation would require relay/communications/SCADA upgrades at Lancaster TSS 192 and Maryland TSS 124. The ComEd cost is given below:

Description	Total Cost
Relay/communications/SCADA upgrades at the Lancaster TSS 192 substation	$500,000
Relay/communications/SCADA upgrades at the Maryland TSS 124 substation	$500,000
Total Non-Direct Connection Facility Costs	$1,000,000

Schedule

ComEd would take approximately 24-months to construct the substation and transmission line work after the 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 IC.

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 IC and the actual costs of ComEd's work may differ significantly from these estimates. The IC 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 IC is responsible for all engineering, procurement, testing and construction of all equipment on the IC'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 of acquiring property and associated legal costs will be investigated 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 AE1-114 was evaluated as a 150 MW (Capacity 40 MW) injection tapping the Maryland; B to ESS B427; 1T 138 kV line in the ComEd area. Project AE1-114 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-114 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)

None

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
57519	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	95.84	96.15	DC	42.6
655523	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	95.84	96.15	DC	42.6
57507	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	70.28	DC	23.06
56916	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P2-2_111_EJ-138B__2	bus	331.0	77.12	78.25	DC	8.35
57326	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P4_111-38-TR82___	breaker	309.0	82.61	83.83	DC	8.35
57327	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P4_111-38-L11106_	breaker	331.0	77.12	78.25	DC	8.35
58570	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P7_138-L11106_B-R_+_345-L15502_B-R	tower	331.0	88.39	89.67	DC	9.38
57509	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	70.28	DC	23.06

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
57408	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	101.76	102.08	DC	11.52
57237	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	106.95	107.39	DC	12.79
57238	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.41	109.82	DC	12.89
57239	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	107.19	107.63	DC	12.87
57240	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	107.19	107.62	DC	12.87
654895	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	172.07	172.43	DC	19.98
58604	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	102.64	102.9	DC	45.98
58605	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	101.74	102.03	DC	46.04
656748	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	102.64	102.9	DC	45.98
656749	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	101.74	102.03	DC	46.04
57413	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	111.52	111.83	DC	16.75
57449	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P4_144-45-BT6-8__	breaker	1479.0	112.38	114.24	DC	27.06
57450	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	112.26	114.12	DC	27.06
57396	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	108.89	109.38	DC	18.18
57397	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	108.58	109.06	DC	18.33
57398	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	108.51	108.98	DC	18.27
57399	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	108.5	108.98	DC	18.27
57298	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P4_144-45-BT6-8__	breaker	1479.0	126.61	127.46	DC	27.06
57299	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	126.49	127.34	DC	27.06
57279	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	114.32	114.68	DC	11.52
655159	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	114.32	114.68	DC	11.52
57252	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	132.33	132.91	DC	20.81
57253	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-2__	breaker	1656.0	128.83	129.45	DC	22.17
57254	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-4__	breaker	1656.0	128.47	129.1	DC	22.18
57242	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	106.95	107.39	DC	12.79
57243	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.41	109.82	DC	12.89
57244	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	107.19	107.63	DC	12.87
57245	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	107.19	107.62	DC	12.87
57103	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.16	DC	21.24
57105	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.2	162.58	DC	21.69
57135	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	122.0	122.52	DC	17.94

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
57136	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	121.4	121.93	DC	18.09
57137	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	121.34	121.87	DC	18.03
57138	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	121.34	121.86	DC	18.03
57192	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.68	133.15	DC	13.96
57193	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	130.43	130.95	DC	14.07
57194	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	131.43	131.91	DC	14.06
57195	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	131.43	131.91	DC	14.06
57196	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	131.42	131.9	DC	14.05
655028	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.68	133.15	DC	13.96
655029	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	130.43	130.95	DC	14.07
655030	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	131.43	131.91	DC	14.06
655031	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	131.43	131.91	DC	14.06
655032	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	131.42	131.9	DC	14.05
57102	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.16	DC	21.24
57107	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.2	162.58	DC	21.69
57284	938860	AE1-114 TAP	CE	272598	ESS B427 ;1T	CE	1	COMED_P4_006-45-BT3-4__	breaker	215.0	100.98	132.17	DC	67.06

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
58139	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P1-2_#695A	operation	1091.0	100.46	100.78	DC	11.63
57945	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P1-2_#695A	operation	1091.0	107.18	107.61	DC	12.86
655719	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P1-2_#695A	operation	1409.0	168.5	168.87	DC	20.42

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
58195	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	104.75	105.0	DC	39.61
58196	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	95.8	96.11	DC	42.62
656248	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	104.75	105.0	DC	39.61
656249	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	95.8	96.11	DC	42.62
58138	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P1-2_#695A	operation	1441.0	110.68	111.0	DC	16.85
58163	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P1-2_345-L0626__B-R-C	operation	1479.0	111.8	113.69	DC	27.38
58166	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	Base Case	operation	1201.0	98.38	100.15	DC	20.95
58106	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P1-2_#695A	operation	1399.0	108.46	108.94	DC	18.25
58002	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P1-2_345-L0626__B-R-C	operation	1479.0	126.29	127.15	DC	27.38
58005	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	Base Case	operation	1201.0	114.07	114.88	DC	20.95
57994	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	112.86	113.22	DC	11.63
655964	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	112.86	113.22	DC	11.63
57989	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P1-2_345-L15501_B-R	operation	1656.0	128.44	129.07	DC	22.18
57990	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	Base Case	operation	1334.0	105.83	106.55	DC	21.08
57941	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P1-2_#695A	operation	1091.0	107.18	107.61	DC	12.86
58194	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P1-2_765-L11216__-S	operation	1379.0	104.61	104.85	DC	13.99
58244	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	66.75	68.15	DC	14.86
58214	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P1-2_138-L11106_B-R	operation	309.0	81.07	82.28	DC	8.29
57863	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P1-2_#695A	operation	1399.0	121.3	121.82	DC	18.01
57927	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.41	131.89	DC	14.05
655889	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.41	131.89	DC	14.05
58245	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	66.73	68.12	DC	14.86
58141	938860	AE1-114 TAP	CE	272598	ESS B427 ;1T	CE	1	COMED_P2-1_094-L11323__	operation	215.0	82.49	113.98	DC	67.71
58142	938860	AE1-114 TAP	CE	272598	ESS B427 ;1T	CE	1	COMED_P1-2_138-L11323_R-R	operation	215.0	82.49	113.98	DC	67.7

System Reinforcements

ID	Index	Facility	Upgrade Description	Cost
57240,57237,57238, 57239	6	17STJOHN 345.0 kV - ST JOHN ; T 345.0 kV Ckt 1	**CE** Description : The upgrade will be to mitigate the sag on the line. 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 : $2,600,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$2,600,000
57242,57243,57244, 57245	14	ST JOHN ; T 345.0 kV - 17GREEN_ACRE 345.0 kV Ckt 1		
57252,57253,57254	13	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 : 36.0 Months Cost : $74,200,000	$74,200,000
57449,57450	9	CHERRY VA; B 345.0 kV - GARDEN PR; R 345.0 kV Ckt 1	**CE** Description : Line conductor and station conductor upgrades, relay package 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 : 36.0 Months Cost : $34,800,000	$34,800,000
57107	20	WILTON ;4M 345.0 kV - WILTON ; 765.0 kV Ckt 1	**CE** Description : PJM network upgrade n5145: Reconfigure Wilton 765kV bus thereby allowing for 765kV L11216 (currently on Bus 6) to be relocated to Bus 8. Along with this line relocation, installation of 2-765kV BT CB's (6-8 & 8-2). The baseline project has an projected in-service date of 06/30/2019. Time Estimate : 36.0 Months Cost : $ 11,000,000	$11,000,000
57103	15	WILTON ; B 345.0 kV - WILTON ;3M 345.0 kV Ckt 1		
57102	19	WILTON ;3M 345.0 kV - WILTON ; 765.0 kV Ckt 1		
57105	16	WILTON ; R 345.0 kV - WILTON ;4M 345.0 kV Ckt 1		
57298,57299	11	GARDEN PR; R 345.0 kV - SILVER LK; R 345.0 kV Ckt 1	**CE** Description : Line conductor & station conductor upgrades, upgrade 2-345kV circuit breakers, upgrade 1-345kV line relay package.(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 : 36.0 Months Cost : $46,400,000	$46,400,000

ID	Index	Facility	Upgrade Description	Cost
57136,57137,57138, 57135	17	CRETE EC ;BP 345.0 kV - 17STJOHN 345.0 kV Ckt 1	**CE** Description : The upgrade will be to re-conductor the line and upgrade station conductor. Time Estimate : 24-30 Months Cost : $5,500,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$5,500,000
654895	7	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
57507	2	NELSON ; R 138.0 kV - NELSON ;2M 138.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 598 MVA.	$0

ID	Index	Facility	Upgrade Description	Cost
655159,57279	12	GREENACRE; T 345.0 kV - 05OLIVE 345.0 kV Ckt 1	**CE** Description : No Violation. ComEd 345kV L6615 SSTE rating is 1134 MVA. **AEP** Description : Replace ACSR/PE 1414 62/19 - Conductor Section 1. A Sag Study will be required on the 40.64 miles of 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 : $162,560	$162,560
57509	4	NELSON ;2M 138.0 kV - NELSON ; B 345.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 598 MVA.	$0
57192,57193,57194, 57195,57196,655028 ,655029,655030,655 031,655032	18	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 : $162,560	$13,962,560
57408	5	17GREEN_ACRE 345.0 kV - GREENACRE; T 345.0 kV Ckt 1	**CE** Description : No Violation. The SSTE rating is 1134 MVA. **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$0
58570,56916,57326, 57327	3	WATERMAN ; B 138.0 kV - SANDWICH ; R 138.0 kV Ckt 1	**CE** Description : No Violation. The ALDR rating is 381 MVA.	$0

ID	Index	Facility	Upgrade Description	Cost
57284	21	AE1-114 TAP 138.0 kV - ESS B427 ;1T 138.0 kV Ckt 1	**CE** Description : No Violation. ComEd 138kV L11902 SSTE rating is 404MVA.	$0
57413	8	BURNHAM ;0R 345.0 kV - 17MUNSTER 345.0 kV Ckt 1	**CE** Description : Line conductor & station conductor upgrades. (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 : 36.0 Months Cost : $9,200,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$9,200,000
655523,58604,656748,58605,656749,57519	1	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
57396,57397,57398,57399	10	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 : 30.0 Months Cost : $14,400,000	$14,400,000
			TOTAL COST	**$237,210,120**

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
656749	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	101.74	102.03	DC	46.04

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	32.21
274722	S-055 E	29.58
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	28.1
274859	EASYR;U1 E	29.17
274860	EASYR;U2 E	29.17
274888	PILOT HIL;1E	44.36
274890	CAYUG;1U E	36.12
274891	CAYUG;2U E	36.12
275149	KEMPTON ;1E	44.36
290021	O50 E	49.31
290051	GSG-6; E	28.12
290108	LEEDK;1U E	65.65
293061	N-015 E	41.27
293516	O-009 E1	23.83
293517	O-009 E2	12.1
293518	O-009 E3	13.33
293644	O22 E1	25.34
293645	O22 E2	49.19
293715	O-029 E	25.82
293716	O-029 E	14.15
293717	O-029 E	13.01
293771	O-035 E	16.52
294392	P-010 E	52.41
294401	BSHIL;1U E	22.13
294410	BSHIL;2U E	22.13
294763	P-046 E	24.91
295109	WESTBROOK E	15.05
295111	SUBLETTE E	6.88
296125	R-030 C3	9.32
296128	R-030 E3	37.3
296271	R-030 C2	9.21
296272	R-030 E2	36.85
296308	R-030 C1	9.21
296309	R-030 E1	36.85

Bus #	Bus	MW Impact
910542	X3-005 E	1.58
914641	Y2-103	118.34
915011	Y3-013 1	9.86
915021	Y3-013 2	9.86
915031	Y3-013 3	9.86
916211	Z1-072 E	12.5
916221	Z1-073 E	14.51
916502	Z1-106 E1	3.41
916504	Z1-106 E2	3.41
916512	Z1-107 E	6.53
916522	Z1-108 E	6.63
917502	Z2-087 E	48.2
918052	AA1-018 E	40.46
919221	AA1-146	46.56
919581	AA2-030	46.56
919621	AA2-039 C	5.39
919622	AA2-039 E	36.1
920272	AA2-123 E	6.51
924041	AB2-047 C O1	8.89
924042	AB2-047 E O1	59.51
924471	AB2-096	112.75
925161	AB2-173	8.3
925302	AB2-191 E	3.72
925581	AC1-033 C	3.62
925582	AC1-033 E	24.26
926311	AC1-109 1	5.22
926321	AC1-109 2	5.22
926331	AC1-110 1	5.13
926341	AC1-110 2	5.13
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	6.33
926821	AC1-168 C O1	2.99
926822	AC1-168 E O1	20.04
927091	AC1-204 1	184.51
927101	AC1-204 2	184.55
927201	AC1-214 C O1	5.3
927202	AC1-214 E O1	16.85
927451	AC1-142A 1	10.62
927461	AC1-142A 2	10.62
927511	AC1-113 1	3.17
927521	AC1-113 2	3.17
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

Bus #	Bus	MW Impact
927591	AC1-185 7	1.82
927601	AC1-185 8	1.82
930481	AB1-089	175.38
930501	AB1-091 O1	174.2
930741	AB1-122 1O1	195.19
930751	AB1-122 2O1	188.91
932881	AC2-115 1	6.33
932891	AC2-115 2	6.33
932921	AC2-116	2.22
932931	AC2-117	14.97
933341	AC2-147 C	2.31
933342	AC2-147 E	3.78
933411	AC2-154 C	6.02
933412	AC2-154 E	9.82
933431	AC2-156 C O1	2.64
933432	AC2-156 E O1	4.3
933911	AD1-013 C	4.95
933912	AD1-013 E	7.91
933931	AD1-016 C	2.48
933932	AD1-016 E	4.04
934051	AD1-031 C O1	7.36
934052	AD1-031 E O1	12.0
934101	AD1-039 1	19.13
934111	AD1-039 2	18.51
934401	AD1-064 C O1	8.57
934402	AD1-064 E O1	40.14
934431	AD1-067 C	0.35
934432	AD1-067 E	1.48
934651	AD1-096 C	2.37
934652	AD1-096 E	3.87
934701	AD1-098 C O1	18.49
934702	AD1-098 E O1	13.5
934721	AD1-100 C	51.1
934722	AD1-100 E	238.47
934871	AD1-116 C	2.36
934872	AD1-116 E	3.84
934881	AD1-117 C	14.25
934882	AD1-117 E	9.5
934971	AD1-129 C	2.41
934972	AD1-129 E	1.61
935001	AD1-133 C O1	56.03
935002	AD1-133 E O1	37.35
936291	AD2-038 C O1	5.87
936292	AD2-038 E O1	39.26
936371	AD2-047 C O1	5.39
936372	AD2-047 E O1	57.98
936461	AD2-060	6.34
936511	AD2-066 C O1	21.5
936512	AD2-066 E O1	14.33
936781	AD2-101 C	10.69
936782	AD2-101 E	50.05
936791	AD2-102 C	31.93

Bus #	Bus	MW Impact
936792	AD2-102 E	30.68
936961	AD2-130	1.41
937001	AD2-134 C	7.35
937002	AD2-134 E	30.37
937031	AD2-137 C O1	10.27
937032	AD2-137 E O1	48.06
937051	AD2-140 C O1	10.51
937052	AD2-140 E O1	49.22
937061	AD2-141 C O1	10.45
937062	AD2-141 E O1	49.28
937071	AD2-142 C O1	21.03
937072	AD2-142 E O1	98.44
937121	AD2-148 C O1	8.36
937122	AD2-148 E O1	39.16
937131	AD2-149 C O1	8.36
937132	AD2-149 E O1	39.16
937141	AD2-150 C O1	8.36
937142	AD2-150 E O1	39.16
937181	AD2-155 C O1	8.36
937182	AD2-155 E O1	39.16
937311	AD2-172 C	6.54
937312	AD2-172 E	9.03
937321	AD2-175 C	38.97
937322	AD2-175 E	25.98
937331	AD2-176 C O1	19.55
937332	AD2-176 E O1	13.03
937401	AD2-194 1	19.84
937411	AD2-194 2	19.85
937531	AD2-214 C	11.62
937532	AD2-214 E	5.47
938012	AE1-002 E O1	20.61
938511	AE1-070 1	23.31
938521	AE1-070 2	21.33
938851	AE1-113 C O1	22.31
938852	AE1-113 E O1	70.14
938861	AE1-114 C O1	9.55
938862	AE1-114 E O1	36.5
939051	AE1-134 1	3.62
939061	AE1-134 2	3.62
939321	AE1-163 C O1	14.74
939322	AE1-163 E O1	90.54
939351	AE1-166 C O1	26.3
939352	AE1-166 E O1	24.28
939401	AE1-172 C O1	16.59
939402	AE1-172 E O1	77.68
939631	AE1-193 C O1	17.98
939632	AE1-193 E O1	120.33
939681	AE1-198 C O1	53.39
939682	AE1-198 E O1	45.36
939691	AE1-199	6.43
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	23.32
939742	AE1-205 E O1	32.21
939861	AE1-222 1	215.56
939871	AE1-222 2	208.62
939921	AE1-228 C O1	27.06
939922	AE1-228 E O1	18.04
939961	AE1-233 C O1	6.29
939962	AE1-233 E O1	26.0
940101	AE1-252 C O1	28.28
940102	AE1-252 E O1	18.85
990901	L-005 E	20.34
AB2-013	AB2-013	41.13
AE1-033	AE1-033	47.76
BLUEG	BLUEG	16.6
CALDERWOOD	CALDERWOOD	0.21
CANNELTON	CANNELTON	0.24
CARR	CARR	1.95
CATAWBA	CATAWBA	0.78
CBM-S1	CBM-S1	3.58
CBM-W1	CBM-W1	77.21
CBM-W2	CBM-W2	141.69
CHEOAH	CHEOAH	0.22
CHILHOWEE	CHILHOWEE	0.06
DEARBORN	DEARBORN	6.39
ELMERSMITH	ELMERSMITH	0.25
G-007	G-007	5.48
GIBSON	GIBSON	0.07
HAMLET	HAMLET	2.97
MEC	MEC	98.4
O-066	O-066	18.45
RENSSELAER	RENSSELAER	1.54
SANTEETLA	SANTEETLA	0.07
TRIMBLE	TRIMBLE	1.97
WEC	WEC	20.97
Z1-043	Z1-043	73.98

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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
57507	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	70.28	DC	23.06

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
58570	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P7_138-L11106_B-R_+_345-L15502_B-R	tower	331.0	88.39	89.67	DC	9.38

Bus #	Bus	MW Impact
272363	ESS H440 ; R	1.03
274850	MENDOTA H;RU	0.24
274855	GSG-6 ;RU	1.0
274872	LEE DEKAL;1U	2.79
290051	GSG-6; E	26.18
290108	LEEDK;1U E	75.87
295108	WESTBROOK C	0.35
295109	WESTBROOK E	14.02
295111	SUBLETTE E	1.92
916221	Z1-073 E	13.51
925301	AB2-191 C	0.38
925302	AB2-191 E	3.47
933341	AC2-147 C	0.52
933342	AC2-147 E	0.84
933911	AD1-013 C	4.7
933912	AD1-013 E	7.51
934431	AD1-067 C	0.33
934432	AD1-067 E	1.38
934651	AD1-096 C	0.51
934652	AD1-096 E	0.84
934701	AD1-098 C O1	16.59
934702	AD1-098 E O1	12.11
934881	AD1-117 C	3.18
934882	AD1-117 E	2.12
937001	AD2-134 C	6.84
937002	AD2-134 E	28.27
938861	AE1-114 C O1	1.95
938862	AE1-114 E O1	7.44
939691	AE1-199	6.11
939921	AE1-228 C O1	26.14
939922	AE1-228 E O1	17.43
939961	AE1-233 C O1	6.56
939962	AE1-233 E O1	27.09
BLUEG	BLUEG	0.43
CARR	CARR	0.05
CBM-S1	CBM-S1	0.54
CBM-S2	CBM-S2	0.04
CBM-W1	CBM-W1	5.38
CBM-W2	CBM-W2	8.54
DEARBORN	DEARBORN	0.21

Bus #	Bus	MW Impact
G-007	G-007	0.13
GIBSON	GIBSON	0.0
MEC	MEC	8.48
O-066	O-066	0.43
RENSSELAER	RENSSELAER	0.04
TILTON	TILTON	0.0
TRIMBLE	TRIMBLE	0.05
WEC	WEC	0.67

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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
57509	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	70.28	DC	23.06

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
57408	255104	17GREEN_ACRE	NIPS	270771	GREENACRE ; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	101.76	102.08	DC	11.52

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	8.06
274722	S-055 E	7.52
274751	CRETE EC ;1U	1.93
274752	CRETE EC ;2U	1.93
274753	CRETE EC ;3U	1.93
274754	CRETE EC ;4U	1.93
274832	U4-027	7.11
274859	EASYR;U1 E	7.3
274860	EASYR;U2 E	7.3
274888	PILOT HIL;1E	12.4
274890	CAYUG;1U E	8.92
274891	CAYUG;2U E	8.92
275149	KEMPTON ;1E	12.4
290021	O50 E	12.98
290051	GSG-6; E	6.94
290108	LEEDK;1U E	16.14
293061	N-015 E	10.24
293516	O-009 E1	5.99
293517	O-009 E2	3.04
293518	O-009 E3	3.35
293644	O22 E1	7.24
293645	O22 E2	14.06
293715	O-029 E	6.47
293716	O-029 E	3.55
293717	O-029 E	3.26
294392	P-010 E	13.0
294763	P-046 E	6.23
295109	WESTBROOK E	3.72
295111	SUBLETTE E	1.72
910542	X3-005 E	0.52
914641	Y2-103	30.09
915011	Y3-013 1	2.51
915021	Y3-013 2	2.51
915031	Y3-013 3	2.51
916221	Z1-073 E	3.58
916502	Z1-106 E1	0.84
916504	Z1-106 E2	0.84
916512	Z1-107 E	1.71
916522	Z1-108 E	1.66
918052	AA1-018 E	10.62
919221	AA1-146	11.67

Bus #	Bus	MW Impact
919581	AA2-030	11.67
920272	AA2-123 E	1.63
924471	AB2-096	28.21
925161	AB2-173	2.08
925302	AB2-191 E	0.92
925881	AC1-067 O1	102.57
926311	AC1-109 1	1.27
926321	AC1-109 2	1.27
926331	AC1-110 1	1.27
926341	AC1-110 2	1.27
926351	AC1-111 1	0.51
926361	AC1-111 2	0.51
926371	AC1-111 3	0.51
926381	AC1-111 4	0.51
926391	AC1-111 5	0.51
926401	AC1-111 6	0.51
926431	AC1-114	1.58
926821	AC1-168 C O1	0.76
926822	AC1-168 E O1	5.08
927091	AC1-204 1	48.76
927101	AC1-204 2	48.73
927201	AC1-214 C O1	0.74
927202	AC1-214 E O1	2.34
927451	AC1-142A 1	2.83
927461	AC1-142A 2	2.83
927511	AC1-113 1	0.79
927521	AC1-113 2	0.79
927531	AC1-185 1	0.46
927541	AC1-185 2	0.46
927551	AC1-185 3	0.46
927561	AC1-185 4	0.46
927571	AC1-185 5	0.46
927581	AC1-185 6	0.46
927591	AC1-185 7	0.46
927601	AC1-185 8	0.46
930481	AB1-089	43.76
930501	AB1-091 O1	49.15
930741	AB1-122 1O1	47.58
930751	AB1-122 2O1	49.75
932881	AC2-115 1	1.58
932891	AC2-115 2	1.58
932921	AC2-116	0.55
933341	AC2-147 C	0.58
933342	AC2-147 E	0.94
933411	AC2-154 C	1.68
933412	AC2-154 E	2.75
933431	AC2-156 C O1	0.64
933432	AC2-156 E O1	1.04
933911	AD1-013 C	1.22
933912	AD1-013 E	1.95
933931	AD1-016 C	0.62
933932	AD1-016 E	1.01

Bus #	Bus	MW Impact
934101	AD1-039 1	4.66
934111	AD1-039 2	4.88
934401	AD1-064 C O1	2.13
934402	AD1-064 E O1	9.99
934431	AD1-067 C	0.09
934432	AD1-067 E	0.37
934651	AD1-096 C	0.59
934652	AD1-096 E	0.97
934701	AD1-098 C O1	4.57
934702	AD1-098 E O1	3.34
934721	AD1-100 C	12.94
934722	AD1-100 E	60.39
934871	AD1-116 C	0.62
934872	AD1-116 E	1.01
934881	AD1-117 C	3.57
934882	AD1-117 E	2.38
934971	AD1-129 C	0.6
934972	AD1-129 E	0.4
935001	AD1-133 C O1	13.73
935002	AD1-133 E O1	9.15
936291	AD2-038 C O1	1.54
936292	AD2-038 E O1	10.32
936371	AD2-047 C O1	1.51
936372	AD2-047 E O1	16.21
936461	AD2-060	1.77
936511	AD2-066 C O1	5.56
936512	AD2-066 E O1	3.71
936781	AD2-101 C	3.17
936782	AD2-101 E	14.84
936791	AD2-102 C	8.0
936792	AD2-102 E	7.69
936961	AD2-130	0.38
937001	AD2-134 C	1.82
937002	AD2-134 E	7.5
937031	AD2-137 C O1	2.31
937032	AD2-137 E O1	10.8
937051	AD2-140 C O1	2.32
937052	AD2-140 E O1	10.87
937061	AD2-141 C O1	2.31
937062	AD2-141 E O1	10.88
937071	AD2-142 C O1	4.64
937072	AD2-142 E O1	21.73
937121	AD2-148 C O1	2.36
937122	AD2-148 E O1	11.04
937131	AD2-149 C O1	2.36
937132	AD2-149 E O1	11.04
937141	AD2-150 C O1	2.36
937142	AD2-150 E O1	11.04
937181	AD2-155 C O1	2.36
937182	AD2-155 E O1	11.04
937311	AD2-172 C	1.64
937312	AD2-172 E	2.26

Bus #	Bus	MW Impact
937321	AD2-175 C	10.99
937322	AD2-175 E	7.33
937331	AD2-176 C O1	4.89
937332	AD2-176 E O1	3.26
937401	AD2-194 1	5.24
937411	AD2-194 2	5.24
937531	AD2-214 C	2.92
937532	AD2-214 E	1.37
938012	AE1-002 E O1	4.63
938511	AE1-070 1	6.16
938521	AE1-070 2	5.63
938851	AE1-113 C O1	5.88
938852	AE1-113 E O1	18.47
938861	AE1-114 C O1	2.39
938862	AE1-114 E O1	9.13
939051	AE1-134 1	0.91
939061	AE1-134 2	0.91
939321	AE1-163 C O1	3.87
939322	AE1-163 E O1	23.79
939351	AE1-166 C O1	6.84
939352	AE1-166 E O1	6.31
939401	AE1-172 C O1	4.1
939402	AE1-172 E O1	19.18
939641	AE1-194 C	10.88
939642	AE1-194 E	72.84
939651	AE1-195 C	10.88
939652	AE1-195 E	72.84
939691	AE1-199	1.59
939701	AE1-201 C	1.34
939702	AE1-201 E	0.29
939732	AE1-204 E	0.2
939861	AE1-222 1	52.55
939871	AE1-222 2	54.95
939921	AE1-228 C O1	6.68
939922	AE1-228 E O1	4.45
939961	AE1-233 C O1	1.55
939962	AE1-233 E O1	6.39
940101	AE1-252 C O1	6.98
940102	AE1-252 E O1	4.65
951721	J643	15.51
952581	J740 C	3.4
952582	J740 E	18.42
953871	J847	8.38
AB2-013	AB2-013	10.64
AE1-033	AE1-033	12.03
BLUEG	BLUEG	2.86
CANNELTON	CANNELTON	0.0
CARR	CARR	0.5
CATAWBA	CATAWBA	0.16
CBM-S1	CBM-S1	1.36
CBM-W1	CBM-W1	19.98
CBM-W2	CBM-W2	38.44

Bus #	Bus	MW Impact
CIN	CIN	0.12
DEARBORN	DEARBORN	2.29
G-007	G-007	1.38
HAMLET	HAMLET	0.65
MEC	MEC	25.05
O-066	O-066	4.65
RENSSELAER	RENSSELAER	0.39
SANTEETLA	SANTEETLA	0.0
TRIMBLE	TRIMBLE	0.34
WEC	WEC	5.32
Z1-043	Z1-043	18.82

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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
57238	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.41	109.82	DC	12.89

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.04
274654	BRAIDWOOD;1U	19.05
274655	BRAIDWOOD;2U	18.24
274661	LASCO STA;2U	17.6
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.88
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.88
274722	S-055 E	8.45
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274859	EASYR;U1 E	8.17
274860	EASYR;U2 E	8.17
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.74
274891	CAYUG;2U E	9.74
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.78
290108	LEEDK;1U E	18.09
293061	N-015 E	11.61
293516	O-009 E1	6.69
293517	O-009 E2	3.4
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.24
293716	O-029 E	3.97
293717	O-029 E	3.65
294392	P-010 E	14.75
294763	P-046 E	6.98
295109	WESTBROOK E	4.16
295111	SUBLETTE E	1.92
914641	Y2-103	33.8
915011	Y3-013 1	2.82

Bus #	Bus	MW Impact
915021	Y3-013 2	2.82
915031	Y3-013 3	2.82
916221	Z1-073 E	4.01
916502	Z1-106 E1	0.94
916504	Z1-106 E2	0.94
916512	Z1-107 E	1.85
916522	Z1-108 E	1.86
918052	AA1-018 E	11.64
919221	AA1-146	13.04
919581	AA2-030	13.04
920272	AA2-123 E	1.83
924471	AB2-096	31.63
925161	AB2-173	2.33
925302	AB2-191 E	1.03
926311	AC1-109 1	1.42
926321	AC1-109 2	1.42
926331	AC1-110 1	1.42
926341	AC1-110 2	1.42
926351	AC1-111 1	0.57
926361	AC1-111 2	0.57
926371	AC1-111 3	0.57
926381	AC1-111 4	0.57
926391	AC1-111 5	0.57
926401	AC1-111 6	0.57
926431	AC1-114	1.77
926821	AC1-168 C O1	0.85
926822	AC1-168 E O1	5.68
927091	AC1-204 1	55.19
927101	AC1-204 2	55.12
927451	AC1-142A 1	3.2
927461	AC1-142A 2	3.2
927511	AC1-113 1	0.89
927521	AC1-113 2	0.89
927531	AC1-185 1	0.51
927541	AC1-185 2	0.51
927551	AC1-185 3	0.51
927561	AC1-185 4	0.51
927571	AC1-185 5	0.51
927581	AC1-185 6	0.51
927591	AC1-185 7	0.51
927601	AC1-185 8	0.51
930481	AB1-089	49.05
930501	AB1-091 O1	50.61
930741	AB1-122 1O1	52.99
930751	AB1-122 2O1	56.33
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.06
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84

Bus #	Bus	MW Impact
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.19
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.19
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.2
934431	AD1-067 C	0.1
934432	AD1-067 E	0.41
934651	AD1-096 C	0.66
934652	AD1-096 E	1.08
934701	AD1-098 C O1	5.12
934702	AD1-098 E O1	3.74
934721	AD1-100 C	14.27
934722	AD1-100 E	66.6
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.99
934882	AD1-117 E	2.66
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.16
935002	AD1-133 E O1	10.11
936291	AD2-038 C O1	1.71
936292	AD2-038 E O1	11.45
936371	AD2-047 C O1	1.56
936372	AD2-047 E O1	16.75
936461	AD2-060	1.83
936511	AD2-066 C O1	6.19
936512	AD2-066 E O1	4.13
936781	AD2-101 C	3.09
936782	AD2-101 E	14.46
936791	AD2-102 C	8.96
936792	AD2-102 E	8.61
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.4
937031	AD2-137 C O1	2.44
937032	AD2-137 E O1	11.43
937051	AD2-140 C O1	2.44
937052	AD2-140 E O1	11.42
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.44
937071	AD2-142 C O1	4.88
937072	AD2-142 E O1	22.85
937121	AD2-148 C O1	2.43
937122	AD2-148 E O1	11.37
937131	AD2-149 C O1	2.43
937132	AD2-149 E O1	11.37

Bus #	Bus	MW Impact
937141	AD2-150 C O1	2.43
937142	AD2-150 E O1	11.37
937181	AD2-155 C O1	2.43
937182	AD2-155 E O1	11.37
937311	AD2-172 C	1.83
937312	AD2-172 E	2.53
937321	AD2-175 C	11.32
937322	AD2-175 E	7.55
937331	AD2-176 C O1	5.48
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	0.8
937532	AD2-214 E	0.38
938012	AE1-002 E O1	4.9
938511	AE1-070 1	6.97
938521	AE1-070 2	6.37
938851	AE1-113 C O1	6.63
938852	AE1-113 E O1	20.84
938861	AE1-114 C O1	2.67
938862	AE1-114 E O1	10.22
939051	AE1-134 1	1.01
939061	AE1-134 2	1.01
939321	AE1-163 C O1	4.3
939322	AE1-163 E O1	26.41
939351	AE1-166 C O1	7.6
939352	AE1-166 E O1	7.02
939401	AE1-172 C O1	4.47
939402	AE1-172 E O1	20.95
939641	AE1-194 C	18.96
939642	AE1-194 E	126.86
939651	AE1-195 C	18.96
939652	AE1-195 E	126.86
939691	AE1-199	1.78
939701	AE1-201 C	1.5
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.52
939871	AE1-222 2	62.2
939921	AE1-228 C O1	7.48
939922	AE1-228 E O1	4.99
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.16
940101	AE1-252 C O1	7.63
940102	AE1-252 E O1	5.08
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.47
BLUEG	BLUEG	5.05
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23

Bus #	Bus	MW Impact
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.04
CBM-W2	CBM-W2	37.14
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.14
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.58
O-066	O-066	5.3
RENSSELAER	RENSSELAER	0.45
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.97
Z1-043	Z1-043	20.98

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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
654895	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	172.07	172.43	DC	19.98

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
57413	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	111.52	111.83	DC	16.75

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	11.75
274722	S-055 E	10.96
274723	RIVER EC ;12	4.32
274792	SE CHICAG;9U	0.96
274793	SE CHICAG;0U	0.96
274794	SE CHICAG;1U	0.96
274795	SE CHICAG;2U	0.96
274832	U4-027	10.31
274859	EASYR;U1 E	10.61
274860	EASYR;U2 E	10.61
274888	PILOT HIL;1E	20.48
274890	CAYUG;1U E	13.4
274891	CAYUG;2U E	13.4
275149	KEMPTON ;1E	20.48
290021	O50 E	18.57
290051	GSG-6; E	10.13
290108	LEEDK;1U E	23.57
293061	N-015 E	14.82
293516	O-009 E1	8.7
293517	O-009 E2	4.42
293518	O-009 E3	4.87
293644	O22 E1	9.26
293645	O22 E2	17.98
293715	O-029 E	9.4
293716	O-029 E	5.15
293717	O-029 E	4.74
293771	O-035 E	6.09
294392	P-010 E	18.82
294763	P-046 E	9.07
295109	WESTBROOK E	5.42
295111	SUBLETTE E	2.5
296125	R-030 C3	3.43
296128	R-030 E3	13.71
296271	R-030 C2	3.39
296272	R-030 E2	13.54
296308	R-030 C1	3.39
296309	R-030 E1	13.54
910541	X3-005 C	0.08
910542	X3-005 E	0.91
914641	Y2-103	43.82
915011	Y3-013 1	3.65

Bus #	Bus	MW Impact
915021	Y3-013 2	3.65
915031	Y3-013 3	3.65
916211	Z1-072 E	4.61
916221	Z1-073 E	5.23
916502	Z1-106 E1	1.23
916504	Z1-106 E2	1.23
916512	Z1-107 E	2.58
916522	Z1-108 E	2.42
917502	Z2-087 E	8.96
918052	AA1-018 E	16.81
919221	AA1-146	16.93
919581	AA2-030	16.93
920272	AA2-123 E	2.37
924471	AB2-096	41.11
925161	AB2-173	3.02
925302	AB2-191 E	1.34
925881	AC1-067 O1	301.08
926311	AC1-109 1	1.86
926321	AC1-109 2	1.86
926331	AC1-110 1	1.85
926341	AC1-110 2	1.85
926351	AC1-111 1	0.75
926361	AC1-111 2	0.75
926371	AC1-111 3	0.75
926381	AC1-111 4	0.75
926391	AC1-111 5	0.75
926401	AC1-111 6	0.75
926431	AC1-114	2.31
926821	AC1-168 C O1	1.1
926822	AC1-168 E O1	7.36
927091	AC1-204 1	70.09
927101	AC1-204 2	70.14
927201	AC1-214 C O1	1.95
927202	AC1-214 E O1	6.21
927451	AC1-142A 1	4.09
927461	AC1-142A 2	4.09
927511	AC1-113 1	1.15
927521	AC1-113 2	1.15
927531	AC1-185 1	0.66
927541	AC1-185 2	0.66
927551	AC1-185 3	0.66
927561	AC1-185 4	0.66
927571	AC1-185 5	0.66
927581	AC1-185 6	0.66
927591	AC1-185 7	0.66
927601	AC1-185 8	0.66
930481	AB1-089	63.73
930501	AB1-091 O1	82.27
930741	AB1-122 1O1	70.02
930751	AB1-122 2O1	70.99
932881	AC2-115 1	2.31
932891	AC2-115 2	2.31

Bus #	Bus	MW Impact
932921	AC2-116	0.81
932931	AC2-117	5.3
933341	AC2-147 C	0.84
933342	AC2-147 E	1.37
933411	AC2-154 C	2.78
933412	AC2-154 E	4.53
933431	AC2-156 C O1	0.93
933432	AC2-156 E O1	1.52
933911	AD1-013 C	1.78
933912	AD1-013 E	2.85
933931	AD1-016 C	0.9
933932	AD1-016 E	1.47
934101	AD1-039 1	6.86
934111	AD1-039 2	6.96
934401	AD1-064 C O1	3.11
934402	AD1-064 E O1	14.56
934431	AD1-067 C	0.13
934432	AD1-067 E	0.53
934651	AD1-096 C	0.86
934652	AD1-096 E	1.41
934701	AD1-098 C O1	6.66
934702	AD1-098 E O1	4.86
934721	AD1-100 C	19.54
934722	AD1-100 E	91.19
934871	AD1-116 C	0.98
934872	AD1-116 E	1.6
934881	AD1-117 C	5.18
934882	AD1-117 E	3.46
934971	AD1-129 C	0.88
934972	AD1-129 E	0.58
935001	AD1-133 C O1	20.3
935002	AD1-133 E O1	13.53
936291	AD2-038 C O1	2.33
936292	AD2-038 E O1	15.58
936371	AD2-047 C O1	2.49
936372	AD2-047 E O1	26.77
936461	AD2-060	2.93
936511	AD2-066 C O1	8.14
936512	AD2-066 E O1	5.43
936781	AD2-101 C	4.75
936782	AD2-101 E	22.22
936791	AD2-102 C	11.64
936792	AD2-102 E	11.19
936961	AD2-130	0.56
937001	AD2-134 C	2.65
937002	AD2-134 E	10.94
937031	AD2-137 C O1	3.67
937032	AD2-137 E O1	17.17
937051	AD2-140 C O1	3.72
937052	AD2-140 E O1	17.42
937061	AD2-141 C O1	3.7
937062	AD2-141 E O1	17.44

Bus #	Bus	MW Impact
937071	AD2-142 C O1	7.44
937072	AD2-142 E O1	34.83
937121	AD2-148 C O1	3.94
937122	AD2-148 E O1	18.43
937131	AD2-149 C O1	3.94
937132	AD2-149 E O1	18.43
937141	AD2-150 C O1	3.94
937142	AD2-150 E O1	18.43
937181	AD2-155 C O1	3.94
937182	AD2-155 E O1	18.43
937311	AD2-172 C	2.38
937312	AD2-172 E	3.29
937321	AD2-175 C	18.34
937322	AD2-175 E	12.23
937331	AD2-176 C O1	7.12
937332	AD2-176 E O1	4.75
937401	AD2-194 1	7.54
937411	AD2-194 2	7.54
937531	AD2-214 C	4.24
937532	AD2-214 E	1.99
938012	AE1-002 E O1	7.36
938511	AE1-070 1	8.86
938521	AE1-070 2	8.11
938851	AE1-113 C O1	8.4
938852	AE1-113 E O1	26.41
938861	AE1-114 C O1	3.47
938862	AE1-114 E O1	13.28
939051	AE1-134 1	1.32
939061	AE1-134 2	1.32
939321	AE1-163 C O1	5.85
939322	AE1-163 E O1	35.94
939351	AE1-166 C O1	10.23
939352	AE1-166 E O1	9.45
939401	AE1-172 C O1	6.18
939402	AE1-172 E O1	28.94
939691	AE1-199	2.32
939701	AE1-201 C	1.95
939702	AE1-201 E	0.43
939732	AE1-204 E	0.28
939741	AE1-205 C O1	8.57
939742	AE1-205 E O1	11.84
939861	AE1-222 1	77.33
939871	AE1-222 2	78.4
939921	AE1-228 C O1	9.74
939922	AE1-228 E O1	6.49
939961	AE1-233 C O1	2.26
939962	AE1-233 E O1	9.34
940101	AE1-252 C O1	10.54
940102	AE1-252 E O1	7.02
AB2-013	AB2-013	15.32
AE1-033	AE1-033	17.49
BLUEG	BLUEG	5.47

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.06
CANNELTON	CANNELTON	0.08
CARR	CARR	0.73
CATAWBA	CATAWBA	0.27
CBM-S1	CBM-S1	1.44
CBM-W1	CBM-W1	23.88
CBM-W2	CBM-W2	51.81
CHEOAH	CHEOAH	0.06
CHILHOWEE	CHILHOWEE	0.02
DEARBORN	DEARBORN	2.93
ELMERSMITH	ELMERSMITH	0.08
G-007	G-007	2.03
GIBSON	GIBSON	0.04
HAMLET	HAMLET	1.05
MEC	MEC	36.09
O-066	O-066	6.84
RENSSELAER	RENSSELAER	0.58
SANTEETLA	SANTEETLA	0.02
TRIMBLE	TRIMBLE	0.65
WEC	WEC	7.74
Z1-043	Z1-043	27.27

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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
57450	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	112.26	114.12	DC	27.06

Bus #	Bus	MW Impact
274656	BYRON ;1U	46.39
274657	BYRON ;2U	45.43
274765	LEE CO EC;6U	2.17
274822	ROCKFORD ;11	3.97
274823	ROCKFORD ;21	4.07
274824	ROCKFORD ;12	3.93
274856	ECOGROVE ;U1	0.65
274859	EASYR;U1 E	17.08
274860	EASYR;U2 E	17.08
290051	GSG-6; E	8.84
290108	LEEDK;1U E	17.56
290266	R-018	0.24
293516	O-009 E1	8.41
293517	O-009 E2	4.27
293518	O-009 E3	4.71
293715	O-029 E	10.61
293716	O-029 E	5.82
293717	O-029 E	5.34
294763	P-046 E	16.98
295109	WESTBROOK E	4.73
295111	SUBLETTE E	3.1
907361	X1-087	0.5
916221	Z1-073 E	4.56
916522	Z1-108 E	2.09
919221	AA1-146	20.14
919581	AA2-030	20.14
925161	AB2-173	3.59
925302	AB2-191 E	1.17
926431	AC1-114	4.92
927511	AC1-113 1	2.46
927521	AC1-113 2	2.46
927531	AC1-185 1	1.07
927541	AC1-185 2	1.07
927551	AC1-185 3	1.07
927561	AC1-185 4	1.07
927571	AC1-185 5	1.07
927581	AC1-185 6	1.07
927591	AC1-185 7	1.07
927601	AC1-185 8	1.07
930481	AB1-089	139.46
932881	AC2-115 1	4.92

Bus #	Bus	MW Impact
932891	AC2-115 2	4.92
932921	AC2-116	1.72
933341	AC2-147 C	1.24
933342	AC2-147 E	2.03
933911	AD1-013 C	1.54
933912	AD1-013 E	2.46
934401	AD1-064 C O1	6.69
934402	AD1-064 E O1	31.34
934431	AD1-067 C	0.11
934432	AD1-067 E	0.47
934651	AD1-096 C	1.62
934652	AD1-096 E	2.65
934701	AD1-098 C O1	5.94
934702	AD1-098 E O1	4.34
934881	AD1-117 C	7.65
934882	AD1-117 E	5.1
934971	AD1-129 C	1.29
934972	AD1-129 E	0.86
936791	AD2-102 C	24.01
936792	AD2-102 E	23.07
937001	AD2-134 C	2.31
937002	AD2-134 E	9.55
937311	AD2-172 C	4.46
937312	AD2-172 E	6.15
937531	AD2-214 C	4.55
937532	AD2-214 E	2.14
938861	AE1-114 C O1	5.61
938862	AE1-114 E O1	21.45
939051	AE1-134 1	1.56
939061	AE1-134 2	1.56
939691	AE1-199	2.0
939921	AE1-228 C O1	8.31
939922	AE1-228 E O1	5.54
939961	AE1-233 C O1	1.91
939962	AE1-233 E O1	7.9
950081	J384	2.65
950101	J390	84.74
950142	J395 E	9.13
952431	J760	5.35
952511	J584 C	1.07
952512	J584 E	5.79
953111	J807 C	0.6
953112	J807 E	3.25
953681	J818	14.31
953691	J819 C	1.51
953692	J819 E	8.14
953731	J825 C	1.71
953732	J825 E	9.27
953901	J850	21.09
954001	J864	4.45
AE1-033	AE1-033	23.4
BLUEG	BLUEG	1.78

Bus #	Bus	MW Impact
CANNELTON	CANNELTON	0.02
CARR	CARR	0.17
CATAWBA	CATAWBA	0.0
CBM-S1	CBM-S1	1.46
CBM-S2	CBM-S2	0.0
CBM-W1	CBM-W1	17.68
CBM-W2	CBM-W2	24.71
DEARBORN	DEARBORN	0.74
ELMERSMITH	ELMERSMITH	0.0
G-007	G-007	0.48
GIBSON	GIBSON	0.04
HAMLET	HAMLET	0.07
MEC	MEC	27.49
O-066	O-066	1.61
RENSSELAER	RENSSELAER	0.14
TILTON	TILTON	0.12
TRIMBLE	TRIMBLE	0.21
WEC	WEC	0.44

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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
57397	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	108.58	109.06	DC	18.33

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	9.45
938852	AE1-113 E O1	29.72
938861	AE1-114 C O1	3.8
938862	AE1-114 E O1	14.53
939051	AE1-134 1	1.44
939061	AE1-134 2	1.44
939321	AE1-163 C O1	6.07
939322	AE1-163 E O1	37.28
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	10.68
940102	AE1-252 E O1	7.12

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
57299	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	126.49	127.34	DC	27.06

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	48.94
274656	BYRON ;1U	46.39
274657	BYRON ;2U	45.43
274822	ROCKFORD ;11	3.97
274823	ROCKFORD ;21	4.07
274824	ROCKFORD ;12	3.93
274859	EASYR;U1 E	17.08
274860	EASYR;U2 E	17.08
290051	GSG-6; E	8.84
290108	LEEDK;1U E	17.56
290266	R-018	0.24
293516	O-009 E1	8.41
293517	O-009 E2	4.27
293518	O-009 E3	4.71
293715	O-029 E	10.61
293716	O-029 E	5.82
293717	O-029 E	5.34
294763	P-046 E	16.98
295109	WESTBROOK E	4.73
295111	SUBLETTE E	3.1
916221	Z1-073 E	4.56
916522	Z1-108 E	2.09
919221	AA1-146	20.14
919581	AA2-030	20.14
924471	AB2-096	171.28
925161	AB2-173	3.59
925302	AB2-191 E	1.17
926431	AC1-114	4.92
927511	AC1-113 1	2.46
927521	AC1-113 2	2.46
927531	AC1-185 1	1.07
927541	AC1-185 2	1.07
927551	AC1-185 3	1.07
927561	AC1-185 4	1.07
927571	AC1-185 5	1.07
927581	AC1-185 6	1.07
927591	AC1-185 7	1.07
927601	AC1-185 8	1.07
930481	AB1-089	139.46
932881	AC2-115 1	4.92
932891	AC2-115 2	4.92

Bus #	Bus	MW Impact
932921	AC2-116	1.72
933341	AC2-147 C	1.24
933342	AC2-147 E	2.03
933911	AD1-013 C	1.54
933912	AD1-013 E	2.46
934401	AD1-064 C O1	6.69
934402	AD1-064 E O1	31.34
934431	AD1-067 C	0.11
934432	AD1-067 E	0.47
934651	AD1-096 C	1.62
934652	AD1-096 E	2.65
934701	AD1-098 C O1	5.94
934702	AD1-098 E O1	4.34
934881	AD1-117 C	7.65
934882	AD1-117 E	5.1
934971	AD1-129 C	1.29
934972	AD1-129 E	0.86
936791	AD2-102 C	24.01
936792	AD2-102 E	23.07
937001	AD2-134 C	2.31
937002	AD2-134 E	9.55
937311	AD2-172 C	4.46
937312	AD2-172 E	6.15
937531	AD2-214 C	4.55
937532	AD2-214 E	2.14
938861	AE1-114 C O1	5.61
938862	AE1-114 E O1	21.45
939051	AE1-134 1	1.56
939061	AE1-134 2	1.56
939691	AE1-199	2.0
939921	AE1-228 C O1	8.31
939922	AE1-228 E O1	5.54
939961	AE1-233 C O1	1.91
939962	AE1-233 E O1	7.9
950081	J384	2.65
950101	J390	84.74
950142	J395 E	9.13
952431	J760	5.35
952511	J584 C	1.07
952512	J584 E	5.79
953111	J807 C	0.6
953112	J807 E	3.25
953681	J818	14.31
953691	J819 C	1.51
953692	J819 E	8.14
953731	J825 C	1.71
953732	J825 E	9.27
953901	J850	21.09
954001	J864	4.45
AE1-033	AE1-033	23.4
BLUEG	BLUEG	1.78
CANNELTON	CANNELTON	0.02

Bus #	Bus	MW Impact
CARR	CARR	0.17
CATAWBA	CATAWBA	0.0
CBM-S1	CBM-S1	1.46
CBM-S2	CBM-S2	0.0
CBM-W1	CBM-W1	17.68
CBM-W2	CBM-W2	24.71
DEARBORN	DEARBORN	0.74
ELMERSMITH	ELMERSMITH	0.0
G-007	G-007	0.48
GIBSON	GIBSON	0.04
HAMLET	HAMLET	0.07
MEC	MEC	27.49
O-066	O-066	1.61
RENSSELAER	RENSSELAER	0.14
TILTON	TILTON	0.12
TRIMBLE	TRIMBLE	0.21
WEC	WEC	0.44

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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
655159	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	114.32	114.68	DC	11.52

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	8.06
274722	S-055 E	7.52
274751	CRETE EC ;1U	1.93
274752	CRETE EC ;2U	1.93
274753	CRETE EC ;3U	1.93
274754	CRETE EC ;4U	1.93
274832	U4-027	7.11
274859	EASYR;U1 E	7.3
274860	EASYR;U2 E	7.3
274888	PILOT HIL;1E	12.4
274890	CAYUG;1U E	8.92
274891	CAYUG;2U E	8.92
275149	KEMPTON ;1E	12.4
290021	O50 E	12.98
290051	GSG-6; E	6.94
290108	LEEDK;1U E	16.14
293061	N-015 E	10.24
293516	O-009 E1	5.99
293517	O-009 E2	3.04
293518	O-009 E3	3.35
293644	O22 E1	7.24
293645	O22 E2	14.06
293715	O-029 E	6.47
293716	O-029 E	3.55
293717	O-029 E	3.26
294392	P-010 E	13.0
294763	P-046 E	6.23
295109	WESTBROOK E	3.72
295111	SUBLETTE E	1.72
910542	X3-005 E	0.52
914641	Y2-103	30.09
915011	Y3-013 1	2.51
915021	Y3-013 2	2.51
915031	Y3-013 3	2.51
916221	Z1-073 E	3.58
916502	Z1-106 E1	0.84
916504	Z1-106 E2	0.84
916512	Z1-107 E	1.71
916522	Z1-108 E	1.66
918052	AA1-018 E	10.62
919221	AA1-146	11.67

Bus #	Bus	MW Impact
919581	AA2-030	11.67
920272	AA2-123 E	1.63
924471	AB2-096	28.21
925161	AB2-173	2.08
925302	AB2-191 E	0.92
925881	AC1-067 O1	102.57
926311	AC1-109 1	1.27
926321	AC1-109 2	1.27
926331	AC1-110 1	1.27
926341	AC1-110 2	1.27
926351	AC1-111 1	0.51
926361	AC1-111 2	0.51
926371	AC1-111 3	0.51
926381	AC1-111 4	0.51
926391	AC1-111 5	0.51
926401	AC1-111 6	0.51
926431	AC1-114	1.58
926821	AC1-168 C O1	0.76
926822	AC1-168 E O1	5.08
927091	AC1-204 1	48.76
927101	AC1-204 2	48.73
927201	AC1-214 C O1	0.74
927202	AC1-214 E O1	2.34
927451	AC1-142A 1	2.83
927461	AC1-142A 2	2.83
927511	AC1-113 1	0.79
927521	AC1-113 2	0.79
927531	AC1-185 1	0.46
927541	AC1-185 2	0.46
927551	AC1-185 3	0.46
927561	AC1-185 4	0.46
927571	AC1-185 5	0.46
927581	AC1-185 6	0.46
927591	AC1-185 7	0.46
927601	AC1-185 8	0.46
930481	AB1-089	43.76
930501	AB1-091 O1	49.15
930741	AB1-122 1O1	47.58
930751	AB1-122 2O1	49.75
932881	AC2-115 1	1.58
932891	AC2-115 2	1.58
932921	AC2-116	0.55
933341	AC2-147 C	0.58
933342	AC2-147 E	0.94
933411	AC2-154 C	1.68
933412	AC2-154 E	2.75
933431	AC2-156 C O1	0.64
933432	AC2-156 E O1	1.04
933911	AD1-013 C	1.22
933912	AD1-013 E	1.95
933931	AD1-016 C	0.62
933932	AD1-016 E	1.01

Bus #	Bus	MW Impact
934101	AD1-039 1	4.66
934111	AD1-039 2	4.88
934401	AD1-064 C O1	2.13
934402	AD1-064 E O1	9.99
934431	AD1-067 C	0.09
934432	AD1-067 E	0.37
934651	AD1-096 C	0.59
934652	AD1-096 E	0.97
934701	AD1-098 C O1	4.57
934702	AD1-098 E O1	3.34
934721	AD1-100 C	12.94
934722	AD1-100 E	60.39
934871	AD1-116 C	0.62
934872	AD1-116 E	1.01
934881	AD1-117 C	3.57
934882	AD1-117 E	2.38
934971	AD1-129 C	0.6
934972	AD1-129 E	0.4
935001	AD1-133 C O1	13.73
935002	AD1-133 E O1	9.15
936291	AD2-038 C O1	1.54
936292	AD2-038 E O1	10.32
936371	AD2-047 C O1	1.51
936372	AD2-047 E O1	16.21
936461	AD2-060	1.77
936511	AD2-066 C O1	5.56
936512	AD2-066 E O1	3.71
936781	AD2-101 C	3.17
936782	AD2-101 E	14.84
936791	AD2-102 C	8.0
936792	AD2-102 E	7.69
936961	AD2-130	0.38
937001	AD2-134 C	1.82
937002	AD2-134 E	7.5
937031	AD2-137 C O1	2.31
937032	AD2-137 E O1	10.8
937051	AD2-140 C O1	2.32
937052	AD2-140 E O1	10.87
937061	AD2-141 C O1	2.31
937062	AD2-141 E O1	10.88
937071	AD2-142 C O1	4.64
937072	AD2-142 E O1	21.73
937121	AD2-148 C O1	2.36
937122	AD2-148 E O1	11.04
937131	AD2-149 C O1	2.36
937132	AD2-149 E O1	11.04
937141	AD2-150 C O1	2.36
937142	AD2-150 E O1	11.04
937181	AD2-155 C O1	2.36
937182	AD2-155 E O1	11.04
937311	AD2-172 C	1.64
937312	AD2-172 E	2.26

Bus #	Bus	MW Impact
937321	AD2-175 C	10.99
937322	AD2-175 E	7.33
937331	AD2-176 C O1	4.89
937332	AD2-176 E O1	3.26
937401	AD2-194 1	5.24
937411	AD2-194 2	5.24
937531	AD2-214 C	2.92
937532	AD2-214 E	1.37
938012	AE1-002 E O1	4.63
938511	AE1-070 1	6.16
938521	AE1-070 2	5.63
938851	AE1-113 C O1	5.88
938852	AE1-113 E O1	18.47
938861	AE1-114 C O1	2.39
938862	AE1-114 E O1	9.13
939051	AE1-134 1	0.91
939061	AE1-134 2	0.91
939321	AE1-163 C O1	3.87
939322	AE1-163 E O1	23.79
939351	AE1-166 C O1	6.84
939352	AE1-166 E O1	6.31
939401	AE1-172 C O1	4.1
939402	AE1-172 E O1	19.18
939641	AE1-194 C	10.88
939642	AE1-194 E	72.84
939651	AE1-195 C	10.88
939652	AE1-195 E	72.84
939691	AE1-199	1.59
939701	AE1-201 C	1.34
939702	AE1-201 E	0.29
939732	AE1-204 E	0.2
939861	AE1-222 1	52.55
939871	AE1-222 2	54.95
939921	AE1-228 C O1	6.68
939922	AE1-228 E O1	4.45
939961	AE1-233 C O1	1.55
939962	AE1-233 E O1	6.39
940101	AE1-252 C O1	6.98
940102	AE1-252 E O1	4.65
951721	J643	15.51
952581	J740 C	3.4
952582	J740 E	18.42
953871	J847	8.38
AB2-013	AB2-013	10.64
AE1-033	AE1-033	12.03
BLUEG	BLUEG	2.86
CANNELTON	CANNELTON	0.0
CARR	CARR	0.5
CATAWBA	CATAWBA	0.16
CBM-S1	CBM-S1	1.36
CBM-W1	CBM-W1	19.98
CBM-W2	CBM-W2	38.44

Bus #	Bus	MW Impact
CIN	CIN	0.12
DEARBORN	DEARBORN	2.29
G-007	G-007	1.38
HAMLET	HAMLET	0.65
MEC	MEC	25.05
O-066	O-066	4.65
RENSSELAER	RENSSELAER	0.39
SANTEETLA	SANTEETLA	0.0
TRIMBLE	TRIMBLE	0.34
WEC	WEC	5.32
Z1-043	Z1-043	18.82

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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
57252	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	132.33	132.91	DC	20.81

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
57243	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.41	109.82	DC	12.89

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.04
274654	BRAIDWOOD;1U	19.05
274655	BRAIDWOOD;2U	18.24
274661	LASCO STA;2U	17.6
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.88
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.88
274722	S-055 E	8.45
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274859	EASYR;U1 E	8.17
274860	EASYR;U2 E	8.17
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.74
274891	CAYUG;2U E	9.74
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.78
290108	LEEDK;1U E	18.09
293061	N-015 E	11.61
293516	O-009 E1	6.69
293517	O-009 E2	3.4
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.24
293716	O-029 E	3.97
293717	O-029 E	3.65
294392	P-010 E	14.75
294763	P-046 E	6.98
295109	WESTBROOK E	4.16
295111	SUBLETTE E	1.92
914641	Y2-103	33.8
915011	Y3-013 1	2.82

Bus #	Bus	MW Impact
915021	Y3-013 2	2.82
915031	Y3-013 3	2.82
916221	Z1-073 E	4.01
916502	Z1-106 E1	0.94
916504	Z1-106 E2	0.94
916512	Z1-107 E	1.85
916522	Z1-108 E	1.86
918052	AA1-018 E	11.64
919221	AA1-146	13.04
919581	AA2-030	13.04
920272	AA2-123 E	1.83
924471	AB2-096	31.63
925161	AB2-173	2.33
925302	AB2-191 E	1.03
926311	AC1-109 1	1.42
926321	AC1-109 2	1.42
926331	AC1-110 1	1.42
926341	AC1-110 2	1.42
926351	AC1-111 1	0.57
926361	AC1-111 2	0.57
926371	AC1-111 3	0.57
926381	AC1-111 4	0.57
926391	AC1-111 5	0.57
926401	AC1-111 6	0.57
926431	AC1-114	1.77
926821	AC1-168 C O1	0.85
926822	AC1-168 E O1	5.68
927091	AC1-204 1	55.19
927101	AC1-204 2	55.12
927451	AC1-142A 1	3.2
927461	AC1-142A 2	3.2
927511	AC1-113 1	0.89
927521	AC1-113 2	0.89
927531	AC1-185 1	0.51
927541	AC1-185 2	0.51
927551	AC1-185 3	0.51
927561	AC1-185 4	0.51
927571	AC1-185 5	0.51
927581	AC1-185 6	0.51
927591	AC1-185 7	0.51
927601	AC1-185 8	0.51
930481	AB1-089	49.05
930501	AB1-091 O1	50.61
930741	AB1-122 1O1	52.99
930751	AB1-122 2O1	56.33
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.06
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84

Bus #	Bus	MW Impact
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.19
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.19
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.2
934431	AD1-067 C	0.1
934432	AD1-067 E	0.41
934651	AD1-096 C	0.66
934652	AD1-096 E	1.08
934701	AD1-098 C O1	5.12
934702	AD1-098 E O1	3.74
934721	AD1-100 C	14.27
934722	AD1-100 E	66.6
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.99
934882	AD1-117 E	2.66
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.16
935002	AD1-133 E O1	10.11
936291	AD2-038 C O1	1.71
936292	AD2-038 E O1	11.45
936371	AD2-047 C O1	1.56
936372	AD2-047 E O1	16.75
936461	AD2-060	1.83
936511	AD2-066 C O1	6.19
936512	AD2-066 E O1	4.13
936781	AD2-101 C	3.09
936782	AD2-101 E	14.46
936791	AD2-102 C	8.96
936792	AD2-102 E	8.61
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.4
937031	AD2-137 C O1	2.44
937032	AD2-137 E O1	11.43
937051	AD2-140 C O1	2.44
937052	AD2-140 E O1	11.42
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.44
937071	AD2-142 C O1	4.88
937072	AD2-142 E O1	22.85
937121	AD2-148 C O1	2.43
937122	AD2-148 E O1	11.37
937131	AD2-149 C O1	2.43
937132	AD2-149 E O1	11.37

Bus #	Bus	MW Impact
937141	AD2-150 C O1	2.43
937142	AD2-150 E O1	11.37
937181	AD2-155 C O1	2.43
937182	AD2-155 E O1	11.37
937311	AD2-172 C	1.83
937312	AD2-172 E	2.53
937321	AD2-175 C	11.32
937322	AD2-175 E	7.55
937331	AD2-176 C O1	5.48
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	0.8
937532	AD2-214 E	0.38
938012	AE1-002 E O1	4.9
938511	AE1-070 1	6.97
938521	AE1-070 2	6.37
938851	AE1-113 C O1	6.63
938852	AE1-113 E O1	20.84
938861	AE1-114 C O1	2.67
938862	AE1-114 E O1	10.22
939051	AE1-134 1	1.01
939061	AE1-134 2	1.01
939321	AE1-163 C O1	4.3
939322	AE1-163 E O1	26.41
939351	AE1-166 C O1	7.6
939352	AE1-166 E O1	7.02
939401	AE1-172 C O1	4.47
939402	AE1-172 E O1	20.95
939641	AE1-194 C	18.96
939642	AE1-194 E	126.86
939651	AE1-195 C	18.96
939652	AE1-195 E	126.86
939691	AE1-199	1.78
939701	AE1-201 C	1.5
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.52
939871	AE1-222 2	62.2
939921	AE1-228 C O1	7.48
939922	AE1-228 E O1	4.99
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.16
940101	AE1-252 C O1	7.63
940102	AE1-252 E O1	5.08
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.47
BLUEG	BLUEG	5.05
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23

Bus #	Bus	MW Impact
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.04
CBM-W2	CBM-W2	37.14
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.14
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.58
O-066	O-066	5.3
RENSSELAER	RENSSELAER	0.45
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.97
Z1-043	Z1-043	20.98

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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
57103	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.16	DC	21.24

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	14.81
274722	S-055 E	13.75
274772	LINCOLN ;3U	3.36
274773	LINCOLN ;4U	3.36
274774	LINCOLN ;5U	3.36
274775	LINCOLN ;6U	3.36
274776	LINCOLN ;7U	3.36
274777	LINCOLN ;8U	3.36
274859	EASYR;U1 E	13.46
274860	EASYR;U2 E	13.46
274888	PILOT HIL;1E	23.62
274890	CAYUG;1U E	20.25
274891	CAYUG;2U E	20.25
275149	KEMPTON ;1E	23.62
290021	O50 E	23.75
290051	GSG-6; E	12.8
290108	LEEDK;1U E	29.74
293061	N-015 E	19.44
293516	O-009 E1	1.0
293517	O-009 E2	0.51
293518	O-009 E3	0.56
293644	O22 E1	12.55
293645	O22 E2	24.37
293715	O-029 E	11.98
293716	O-029 E	6.57
293717	O-029 E	6.04
294392	P-010 E	24.69
294763	P-046 E	11.48
295109	WESTBROOK E	6.85
295111	SUBLETTE E	3.18
296125	R-030 C3	4.98
296128	R-030 E3	19.93
296271	R-030 C2	4.92
296272	R-030 E2	19.7
296308	R-030 C1	4.92
296309	R-030 E1	19.7
910542	X3-005 E	0.9
914641	Y2-103	55.02
915011	Y3-013 1	4.58
915021	Y3-013 2	4.58
915031	Y3-013 3	4.58

Bus #	Bus	MW Impact
916221	Z1-073 E	6.61
916502	Z1-106 E1	1.55
916504	Z1-106 E2	1.55
916512	Z1-107 E	3.17
916522	Z1-108 E	3.04
917502	Z2-087 E	25.76
918052	AA1-018 E	20.13
919221	AA1-146	21.54
919581	AA2-030	21.54
920272	AA2-123 E	2.99
924041	AB2-047 C O1	4.75
924042	AB2-047 E O1	31.79
924471	AB2-096	51.84
925161	AB2-173	3.84
925302	AB2-191 E	1.7
925881	AC1-067 O1	168.51
926311	AC1-109 1	2.34
926321	AC1-109 2	2.34
926331	AC1-110 1	2.33
926341	AC1-110 2	2.33
926351	AC1-111 1	0.94
926361	AC1-111 2	0.94
926371	AC1-111 3	0.94
926381	AC1-111 4	0.94
926391	AC1-111 5	0.94
926401	AC1-111 6	0.94
926431	AC1-114	2.91
926821	AC1-168 C O1	1.43
926822	AC1-168 E O1	9.59
927091	AC1-204 1	88.93
927101	AC1-204 2	88.93
927451	AC1-142A 1	5.12
927461	AC1-142A 2	5.12
927511	AC1-113 1	1.46
927521	AC1-113 2	1.46
927531	AC1-185 1	0.84
927541	AC1-185 2	0.84
927551	AC1-185 3	0.84
927561	AC1-185 4	0.84
927571	AC1-185 5	0.84
927581	AC1-185 6	0.84
927591	AC1-185 7	0.84
927601	AC1-185 8	0.84
930481	AB1-089	80.5
930501	AB1-091 O1	93.97
930741	AB1-122 1O1	89.35
930751	AB1-122 2O1	90.31
932881	AC2-115 1	2.91
932891	AC2-115 2	2.91
932921	AC2-116	1.02
932931	AC2-117	6.52
933341	AC2-147 C	1.07

Bus #	Bus	MW Impact
933342	AC2-147 E	1.74
933411	AC2-154 C	3.21
933412	AC2-154 E	5.23
933431	AC2-156 C O1	1.17
933432	AC2-156 E O1	1.91
933911	AD1-013 C	2.25
933912	AD1-013 E	3.6
933931	AD1-016 C	1.14
933932	AD1-016 E	1.85
934101	AD1-039 1	8.76
934111	AD1-039 2	8.85
934401	AD1-064 C O1	3.92
934402	AD1-064 E O1	18.37
934431	AD1-067 C	0.16
934432	AD1-067 E	0.68
934651	AD1-096 C	1.09
934652	AD1-096 E	1.78
934701	AD1-098 C O1	8.43
934702	AD1-098 E O1	6.15
934721	AD1-100 C	29.44
934722	AD1-100 E	137.37
934871	AD1-116 C	1.17
934872	AD1-116 E	1.91
934881	AD1-117 C	6.58
934882	AD1-117 E	4.39
934971	AD1-129 C	1.11
934972	AD1-129 E	0.74
935001	AD1-133 C O1	27.42
935002	AD1-133 E O1	18.28
936291	AD2-038 C O1	2.88
936292	AD2-038 E O1	19.29
936371	AD2-047 C O1	2.87
936372	AD2-047 E O1	30.87
936461	AD2-060	3.37
936511	AD2-066 C O1	10.36
936512	AD2-066 E O1	6.91
936781	AD2-101 C	5.83
936782	AD2-101 E	27.31
936791	AD2-102 C	14.71
936792	AD2-102 E	14.14
936961	AD2-130	0.69
937001	AD2-134 C	3.35
937002	AD2-134 E	13.82
937031	AD2-137 C O1	7.17
937032	AD2-137 E O1	33.59
937051	AD2-140 C O1	7.53
937052	AD2-140 E O1	35.28
937061	AD2-141 C O1	7.49
937062	AD2-141 E O1	35.32
937071	AD2-142 C O1	15.07
937072	AD2-142 E O1	70.55
937121	AD2-148 C O1	4.51

Bus #	Bus	MW Impact
937122	AD2-148 E O1	21.13
937131	AD2-149 C O1	4.51
937132	AD2-149 E O1	21.13
937141	AD2-150 C O1	4.51
937142	AD2-150 E O1	21.13
937181	AD2-155 C O1	4.51
937182	AD2-155 E O1	21.13
937311	AD2-172 C	3.01
937312	AD2-172 E	4.16
937321	AD2-175 C	21.03
937322	AD2-175 E	14.02
937331	AD2-176 C O1	8.97
937332	AD2-176 E O1	5.98
937401	AD2-194 1	9.56
937411	AD2-194 2	9.56
938012	AE1-002 E O1	14.4
938511	AE1-070 1	11.24
938521	AE1-070 2	10.28
938851	AE1-113 C O1	10.75
938852	AE1-113 E O1	33.78
938861	AE1-114 C O1	4.4
938862	AE1-114 E O1	16.84
939051	AE1-134 1	1.67
939061	AE1-134 2	1.67
939321	AE1-163 C O1	7.24
939322	AE1-163 E O1	44.49
939351	AE1-166 C O1	14.52
939352	AE1-166 E O1	13.41
939401	AE1-172 C O1	9.52
939402	AE1-172 E O1	44.57
939691	AE1-199	2.93
939701	AE1-201 C	2.45
939702	AE1-201 E	0.54
939732	AE1-204 E	0.36
939741	AE1-205 C O1	12.48
939742	AE1-205 E O1	17.23
939861	AE1-222 1	98.68
939871	AE1-222 2	99.73
939921	AE1-228 C O1	12.31
939922	AE1-228 E O1	8.21
939961	AE1-233 C O1	2.85
939962	AE1-233 E O1	11.77
940101	AE1-252 C O1	16.23
940102	AE1-252 E O1	10.82
AB2-013	AB2-013	19.85
AE1-033	AE1-033	22.1
BLUEG	BLUEG	7.86
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.96
CATAWBA	CATAWBA	0.38
CBM-S1	CBM-S1	1.85

Bus #	Bus	MW Impact
CBM-W1	CBM-W1	37.32
CBM-W2	CBM-W2	71.02
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.9
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.69
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.46
MEC	MEC	46.58
O-066	O-066	9.06
RENSSELAER	RENSSELAER	0.76
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.94
WEC	WEC	9.75
Z1-043	Z1-043	35.51

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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
57105	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.2	162.58	DC	21.69

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	15.13
274722	S-055 E	14.05
274772	LINCOLN ;3U	3.45
274773	LINCOLN ;4U	3.45
274774	LINCOLN ;5U	3.45
274775	LINCOLN ;6U	3.45
274776	LINCOLN ;7U	3.45
274777	LINCOLN ;8U	3.45
274832	U4-027	6.82
274859	EASYR;U1 E	13.75
274860	EASYR;U2 E	13.75
274888	PILOT HIL;1E	24.11
274890	CAYUG;1U E	20.66
274891	CAYUG;2U E	20.66
275149	KEMPTON ;1E	24.11
290021	O50 E	24.25
290051	GSG-6; E	13.07
290108	LEEDK;1U E	30.37
293061	N-015 E	19.85
293516	O-009 E1	11.37
293517	O-009 E2	5.78
293518	O-009 E3	6.36
293644	O22 E1	12.82
293645	O22 E2	24.89
293715	O-029 E	12.24
293716	O-029 E	6.71
293717	O-029 E	6.17
293771	O-035 E	8.08
294392	P-010 E	25.21
294763	P-046 E	11.72
295109	WESTBROOK E	7.0
295111	SUBLETTE E	3.24
296125	R-030 C3	5.08
296128	R-030 E3	20.34
296271	R-030 C2	5.02
296272	R-030 E2	20.09
296308	R-030 C1	5.02
296309	R-030 E1	20.09
910542	X3-005 E	0.91
914641	Y2-103	56.19
915011	Y3-013 1	4.68

Bus #	Bus	MW Impact
915021	Y3-013 2	4.68
915031	Y3-013 3	4.68
916211	Z1-072 E	6.11
916221	Z1-073 E	6.75
916502	Z1-106 E1	1.58
916504	Z1-106 E2	1.58
916512	Z1-107 E	3.23
916522	Z1-108 E	3.11
917502	Z2-087 E	26.28
918052	AA1-018 E	20.57
919221	AA1-146	22.0
919581	AA2-030	22.0
920272	AA2-123 E	3.06
924041	AB2-047 C O1	4.85
924042	AB2-047 E O1	32.43
924471	AB2-096	52.94
925161	AB2-173	3.92
925302	AB2-191 E	1.73
925881	AC1-067 O1	172.23
926311	AC1-109 1	2.39
926321	AC1-109 2	2.39
926331	AC1-110 1	2.37
926341	AC1-110 2	2.37
926351	AC1-111 1	0.96
926361	AC1-111 2	0.96
926371	AC1-111 3	0.96
926381	AC1-111 4	0.96
926391	AC1-111 5	0.96
926401	AC1-111 6	0.96
926431	AC1-114	2.97
926821	AC1-168 C O1	1.46
926822	AC1-168 E O1	9.79
927091	AC1-204 1	90.83
927101	AC1-204 2	90.83
927201	AC1-214 C O1	2.59
927202	AC1-214 E O1	8.24
927451	AC1-142A 1	5.23
927461	AC1-142A 2	5.23
927511	AC1-113 1	1.49
927521	AC1-113 2	1.49
927531	AC1-185 1	0.86
927541	AC1-185 2	0.86
927551	AC1-185 3	0.86
927561	AC1-185 4	0.86
927571	AC1-185 5	0.86
927581	AC1-185 6	0.86
927591	AC1-185 7	0.86
927601	AC1-185 8	0.86
930481	AB1-089	82.21
930501	AB1-091 O1	95.92
930741	AB1-122 1O1	91.25
930751	AB1-122 2O1	92.24

Bus #	Bus	MW Impact
932881	AC2-115 1	2.97
932891	AC2-115 2	2.97
932921	AC2-116	1.04
932931	AC2-117	6.67
933341	AC2-147 C	1.09
933342	AC2-147 E	1.78
933411	AC2-154 C	3.27
933412	AC2-154 E	5.34
933431	AC2-156 C O1	1.2
933432	AC2-156 E O1	1.95
933911	AD1-013 C	2.3
933912	AD1-013 E	3.68
933931	AD1-016 C	1.16
933932	AD1-016 E	1.89
934101	AD1-039 1	8.94
934111	AD1-039 2	9.04
934401	AD1-064 C O1	4.01
934402	AD1-064 E O1	18.76
934431	AD1-067 C	0.16
934432	AD1-067 E	0.69
934651	AD1-096 C	1.11
934652	AD1-096 E	1.82
934701	AD1-098 C O1	8.6
934702	AD1-098 E O1	6.28
934721	AD1-100 C	30.02
934722	AD1-100 E	140.09
934871	AD1-116 C	1.2
934872	AD1-116 E	1.95
934881	AD1-117 C	6.72
934882	AD1-117 E	4.48
934971	AD1-129 C	1.13
934972	AD1-129 E	0.75
935001	AD1-133 C O1	27.99
935002	AD1-133 E O1	18.66
936291	AD2-038 C O1	2.94
936292	AD2-038 E O1	19.7
936371	AD2-047 C O1	2.93
936372	AD2-047 E O1	31.51
936461	AD2-060	3.44
936511	AD2-066 C O1	10.58
936512	AD2-066 E O1	7.05
936781	AD2-101 C	5.95
936782	AD2-101 E	27.88
936791	AD2-102 C	15.03
936792	AD2-102 E	14.44
936961	AD2-130	0.7
937001	AD2-134 C	3.42
937002	AD2-134 E	14.12
937031	AD2-137 C O1	7.31
937032	AD2-137 E O1	34.21
937051	AD2-140 C O1	7.67
937052	AD2-140 E O1	35.93

Bus #	Bus	MW Impact
937061	AD2-141 C O1	7.63
937062	AD2-141 E O1	35.97
937071	AD2-142 C O1	15.35
937072	AD2-142 E O1	71.86
937121	AD2-148 C O1	4.61
937122	AD2-148 E O1	21.57
937131	AD2-149 C O1	4.61
937132	AD2-149 E O1	21.57
937141	AD2-150 C O1	4.61
937142	AD2-150 E O1	21.57
937181	AD2-155 C O1	4.61
937182	AD2-155 E O1	21.57
937311	AD2-172 C	3.08
937312	AD2-172 E	4.25
937321	AD2-175 C	21.46
937322	AD2-175 E	14.31
937331	AD2-176 C O1	9.17
937332	AD2-176 E O1	6.11
937401	AD2-194 1	9.77
937411	AD2-194 2	9.77
938012	AE1-002 E O1	14.67
938511	AE1-070 1	11.48
938521	AE1-070 2	10.5
938851	AE1-113 C O1	10.98
938852	AE1-113 E O1	34.5
938861	AE1-114 C O1	4.5
938862	AE1-114 E O1	17.19
939051	AE1-134 1	1.71
939061	AE1-134 2	1.71
939321	AE1-163 C O1	7.4
939322	AE1-163 E O1	45.45
939351	AE1-166 C O1	14.82
939352	AE1-166 E O1	13.68
939401	AE1-172 C O1	9.71
939402	AE1-172 E O1	45.45
939691	AE1-199	2.99
939701	AE1-201 C	2.51
939702	AE1-201 E	0.55
939732	AE1-204 E	0.37
939741	AE1-205 C O1	12.73
939742	AE1-205 E O1	17.58
939861	AE1-222 1	100.77
939871	AE1-222 2	101.86
939921	AE1-228 C O1	12.57
939922	AE1-228 E O1	8.38
939961	AE1-233 C O1	2.91
939962	AE1-233 E O1	12.02
940101	AE1-252 C O1	16.55
940102	AE1-252 E O1	11.03
AB2-013	AB2-013	20.27
AE1-033	AE1-033	22.58
BLUEG	BLUEG	8.03

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.98
CATAWBA	CATAWBA	0.39
CBM-S1	CBM-S1	1.88
CBM-W1	CBM-W1	38.11
CBM-W2	CBM-W2	72.48
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.96
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.75
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.49
MEC	MEC	47.56
O-066	O-066	9.26
RENSSELAER	RENSSELAER	0.77
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.96
WEC	WEC	9.96
Z1-043	Z1-043	36.25

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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
57135	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	122.0	122.52	DC	17.94

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	12.57
274654	BRAIDWOOD;1U	26.97
274655	BRAIDWOOD;2U	25.8
274661	LASCO STA;2U	24.66
274687	WILL CNTY;4U	11.24
274704	KENDALL ;1C	3.96
274705	KENDALL ;1S	2.64
274706	KENDALL ;2C	3.96
274707	KENDALL ;2S	2.64
274722	S-055 E	11.77
274751	CRETE EC ;1U	5.74
274752	CRETE EC ;2U	5.74
274753	CRETE EC ;3U	5.74
274754	CRETE EC ;4U	5.74
274859	EASYR;U1 E	11.37
274860	EASYR;U2 E	11.37
274861	TOP CROP ;1U	0.47
274862	TOP CROP ;2U	0.91
274888	PILOT HIL;1E	16.88
274890	CAYUG;1U E	13.45
274891	CAYUG;2U E	13.45
275149	KEMPTON ;1E	16.88
290021	O50 E	20.54
290051	GSG-6; E	10.8
290108	LEEDK;1U E	25.11
293061	N-015 E	16.24
293516	O-009 E1	9.32
293517	O-009 E2	4.73
293518	O-009 E3	5.21
293644	O22 E1	12.21
293645	O22 E2	23.71
293715	O-029 E	10.07
293716	O-029 E	5.52
293717	O-029 E	5.08
294392	P-010 E	20.62
294763	P-046 E	9.71
295109	WESTBROOK E	5.78
295111	SUBLETTE E	2.68
914641	Y2-103	47.06
915011	Y3-013 1	3.92
915021	Y3-013 2	3.92

Bus #	Bus	MW Impact
915031	Y3-013 3	3.92
916221	Z1-073 E	5.57
916502	Z1-106 E1	1.31
916504	Z1-106 E2	1.31
916512	Z1-107 E	2.52
916522	Z1-108 E	2.59
918052	AA1-018 E	15.99
919221	AA1-146	18.16
919581	AA2-030	18.16
920272	AA2-123 E	2.54
924471	AB2-096	43.99
925161	AB2-173	3.24
925302	AB2-191 E	1.43
926311	AC1-109 1	1.97
926321	AC1-109 2	1.97
926331	AC1-110 1	1.98
926341	AC1-110 2	1.98
926351	AC1-111 1	0.79
926361	AC1-111 2	0.79
926371	AC1-111 3	0.79
926381	AC1-111 4	0.79
926391	AC1-111 5	0.79
926401	AC1-111 6	0.79
926431	AC1-114	2.47
926821	AC1-168 C O1	1.18
926822	AC1-168 E O1	7.92
927091	AC1-204 1	77.42
927101	AC1-204 2	77.29
927451	AC1-142A 1	4.48
927461	AC1-142A 2	4.48
927511	AC1-113 1	1.23
927521	AC1-113 2	1.23
927531	AC1-185 1	0.71
927541	AC1-185 2	0.71
927551	AC1-185 3	0.71
927561	AC1-185 4	0.71
927571	AC1-185 5	0.71
927581	AC1-185 6	0.71
927591	AC1-185 7	0.71
927601	AC1-185 8	0.71
930481	AB1-089	68.22
930501	AB1-091 O1	66.51
930741	AB1-122 1O1	73.76
930751	AB1-122 2O1	78.95
932881	AC2-115 1	2.47
932891	AC2-115 2	2.47
932921	AC2-116	0.86
933341	AC2-147 C	0.9
933342	AC2-147 E	1.47
933411	AC2-154 C	2.29
933412	AC2-154 E	3.74
933431	AC2-156 C O1	0.99

Bus #	Bus	MW Impact
933432	AC2-156 E O1	1.61
933911	AD1-013 C	1.9
933912	AD1-013 E	3.04
933931	AD1-016 C	0.97
933932	AD1-016 E	1.58
934101	AD1-039 1	7.23
934111	AD1-039 2	7.74
934401	AD1-064 C O1	3.33
934402	AD1-064 E O1	15.58
934431	AD1-067 C	0.14
934432	AD1-067 E	0.57
934651	AD1-096 C	0.92
934652	AD1-096 E	1.51
934701	AD1-098 C O1	7.11
934702	AD1-098 E O1	5.19
934721	AD1-100 C	19.71
934722	AD1-100 E	91.99
934871	AD1-116 C	0.93
934872	AD1-116 E	1.52
934881	AD1-117 C	5.55
934882	AD1-117 E	3.7
934971	AD1-129 C	0.94
934972	AD1-129 E	0.63
935001	AD1-133 C O1	21.05
935002	AD1-133 E O1	14.03
936291	AD2-038 C O1	2.37
936292	AD2-038 E O1	15.89
936371	AD2-047 C O1	2.05
936372	AD2-047 E O1	22.06
936461	AD2-060	2.41
936511	AD2-066 C O1	8.6
936512	AD2-066 E O1	5.74
936781	AD2-101 C	3.03
936782	AD2-101 E	14.16
936791	AD2-102 C	12.47
936792	AD2-102 E	11.98
936961	AD2-130	0.59
937001	AD2-134 C	2.82
937002	AD2-134 E	11.67
937031	AD2-137 C O1	3.3
937032	AD2-137 E O1	15.44
937051	AD2-140 C O1	3.28
937052	AD2-140 E O1	15.37
937061	AD2-141 C O1	3.27
937062	AD2-141 E O1	15.39
937071	AD2-142 C O1	6.57
937072	AD2-142 E O1	30.75
937121	AD2-148 C O1	3.19
937122	AD2-148 E O1	14.95
937131	AD2-149 C O1	3.19
937132	AD2-149 E O1	14.95
937141	AD2-150 C O1	3.19

Bus #	Bus	MW Impact
937142	AD2-150 E O1	14.95
937181	AD2-155 C O1	3.19
937182	AD2-155 E O1	14.95
937311	AD2-172 C	2.55
937312	AD2-172 E	3.52
937321	AD2-175 C	14.88
937322	AD2-175 E	9.92
937331	AD2-176 C O1	7.62
937332	AD2-176 E O1	5.08
937401	AD2-194 1	8.33
937411	AD2-194 2	8.31
937531	AD2-214 C	4.54
937532	AD2-214 E	2.14
938012	AE1-002 E O1	6.62
938511	AE1-070 1	9.78
938521	AE1-070 2	8.93
938851	AE1-113 C O1	9.29
938852	AE1-113 E O1	29.21
938861	AE1-114 C O1	3.72
938862	AE1-114 E O1	14.22
939051	AE1-134 1	1.41
939061	AE1-134 2	1.41
939321	AE1-163 C O1	5.97
939322	AE1-163 E O1	36.64
939351	AE1-166 C O1	10.54
939352	AE1-166 E O1	9.73
939401	AE1-172 C O1	6.17
939402	AE1-172 E O1	28.89
939641	AE1-194 C	32.38
939642	AE1-194 E	216.73
939651	AE1-195 C	32.38
939652	AE1-195 E	216.73
939691	AE1-199	2.47
939701	AE1-201 C	2.08
939702	AE1-201 E	0.46
939732	AE1-204 E	0.31
939861	AE1-222 1	81.46
939871	AE1-222 2	87.19
939921	AE1-228 C O1	10.39
939922	AE1-228 E O1	6.93
939961	AE1-233 C O1	2.41
939962	AE1-233 E O1	9.95
940101	AE1-252 C O1	10.52
940102	AE1-252 E O1	7.01
AB2-013	AB2-013	16.6
AE1-033	AE1-033	18.74
BLUEG	BLUEG	6.66
CALDERWOOD	CALDERWOOD	0.12
CANNELTON	CANNELTON	0.14
CARR	CARR	0.8
CATAWBA	CATAWBA	0.32
CBM-S1	CBM-S1	1.14

Bus #	Bus	MW Impact
CBM-W1	CBM-W1	25.55
CBM-W2	CBM-W2	51.99
CHEOAH	CHEOAH	0.12
CHILHOWEE	CHILHOWEE	0.04
DEARBORN	DEARBORN	3.16
ELMERSMITH	ELMERSMITH	0.17
G-007	G-007	2.23
GIBSON	GIBSON	0.08
HAMLET	HAMLET	1.22
MEC	MEC	38.45
O-066	O-066	7.49
RENSSELAER	RENSSELAER	0.63
SANTEETLA	SANTEETLA	0.04
TRIMBLE	TRIMBLE	0.78
WEC	WEC	8.32
Z1-043	Z1-043	29.26

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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
655028	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.68	133.15	DC	13.96

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
57102	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.16	DC	21.24

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	14.81
274722	S-055 E	13.75
274772	LINCOLN ;3U	3.36
274773	LINCOLN ;4U	3.36
274774	LINCOLN ;5U	3.36
274775	LINCOLN ;6U	3.36
274776	LINCOLN ;7U	3.36
274777	LINCOLN ;8U	3.36
274859	EASYR;U1 E	13.46
274860	EASYR;U2 E	13.46
274888	PILOT HIL;1E	23.62
274890	CAYUG;1U E	20.25
274891	CAYUG;2U E	20.25
275149	KEMPTON ;1E	23.62
290021	O50 E	23.75
290051	GSG-6; E	12.8
290108	LEEDK;1U E	29.74
293061	N-015 E	19.44
293516	O-009 E1	1.0
293517	O-009 E2	0.51
293518	O-009 E3	0.56
293644	O22 E1	12.55
293645	O22 E2	24.37
293715	O-029 E	11.98
293716	O-029 E	6.57
293717	O-029 E	6.04
294392	P-010 E	24.69
294763	P-046 E	11.48
295109	WESTBROOK E	6.85
295111	SUBLETTE E	3.18
296125	R-030 C3	4.98
296128	R-030 E3	19.93
296271	R-030 C2	4.92
296272	R-030 E2	19.7
296308	R-030 C1	4.92
296309	R-030 E1	19.7
910542	X3-005 E	0.9
914641	Y2-103	55.02
915011	Y3-013 1	4.58
915021	Y3-013 2	4.58
915031	Y3-013 3	4.58

Bus #	Bus	MW Impact
916221	Z1-073 E	6.61
916502	Z1-106 E1	1.55
916504	Z1-106 E2	1.55
916512	Z1-107 E	3.17
916522	Z1-108 E	3.04
917502	Z2-087 E	25.76
918052	AA1-018 E	20.13
919221	AA1-146	21.54
919581	AA2-030	21.54
920272	AA2-123 E	2.99
924041	AB2-047 C O1	4.75
924042	AB2-047 E O1	31.79
924471	AB2-096	51.84
925161	AB2-173	3.84
925302	AB2-191 E	1.7
925881	AC1-067 O1	168.51
926311	AC1-109 1	2.34
926321	AC1-109 2	2.34
926331	AC1-110 1	2.33
926341	AC1-110 2	2.33
926351	AC1-111 1	0.94
926361	AC1-111 2	0.94
926371	AC1-111 3	0.94
926381	AC1-111 4	0.94
926391	AC1-111 5	0.94
926401	AC1-111 6	0.94
926431	AC1-114	2.91
926821	AC1-168 C O1	1.43
926822	AC1-168 E O1	9.59
927091	AC1-204 1	88.93
927101	AC1-204 2	88.93
927451	AC1-142A 1	5.12
927461	AC1-142A 2	5.12
927511	AC1-113 1	1.46
927521	AC1-113 2	1.46
927531	AC1-185 1	0.84
927541	AC1-185 2	0.84
927551	AC1-185 3	0.84
927561	AC1-185 4	0.84
927571	AC1-185 5	0.84
927581	AC1-185 6	0.84
927591	AC1-185 7	0.84
927601	AC1-185 8	0.84
930481	AB1-089	80.5
930501	AB1-091 O1	93.97
930741	AB1-122 1O1	89.35
930751	AB1-122 2O1	90.31
932881	AC2-115 1	2.91
932891	AC2-115 2	2.91
932921	AC2-116	1.02
932931	AC2-117	6.52
933341	AC2-147 C	1.07

Bus #	Bus	MW Impact
933342	AC2-147 E	1.74
933411	AC2-154 C	3.21
933412	AC2-154 E	5.23
933431	AC2-156 C O1	1.17
933432	AC2-156 E O1	1.91
933911	AD1-013 C	2.25
933912	AD1-013 E	3.6
933931	AD1-016 C	1.14
933932	AD1-016 E	1.85
934101	AD1-039 1	8.76
934111	AD1-039 2	8.85
934401	AD1-064 C O1	3.92
934402	AD1-064 E O1	18.37
934431	AD1-067 C	0.16
934432	AD1-067 E	0.68
934651	AD1-096 C	1.09
934652	AD1-096 E	1.78
934701	AD1-098 C O1	8.43
934702	AD1-098 E O1	6.15
934721	AD1-100 C	29.44
934722	AD1-100 E	137.37
934871	AD1-116 C	1.17
934872	AD1-116 E	1.91
934881	AD1-117 C	6.58
934882	AD1-117 E	4.39
934971	AD1-129 C	1.11
934972	AD1-129 E	0.74
935001	AD1-133 C O1	27.42
935002	AD1-133 E O1	18.28
936291	AD2-038 C O1	2.88
936292	AD2-038 E O1	19.29
936371	AD2-047 C O1	2.87
936372	AD2-047 E O1	30.87
936461	AD2-060	3.37
936511	AD2-066 C O1	10.36
936512	AD2-066 E O1	6.91
936781	AD2-101 C	5.83
936782	AD2-101 E	27.31
936791	AD2-102 C	14.71
936792	AD2-102 E	14.14
936961	AD2-130	0.69
937001	AD2-134 C	3.35
937002	AD2-134 E	13.82
937031	AD2-137 C O1	7.17
937032	AD2-137 E O1	33.59
937051	AD2-140 C O1	7.53
937052	AD2-140 E O1	35.28
937061	AD2-141 C O1	7.49
937062	AD2-141 E O1	35.32
937071	AD2-142 C O1	15.07
937072	AD2-142 E O1	70.55
937121	AD2-148 C O1	4.51

Bus #	Bus	MW Impact
937122	AD2-148 E O1	21.13
937131	AD2-149 C O1	4.51
937132	AD2-149 E O1	21.13
937141	AD2-150 C O1	4.51
937142	AD2-150 E O1	21.13
937181	AD2-155 C O1	4.51
937182	AD2-155 E O1	21.13
937311	AD2-172 C	3.01
937312	AD2-172 E	4.16
937321	AD2-175 C	21.03
937322	AD2-175 E	14.02
937331	AD2-176 C O1	8.97
937332	AD2-176 E O1	5.98
937401	AD2-194 1	9.56
937411	AD2-194 2	9.56
938012	AE1-002 E O1	14.4
938511	AE1-070 1	11.24
938521	AE1-070 2	10.28
938851	AE1-113 C O1	10.75
938852	AE1-113 E O1	33.78
938861	AE1-114 C O1	4.4
938862	AE1-114 E O1	16.84
939051	AE1-134 1	1.67
939061	AE1-134 2	1.67
939321	AE1-163 C O1	7.24
939322	AE1-163 E O1	44.49
939351	AE1-166 C O1	14.52
939352	AE1-166 E O1	13.41
939401	AE1-172 C O1	9.52
939402	AE1-172 E O1	44.57
939691	AE1-199	2.93
939701	AE1-201 C	2.45
939702	AE1-201 E	0.54
939732	AE1-204 E	0.36
939741	AE1-205 C O1	12.48
939742	AE1-205 E O1	17.23
939861	AE1-222 1	98.68
939871	AE1-222 2	99.73
939921	AE1-228 C O1	12.31
939922	AE1-228 E O1	8.21
939961	AE1-233 C O1	2.85
939962	AE1-233 E O1	11.77
940101	AE1-252 C O1	16.23
940102	AE1-252 E O1	10.82
AB2-013	AB2-013	19.85
AE1-033	AE1-033	22.1
BLUEG	BLUEG	7.86
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.96
CATAWBA	CATAWBA	0.38
CBM-S1	CBM-S1	1.85

Bus #	Bus	MW Impact
CBM-W1	CBM-W1	37.32
CBM-W2	CBM-W2	71.02
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.9
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.69
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.46
MEC	MEC	46.58
O-066	O-066	9.06
RENSSELAER	RENSSELAER	0.76
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.94
WEC	WEC	9.75
Z1-043	Z1-043	35.51

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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
57107	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.2	162.58	DC	21.69

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	15.13
274722	S-055 E	14.05
274772	LINCOLN ;3U	3.45
274773	LINCOLN ;4U	3.45
274774	LINCOLN ;5U	3.45
274775	LINCOLN ;6U	3.45
274776	LINCOLN ;7U	3.45
274777	LINCOLN ;8U	3.45
274832	U4-027	6.82
274859	EASYR;U1 E	13.75
274860	EASYR;U2 E	13.75
274888	PILOT HIL;1E	24.11
274890	CAYUG;1U E	20.66
274891	CAYUG;2U E	20.66
275149	KEMPTON ;1E	24.11
290021	O50 E	24.25
290051	GSG-6; E	13.07
290108	LEEDK;1U E	30.37
293061	N-015 E	19.85
293516	O-009 E1	11.37
293517	O-009 E2	5.78
293518	O-009 E3	6.36
293644	O22 E1	12.82
293645	O22 E2	24.89
293715	O-029 E	12.24
293716	O-029 E	6.71
293717	O-029 E	6.17
293771	O-035 E	8.08
294392	P-010 E	25.21
294763	P-046 E	11.72
295109	WESTBROOK E	7.0
295111	SUBLETTE E	3.24
296125	R-030 C3	5.08
296128	R-030 E3	20.34
296271	R-030 C2	5.02
296272	R-030 E2	20.09
296308	R-030 C1	5.02
296309	R-030 E1	20.09
910542	X3-005 E	0.91
914641	Y2-103	56.19
915011	Y3-013 1	4.68

Bus #	Bus	MW Impact
915021	Y3-013 2	4.68
915031	Y3-013 3	4.68
916211	Z1-072 E	6.11
916221	Z1-073 E	6.75
916502	Z1-106 E1	1.58
916504	Z1-106 E2	1.58
916512	Z1-107 E	3.23
916522	Z1-108 E	3.11
917502	Z2-087 E	26.28
918052	AA1-018 E	20.57
919221	AA1-146	22.0
919581	AA2-030	22.0
920272	AA2-123 E	3.06
924041	AB2-047 C O1	4.85
924042	AB2-047 E O1	32.43
924471	AB2-096	52.94
925161	AB2-173	3.92
925302	AB2-191 E	1.73
925881	AC1-067 O1	172.23
926311	AC1-109 1	2.39
926321	AC1-109 2	2.39
926331	AC1-110 1	2.37
926341	AC1-110 2	2.37
926351	AC1-111 1	0.96
926361	AC1-111 2	0.96
926371	AC1-111 3	0.96
926381	AC1-111 4	0.96
926391	AC1-111 5	0.96
926401	AC1-111 6	0.96
926431	AC1-114	2.97
926821	AC1-168 C O1	1.46
926822	AC1-168 E O1	9.79
927091	AC1-204 1	90.83
927101	AC1-204 2	90.83
927201	AC1-214 C O1	2.59
927202	AC1-214 E O1	8.24
927451	AC1-142A 1	5.23
927461	AC1-142A 2	5.23
927511	AC1-113 1	1.49
927521	AC1-113 2	1.49
927531	AC1-185 1	0.86
927541	AC1-185 2	0.86
927551	AC1-185 3	0.86
927561	AC1-185 4	0.86
927571	AC1-185 5	0.86
927581	AC1-185 6	0.86
927591	AC1-185 7	0.86
927601	AC1-185 8	0.86
930481	AB1-089	82.21
930501	AB1-091 O1	95.92
930741	AB1-122 1O1	91.25
930751	AB1-122 2O1	92.24

Bus #	Bus	MW Impact
932881	AC2-115 1	2.97
932891	AC2-115 2	2.97
932921	AC2-116	1.04
932931	AC2-117	6.67
933341	AC2-147 C	1.09
933342	AC2-147 E	1.78
933411	AC2-154 C	3.27
933412	AC2-154 E	5.34
933431	AC2-156 C O1	1.2
933432	AC2-156 E O1	1.95
933911	AD1-013 C	2.3
933912	AD1-013 E	3.68
933931	AD1-016 C	1.16
933932	AD1-016 E	1.89
934101	AD1-039 1	8.94
934111	AD1-039 2	9.04
934401	AD1-064 C O1	4.01
934402	AD1-064 E O1	18.76
934431	AD1-067 C	0.16
934432	AD1-067 E	0.69
934651	AD1-096 C	1.11
934652	AD1-096 E	1.82
934701	AD1-098 C O1	8.6
934702	AD1-098 E O1	6.28
934721	AD1-100 C	30.02
934722	AD1-100 E	140.09
934871	AD1-116 C	1.2
934872	AD1-116 E	1.95
934881	AD1-117 C	6.72
934882	AD1-117 E	4.48
934971	AD1-129 C	1.13
934972	AD1-129 E	0.75
935001	AD1-133 C O1	27.99
935002	AD1-133 E O1	18.66
936291	AD2-038 C O1	2.94
936292	AD2-038 E O1	19.7
936371	AD2-047 C O1	2.93
936372	AD2-047 E O1	31.51
936461	AD2-060	3.44
936511	AD2-066 C O1	10.58
936512	AD2-066 E O1	7.05
936781	AD2-101 C	5.95
936782	AD2-101 E	27.88
936791	AD2-102 C	15.03
936792	AD2-102 E	14.44
936961	AD2-130	0.7
937001	AD2-134 C	3.42
937002	AD2-134 E	14.12
937031	AD2-137 C O1	7.31
937032	AD2-137 E O1	34.21
937051	AD2-140 C O1	7.67
937052	AD2-140 E O1	35.93

Bus #	Bus	MW Impact
937061	AD2-141 C O1	7.63
937062	AD2-141 E O1	35.97
937071	AD2-142 C O1	15.35
937072	AD2-142 E O1	71.86
937121	AD2-148 C O1	4.61
937122	AD2-148 E O1	21.57
937131	AD2-149 C O1	4.61
937132	AD2-149 E O1	21.57
937141	AD2-150 C O1	4.61
937142	AD2-150 E O1	21.57
937181	AD2-155 C O1	4.61
937182	AD2-155 E O1	21.57
937311	AD2-172 C	3.08
937312	AD2-172 E	4.25
937321	AD2-175 C	21.46
937322	AD2-175 E	14.31
937331	AD2-176 C O1	9.17
937332	AD2-176 E O1	6.11
937401	AD2-194 1	9.77
937411	AD2-194 2	9.77
938012	AE1-002 E O1	14.67
938511	AE1-070 1	11.48
938521	AE1-070 2	10.5
938851	AE1-113 C O1	10.98
938852	AE1-113 E O1	34.5
938861	AE1-114 C O1	4.5
938862	AE1-114 E O1	17.19
939051	AE1-134 1	1.71
939061	AE1-134 2	1.71
939321	AE1-163 C O1	7.4
939322	AE1-163 E O1	45.45
939351	AE1-166 C O1	14.82
939352	AE1-166 E O1	13.68
939401	AE1-172 C O1	9.71
939402	AE1-172 E O1	45.45
939691	AE1-199	2.99
939701	AE1-201 C	2.51
939702	AE1-201 E	0.55
939732	AE1-204 E	0.37
939741	AE1-205 C O1	12.73
939742	AE1-205 E O1	17.58
939861	AE1-222 1	100.77
939871	AE1-222 2	101.86
939921	AE1-228 C O1	12.57
939922	AE1-228 E O1	8.38
939961	AE1-233 C O1	2.91
939962	AE1-233 E O1	12.02
940101	AE1-252 C O1	16.55
940102	AE1-252 E O1	11.03
AB2-013	AB2-013	20.27
AE1-033	AE1-033	22.58
BLUEG	BLUEG	8.03

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.98
CATAWBA	CATAWBA	0.39
CBM-S1	CBM-S1	1.88
CBM-W1	CBM-W1	38.11
CBM-W2	CBM-W2	72.48
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.96
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.75
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.49
MEC	MEC	47.56
O-066	O-066	9.26
RENSSELAER	RENSSELAER	0.77
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.96
WEC	WEC	9.96
Z1-043	Z1-043	36.25

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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
57284	938860	AE1-114 TAP	CE	272598	ESS B427 ;1T	CE	1	COMED_P4_006-45-BT3-4__	breaker	215.0	100.98	132.17	DC	67.06

Bus #	Bus	MW Impact
293715	O-029 E	4.98
293716	O-029 E	2.73
293717	O-029 E	2.51
295111	SUBLETTE E	2.03
933341	AC2-147 C	2.38
933342	AC2-147 E	3.89
934881	AD1-117 C	14.68
934882	AD1-117 E	9.79
938861	AE1-114 C O1	13.9
938862	AE1-114 E O1	53.16
CBM-N	CBM-N	0.03
CBM-S1	CBM-S1	0.62
CBM-S2	CBM-S2	0.19
CBM-W2	CBM-W2	7.29
CIN	CIN	0.22
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.03
G-007A	G-007A	0.09
IPL	IPL	0.12
LGEE	LGEE	0.05
MEC	MEC	4.67
NYISO	NYISO	0.11
O-066A	O-066A	0.04
VFT	VFT	0.24

Affected Systems

MISO

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

Contingency Name	Contingency Definition
COMED_P2-2_111_EJ-138B__2	CONTINGENCY 'COMED_P2-2_111_EJ-138B__2' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271390 TO BUS 272724 CKT 1 / ELECT; B 138 WARRE;BT 138 TRIP BRANCH FROM BUS 271390 TO BUS 275239 CKT 1 / ELECT; B 138 ELECT;2M 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 DISCONNECT BUS 271560 / GLIDD;BT 138 DISCONNECT BUS 272522 / SUGAR; B 138 REMOVE SWSHUNT FROM BUS 271390 END
COMED_P4_111-38-TR82___	CONTINGENCY 'COMED_P4_111-38-TR82___' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271390 TO BUS 272724 CKT 1 / ELECT; B 138 WARRE;BT 138 TRIP BRANCH FROM BUS 271390 TO BUS 275239 CKT 1 / ELECT; B 138 ELECT;2M 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 DISCONNECT BUS 271560 / GLIDD;BT 138 DISCONNECT BUS 272522 / SUGAR; B 138 DISCONNECT BUS 275239 / ELECT;2M 138 REMOVE SWSHUNT FROM BUS 271390 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_P1-2_138-L11106_B-R	CONTINGENCY 'COMED_P1-2_138-L11106_B-R' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 271558 CKT 1 / GLIDD;BT 138 GLIDD; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 272728 CKT 1 / GLIDD;BT 138 WATER; B 138 TRIP BRANCH FROM BUS 271586 TO BUS 272114 CKT 1 / W541 ; B 138 N AUR; B 138 TRIP BRANCH FROM BUS 272114 TO BUS 272522 CKT 1 / N AUR; B 138 SUGAR; B 138 TRIP BRANCH FROM BUS 272522 TO BUS 271560 CKT 1 / SUGAR; B 138 GLIDD;BT 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 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

Contingency Name	Contingency Definition
COMED_P4_144-45-BT6-8__	CONTINGENCY 'COMED_P4_144-45-BT6-8__' TRIP BRANCH FROM BUS 934400 TO BUS 270916 CKT 1 / AD1-064 TAP 345 WAYNE ; B 345 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 270730 TO BUS 270916 CKT 1 / ELEC JUNC; B 345 WAYNE ; B 345 TRIP BRANCH FROM BUS 270916 TO BUS 270917 CKT 1 / WAYNE ; B 345 WAYNE ; R 345 END
COMED_P1-2_345-L0626__B-R-C	CONTINGENCY 'COMED_P1-2_345-L0626__B-R-C' TRIP BRANCH FROM BUS 934400 TO BUS 270916 CKT 1 / AD1-064 TAP 345 WAYNE ; B 345 END
COMED_P4_006-45-BT3-4__	CONTINGENCY 'COMED_P4_006-45-BT3-4__' TRIP BRANCH FROM BUS 274768 TO BUS 270678 CKT 1 / LEECO;BP 345 BYRON; B 345 REMOVE UNIT 1 FROM BUS 274656 / BYRON;1U 25 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
COMED_P4_111-38-L11106_	CONTINGENCY 'COMED_P4_111-38-L11106_' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 271558 CKT 1 / GLIDD;BT 138 GLIDD; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 272728 CKT 1 / GLIDD;BT 138 WATER; B 138 TRIP BRANCH FROM BUS 271586 TO BUS 272114 CKT 1 / W541 ; B 138 N AUR; B 138 TRIP BRANCH FROM BUS 272114 TO BUS 272522 CKT 1 / N AUR; B 138 SUGAR; B 138 TRIP BRANCH FROM BUS 272522 TO BUS 271560 CKT 1 / SUGAR; B 138 GLIDD;BT 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 TRIP BRANCH FROM BUS 271390 TO BUS 272724 CKT 1 / ELECT; B 138 WARRE;BT 138 TRIP BRANCH FROM BUS 271390 TO BUS 275239 CKT 1 / ELECT; B 138 ELECT;2M 138 DISCONNECT BUS 271560 / GLIDD;BT 138 DISCONNECT BUS 272522 / SUGAR; B 138 REMOVE SWSHUNT FROM BUS 271390 / ELEC JUNC; B 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_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

Contingency Name	Contingency Definition
COMED_P2-1_094-L11323__	CONTINGENCY 'COMED_P2-1_094-L11323__' TRIP BRANCH FROM BUS 271680 TO BUS 272756 CKT 1 / HAUME; B 138 W DEK;3T 138 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
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_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
AEP_P1-2_#697A	CONTINGENCY 'AEP_P1-2_#697A' OPEN BRANCH FROM BUS 243229 TO BUS 274804 CKT 1 / 243229 05OLIVE 345 274804 UNIV PK N;RP 345 1 END
COMED_P7_138-L11106_B-R_+_345-L15502_B-R	CONTINGENCY 'COMED_P7_138-L11106_B-R_+_345-L15502_B-R' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 271558 CKT 1 / GLIDD;BT 138 GLIDD; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 272728 CKT 1 / GLIDD;BT 138 WATER; B 138 TRIP BRANCH FROM BUS 271586 TO BUS 272114 CKT 1 / W541 ; B 138 N AUR; B 138 TRIP BRANCH FROM BUS 272114 TO BUS 272522 CKT 1 / N AUR; B 138 SUGAR; B 138 TRIP BRANCH FROM BUS 272522 TO BUS 271560 CKT 1 / SUGAR; B 138 GLIDD;BT 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 TRIP BRANCH FROM BUS 270828 TO BUS 270730 CKT 1 / NELSON ; B 345 ELEC JUNC; B 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

Contingency Name	Contingency Definition
COMED_P4_144-45-BT6-7__	CONTINGENCY 'COMED_P4_144-45-BT6-7__' TRIP BRANCH FROM BUS 270730 TO BUS 270916 CKT 1 / ELEC JUNC; B 345 WAYNE ; B 345 TRIP BRANCH FROM BUS 270916 TO BUS 270917 CKT 1 / WAYNE ; B 345 WAYNE ; R 345 TRIP BRANCH FROM BUS 270916 TO BUS 270900 CKT 1 / WAYNE ; B 345 TOLLWAY ; B 345 DISCONNECT BUS 275228 / WAYNE ;1M 138 END
Base Case	
COMED_P1-2_765-L11216__-S	CONTINGENCY 'COMED_P1-2_765-L11216__-S' TRIP BRANCH FROM BUS 270644 TO BUS 270607 CKT 1 / WILTO; 765 COLLI; 765 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_#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_138-L11323_R-R	CONTINGENCY 'COMED_P1-2_138-L11323_R-R' TRIP BRANCH FROM BUS 271680 TO BUS 272756 CKT 1 / HAUME; B 138 W DEK;3T 138 TRIP BRANCH FROM BUS 272730 TO BUS 271558 CKT 1 / WATER;3B 138 GLIDD; B 138 TRIP BRANCH FROM BUS 272730 TO BUS 272728 CKT 1 / WATER;3B 138 WATER; B 138 TRIP BRANCH FROM BUS 272756 TO BUS 272730 CKT 1 / W DEK;3T 138 WATER;3B 138 TRIP BRANCH FROM BUS 272756 TO BUS 272759 CKT 1 / W DEK;3T 138 W DEK;4R 138 MOVE 100 PERCENT LOAD FROM BUS 272759 TO BUS 272761 / W DEK;4R 138 W DEK;7R 138 END
AEP_P4_#8805_05OLIVE 345_D	CONTINGENCY 'AEP_P4_#8805_05OLIVE 345_D' OPEN BRANCH FROM BUS 243229 TO BUS 932600 CKT 1 / 243229 05OLIVE 345 932600 AC2-080 TAP 345 1 /* CONTINGENCY LINE ADDED FOR AE1 BUILD OPEN BRANCH FROM BUS 243229 TO BUS 274804 CKT 1 / 243229 05OLIVE 345 274804 UNIV PK N;RP 345 1 END
COMED_P4_112-65-BT2-3__	CONTINGENCY 'COMED_P4_112-65-BT2-3__' TRIP BRANCH FROM BUS 270644 TO BUS 270607 CKT 1 / WILTO; 765 COLLI; 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_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_112-65-BT5-6__	CONTINGENCY 'COMED_P4_112-65-BT5-6__' TRIP BRANCH FROM BUS 270644 TO BUS 270607 CKT 1 / WILTO; 765 COLLI; 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
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.

Secondary Point of Interconnection

Interconnected Transmission Owner Scope of Work

Under this option, Queue Position AE1-114, a 150 MW wind facility, proposes to interconnect with the ComEd transmission system by tying into the 138kV bus at the Maryland TSS 124. The existing Maryland TSS 124 is not designed to accommodate a line termination. For that reason, this TSS has to be expanded to create a line termination for the generator lead.

Summer Peak Load Flow

Generation Deliverability

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

None

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
344668	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	95.82	96.13	DC	42.28
670675	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	95.82	96.13	DC	42.28
670519	271978	MARYLAND ; B	CE	272598	ESS B427 ;1T	CE	1	COMED_P4_113-38-L11323_	breaker	229.0	77.8	98.41	DC	47.2
670663	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	71.44	DC	29.11
670080	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P2-2_111_EJ-138B__2	bus	331.0	77.09	78.32	DC	9.02
670480	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P4_111-38-TR82___	breaker	309.0	82.58	83.89	DC	9.02
670481	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P4_111-38-L11106_	breaker	331.0	77.09	78.32	DC	9.02
671735	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P7_138-L11106_B-R_+_345-L15502_B-R	tower	331.0	88.39	89.78	DC	10.19
670665	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	71.44	DC	29.11

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
670567	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	101.75	102.06	DC	11.43
670401	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	106.92	107.35	DC	12.69
670402	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.38	109.78	DC	12.79
670403	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	107.16	107.58	DC	12.76
670404	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	107.15	107.58	DC	12.76

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
344040	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	172.06	172.41	DC	19.83
345893	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	102.62	102.88	DC	45.62
345894	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	101.72	102.01	DC	45.69
671768	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	102.62	102.88	DC	45.62
671769	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	101.72	102.01	DC	45.69
670572	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	111.53	111.84	DC	16.62
670623	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P4_144-45-BT6-8__	breaker	1479.0	112.39	113.16	DC	24.52
670624	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	112.27	113.04	DC	24.52
670551	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	108.84	109.32	DC	18.03
670552	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	108.54	109.01	DC	18.18
670553	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	108.46	108.93	DC	18.12
670554	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	108.45	108.92	DC	18.12
670462	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P4_144-45-BT6-8__	breaker	1479.0	126.61	127.38	DC	24.52
670463	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	126.49	127.26	DC	24.52
344304	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	114.3	114.66	DC	11.43
670443	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	114.3	114.66	DC	11.43
670396	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	132.33	133.95	DC	26.33
670397	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-2__	breaker	1656.0	127.8	129.53	DC	27.98
670398	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_937-45-BT1-4__	breaker	1656.0	127.45	129.17	DC	27.99
670406	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	106.92	107.35	DC	12.69
670407	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.38	109.78	DC	12.79
670408	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	107.16	107.58	DC	12.76
670409	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	107.15	107.58	DC	12.76
670267	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.15	DC	21.09
670269	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.19	162.56	DC	21.54
670517	271978	MARYLAND ; B	CE	272598	ESS B427 ;1T	CE	1	COMED_P4_006-45-BT3-4__	breaker	215.0	101.07	122.95	DC	47.05
670299	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	121.94	122.46	DC	17.8
670300	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	121.35	121.87	DC	17.94
670301	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	121.28	121.8	DC	17.88
670302	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	121.28	121.8	DC	17.88
344173	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.71	133.18	DC	13.85

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
344174	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	130.46	130.98	DC	13.96
344175	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	131.46	131.93	DC	13.94
344176	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	131.46	131.93	DC	13.94
344177	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	131.46	131.93	DC	13.94
670361	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.71	133.18	DC	13.85
670362	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	130.46	130.98	DC	13.96
670363	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	131.46	131.93	DC	13.94
670364	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	131.46	131.93	DC	13.94
670365	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	131.46	131.93	DC	13.94
670266	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.15	DC	21.09
670271	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.19	162.56	DC	21.54

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
671282	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P1-2_#695A	operation	1091.0	100.44	100.76	DC	11.53
671109	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P1-2_#695A	operation	1091.0	107.14	107.57	DC	12.76
344864	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P1-2_#695A	operation	1409.0	168.49	168.86	DC	20.27
345393	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	104.73	104.98	DC	39.31
345394	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	95.78	96.09	DC	42.3
671355	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	104.73	104.98	DC	39.31
671356	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	95.78	96.09	DC	42.3
671281	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P1-2_#695A	operation	1441.0	110.69	111.0	DC	16.71

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
671341	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P1-2_345-L0626__B-R-C	operation	1479.0	111.82	112.59	DC	24.71
671259	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P1-2_#695A	operation	1399.0	108.41	108.88	DC	18.1
671166	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P1-2_345-L0626__B-R-C	operation	1479.0	126.29	127.07	DC	24.71
671169	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	Base Case	operation	1201.0	114.06	114.78	DC	18.71
345109	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	112.84	113.2	DC	11.53
671158	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	112.84	113.2	DC	11.53
671153	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P1-2_345-L15501_B-R	operation	1656.0	127.42	129.15	DC	27.99
671154	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	Base Case	operation	1334.0	105.83	106.64	DC	23.77
671105	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P1-2_#695A	operation	1091.0	107.14	107.57	DC	12.76
671354	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P1-2_765-L11216__-S	operation	1379.0	104.61	104.84	DC	13.89
671379	271978	MARYLAND ; B	CE	272598	ESS B427 ;1T	CE	1	COMED_P2-1_094-L11323__	operation	215.0	82.58	104.55	DC	47.23
671380	271978	MARYLAND ; B	CE	272598	ESS B427 ;1T	CE	1	COMED_P1-2_138-L11323_R-R	operation	215.0	82.59	104.55	DC	47.22
671387	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	66.75	70.71	DC	18.98
671422	272365	ESS H440 ;RT	CE	272516	STEWARD ; B	CE	1	Base Case	operation	351.0	100.03	101.35	DC	10.23
671374	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P1-2_138-L11106_B-R	operation	309.0	81.07	82.38	DC	8.97
671027	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P1-2_#695A	operation	1399.0	121.24	121.76	DC	17.86
345034	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.44	131.92	DC	13.94
671087	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.44	131.92	DC	13.94
671388	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P1-2_138-L15518GB-R-A	operation	480.0	66.73	70.68	DC	18.98

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
671769	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	101.72	102.01	DC	45.69

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	32.21
274722	S-055 E	29.58
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	28.1
274859	EASYR;U1 E	29.17
274860	EASYR;U2 E	29.17
274888	PILOT HIL;1E	44.36
274890	CAYUG;1U E	36.12
274891	CAYUG;2U E	36.12
275149	KEMPTON ;1E	44.36
290021	O50 E	49.31
290051	GSG-6; E	28.12
290108	LEEDK;1U E	65.65
293061	N-015 E	41.27
293516	O-009 E1	23.83
293517	O-009 E2	12.1
293518	O-009 E3	13.33
293644	O22 E1	25.34
293645	O22 E2	49.19
293715	O-029 E	25.82
293716	O-029 E	14.15
293717	O-029 E	13.01
293771	O-035 E	16.52
294392	P-010 E	52.41
294401	BSHIL;1U E	22.13
294410	BSHIL;2U E	22.13
294763	P-046 E	24.91
295109	WESTBROOK E	15.05
295111	SUBLETTE E	6.88
296125	R-030 C3	9.32
296128	R-030 E3	37.3
296271	R-030 C2	9.21
296272	R-030 E2	36.85
296308	R-030 C1	9.21
296309	R-030 E1	36.85

Bus #	Bus	MW Impact
910542	X3-005 E	1.58
914641	Y2-103	118.34
915011	Y3-013 1	9.86
915021	Y3-013 2	9.86
915031	Y3-013 3	9.86
916211	Z1-072 E	12.5
916221	Z1-073 E	14.51
916502	Z1-106 E1	3.41
916504	Z1-106 E2	3.41
916512	Z1-107 E	6.53
916522	Z1-108 E	6.63
917502	Z2-087 E	48.2
918052	AA1-018 E	40.46
919221	AA1-146	46.56
919581	AA2-030	46.56
919621	AA2-039 C	5.39
919622	AA2-039 E	36.1
920272	AA2-123 E	6.51
924041	AB2-047 C O1	8.89
924042	AB2-047 E O1	59.51
924471	AB2-096	112.75
925161	AB2-173	8.3
925302	AB2-191 E	3.72
925581	AC1-033 C	3.62
925582	AC1-033 E	24.26
926311	AC1-109 1	5.22
926321	AC1-109 2	5.22
926331	AC1-110 1	5.13
926341	AC1-110 2	5.13
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	6.33
926821	AC1-168 C O1	2.99
926822	AC1-168 E O1	20.04
927091	AC1-204 1	184.51
927101	AC1-204 2	184.55
927201	AC1-214 C O1	5.3
927202	AC1-214 E O1	16.85
927451	AC1-142A 1	10.62
927461	AC1-142A 2	10.62
927511	AC1-113 1	3.17
927521	AC1-113 2	3.17
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

Bus #	Bus	MW Impact
927591	AC1-185 7	1.82
927601	AC1-185 8	1.82
930481	AB1-089	175.38
930501	AB1-091 O1	174.2
930741	AB1-122 1O1	195.19
930751	AB1-122 2O1	188.91
932881	AC2-115 1	6.33
932891	AC2-115 2	6.33
932921	AC2-116	2.22
932931	AC2-117	14.97
933341	AC2-147 C	2.31
933342	AC2-147 E	3.78
933411	AC2-154 C	6.02
933412	AC2-154 E	9.82
933431	AC2-156 C O1	2.64
933432	AC2-156 E O1	4.3
933911	AD1-013 C	4.95
933912	AD1-013 E	7.91
933931	AD1-016 C	2.48
933932	AD1-016 E	4.04
934051	AD1-031 C O1	7.36
934052	AD1-031 E O1	12.0
934101	AD1-039 1	19.13
934111	AD1-039 2	18.51
934401	AD1-064 C O1	8.57
934402	AD1-064 E O1	40.14
934431	AD1-067 C	0.35
934432	AD1-067 E	1.48
934651	AD1-096 C	2.37
934652	AD1-096 E	3.87
934701	AD1-098 C O1	18.49
934702	AD1-098 E O1	13.5
934721	AD1-100 C	51.1
934722	AD1-100 E	238.47
934871	AD1-116 C	2.36
934872	AD1-116 E	3.84
934881	AD1-117 C	14.25
934882	AD1-117 E	9.5
934971	AD1-129 C	2.41
934972	AD1-129 E	1.61
935001	AD1-133 C O1	56.03
935002	AD1-133 E O1	37.35
936291	AD2-038 C O1	5.87
936292	AD2-038 E O1	39.26
936371	AD2-047 C O1	5.39
936372	AD2-047 E O1	57.98
936461	AD2-060	6.34
936511	AD2-066 C O1	21.5
936512	AD2-066 E O1	14.33
936781	AD2-101 C	10.69
936782	AD2-101 E	50.05
936791	AD2-102 C	31.93

Bus #	Bus	MW Impact
936792	AD2-102 E	30.68
936961	AD2-130	1.41
937001	AD2-134 C	7.35
937002	AD2-134 E	30.37
937031	AD2-137 C O1	10.27
937032	AD2-137 E O1	48.06
937051	AD2-140 C O1	10.51
937052	AD2-140 E O1	49.22
937061	AD2-141 C O1	10.45
937062	AD2-141 E O1	49.28
937071	AD2-142 C O1	21.03
937072	AD2-142 E O1	98.44
937121	AD2-148 C O1	8.36
937122	AD2-148 E O1	39.16
937131	AD2-149 C O1	8.36
937132	AD2-149 E O1	39.16
937141	AD2-150 C O1	8.36
937142	AD2-150 E O1	39.16
937181	AD2-155 C O1	8.36
937182	AD2-155 E O1	39.16
937311	AD2-172 C	6.54
937312	AD2-172 E	9.03
937321	AD2-175 C	38.97
937322	AD2-175 E	25.98
937331	AD2-176 C O1	19.55
937332	AD2-176 E O1	13.03
937401	AD2-194 1	19.84
937411	AD2-194 2	19.85
937531	AD2-214 C	11.62
937532	AD2-214 E	5.47
938012	AE1-002 E O1	20.61
938511	AE1-070 1	23.31
938521	AE1-070 2	21.33
938851	AE1-113 C O1	21.78
938852	AE1-113 E O1	68.46
938861	AE1-114 C O1	9.47
938862	AE1-114 E O1	36.21
939051	AE1-134 1	3.62
939061	AE1-134 2	3.62
939321	AE1-163 C O1	14.71
939322	AE1-163 E O1	90.37
939351	AE1-166 C O1	26.3
939352	AE1-166 E O1	24.28
939401	AE1-172 C O1	16.59
939402	AE1-172 E O1	77.68
939631	AE1-193 C O1	17.98
939632	AE1-193 E O1	120.33
939681	AE1-198 C O1	53.39
939682	AE1-198 E O1	45.36
939691	AE1-199	6.43
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	23.32
939742	AE1-205 E O1	32.21
939861	AE1-222 1	215.56
939871	AE1-222 2	208.62
939921	AE1-228 C O1	27.06
939922	AE1-228 E O1	18.04
939961	AE1-233 C O1	6.29
939962	AE1-233 E O1	26.0
940101	AE1-252 C O1	27.09
940102	AE1-252 E O1	18.06
990901	L-005 E	20.34
AB2-013	AB2-013	41.13
AE1-033	AE1-033	47.76
BLUEG	BLUEG	16.6
CALDERWOOD	CALDERWOOD	0.21
CANNELTON	CANNELTON	0.24
CARR	CARR	1.95
CATAWBA	CATAWBA	0.78
CBM-S1	CBM-S1	3.58
CBM-W1	CBM-W1	77.21
CBM-W2	CBM-W2	141.69
CHEOAH	CHEOAH	0.22
CHILHOWEE	CHILHOWEE	0.06
DEARBORN	DEARBORN	6.39
ELMERSMITH	ELMERSMITH	0.25
G-007	G-007	5.48
GIBSON	GIBSON	0.07
HAMLET	HAMLET	2.97
MEC	MEC	98.4
O-066	O-066	18.45
RENSSELAER	RENSSELAER	1.54
SANTEETLA	SANTEETLA	0.07
TRIMBLE	TRIMBLE	1.97
WEC	WEC	20.97
Z1-043	Z1-043	73.98

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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
670517	271978	MARYLAND ; B	CE	272598	ESS B427 ;1T	CE	1	COMED_P4_006-45-BT3-4__	breaker	215.0	101.07	122.95	DC	47.05

Bus #	Bus	MW Impact
293715	O-029 E	4.98
293716	O-029 E	2.73
293717	O-029 E	2.51
295111	SUBLETTE E	2.03
933341	AC2-147 C	2.38
933342	AC2-147 E	3.89
934881	AD1-117 C	14.68
934882	AD1-117 E	9.79
938861	AE1-114 C O1	9.75
938862	AE1-114 E O1	37.29
CBM-N	CBM-N	0.03
CBM-S1	CBM-S1	0.62
CBM-S2	CBM-S2	0.19
CBM-W2	CBM-W2	7.29
CIN	CIN	0.22
CPLE	CPLE	0.06
DEARBORN	DEARBORN	0.03
G-007A	G-007A	0.09
IPL	IPL	0.12
LGEE	LGEE	0.05
MEC	MEC	4.67
NYISO	NYISO	0.11
O-066A	O-066A	0.04
VFT	VFT	0.24

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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
670663	272095	NELSON ; R	CE	275203	NELSON ;2M	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	71.44	DC	29.11

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
671735	272728	WATERMAN ; B	CE	272445	SANDWICH ; R	CE	1	COMED_P7_138-L11106_B-R_+_345-L15502_B-R	tower	331.0	88.39	89.78	DC	10.19

Bus #	Bus	MW Impact
272363	ESS H440 ; R	1.03
274850	MENDOTA H;RU	0.24
274855	GSG-6 ;RU	1.0
274872	LEE DEKAL;1U	2.79
290051	GSG-6; E	26.18
290108	LEEDK;1U E	75.87
295108	WESTBROOK C	0.35
295109	WESTBROOK E	14.02
295111	SUBLETTE E	1.92
916221	Z1-073 E	13.51
925301	AB2-191 C	0.38
925302	AB2-191 E	3.47
933341	AC2-147 C	0.52
933342	AC2-147 E	0.84
933911	AD1-013 C	4.7
933912	AD1-013 E	7.51
934431	AD1-067 C	0.33
934432	AD1-067 E	1.38
934651	AD1-096 C	0.51
934652	AD1-096 E	0.84
934701	AD1-098 C O1	16.59
934702	AD1-098 E O1	12.11
934881	AD1-117 C	3.18
934882	AD1-117 E	2.12
937001	AD2-134 C	6.84
937002	AD2-134 E	28.27
938861	AE1-114 C O1	2.11
938862	AE1-114 E O1	8.08
939691	AE1-199	6.11
939921	AE1-228 C O1	26.14
939922	AE1-228 E O1	17.43
939961	AE1-233 C O1	6.56
939962	AE1-233 E O1	27.09
BLUEG	BLUEG	0.43
CARR	CARR	0.05
CBM-S1	CBM-S1	0.54
CBM-S2	CBM-S2	0.04
CBM-W1	CBM-W1	5.38
CBM-W2	CBM-W2	8.54
DEARBORN	DEARBORN	0.21

Bus #	Bus	MW Impact
G-007	G-007	0.13
GIBSON	GIBSON	0.0
MEC	MEC	8.48
O-066	O-066	0.43
RENSSELAER	RENSSELAER	0.04
TILTON	TILTON	0.0
TRIMBLE	TRIMBLE	0.05
WEC	WEC	0.67

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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
670665	275203	NELSON ;2M	CE	270828	NELSON ; B	CE	1	COMED_P4_155-38-L15518_	breaker	520.0	65.84	71.44	DC	29.11

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
670567	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	101.75	102.06	DC	11.43

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	8.06
274722	S-055 E	7.52
274751	CRETE EC ;1U	1.93
274752	CRETE EC ;2U	1.93
274753	CRETE EC ;3U	1.93
274754	CRETE EC ;4U	1.93
274832	U4-027	7.11
274859	EASYR;U1 E	7.3
274860	EASYR;U2 E	7.3
274888	PILOT HIL;1E	12.4
274890	CAYUG;1U E	8.92
274891	CAYUG;2U E	8.92
275149	KEMPTON ;1E	12.4
290021	O50 E	12.98
290051	GSG-6; E	6.94
290108	LEEDK;1U E	16.14
293061	N-015 E	10.24
293516	O-009 E1	5.99
293517	O-009 E2	3.04
293518	O-009 E3	3.35
293644	O22 E1	7.24
293645	O22 E2	14.06
293715	O-029 E	6.47
293716	O-029 E	3.55
293717	O-029 E	3.26
294392	P-010 E	13.0
294763	P-046 E	6.23
295109	WESTBROOK E	3.72
295111	SUBLETTE E	1.72
910542	X3-005 E	0.52
914641	Y2-103	30.09
915011	Y3-013 1	2.51
915021	Y3-013 2	2.51
915031	Y3-013 3	2.51
916221	Z1-073 E	3.58
916502	Z1-106 E1	0.84
916504	Z1-106 E2	0.84
916512	Z1-107 E	1.71
916522	Z1-108 E	1.66
918052	AA1-018 E	10.62
919221	AA1-146	11.67

Bus #	Bus	MW Impact
919581	AA2-030	11.67
920272	AA2-123 E	1.63
924471	AB2-096	28.21
925161	AB2-173	2.08
925302	AB2-191 E	0.92
925881	AC1-067 O1	102.57
926311	AC1-109 1	1.27
926321	AC1-109 2	1.27
926331	AC1-110 1	1.27
926341	AC1-110 2	1.27
926351	AC1-111 1	0.51
926361	AC1-111 2	0.51
926371	AC1-111 3	0.51
926381	AC1-111 4	0.51
926391	AC1-111 5	0.51
926401	AC1-111 6	0.51
926431	AC1-114	1.58
926821	AC1-168 C O1	0.76
926822	AC1-168 E O1	5.08
927091	AC1-204 1	48.76
927101	AC1-204 2	48.73
927201	AC1-214 C O1	0.74
927202	AC1-214 E O1	2.34
927451	AC1-142A 1	2.83
927461	AC1-142A 2	2.83
927511	AC1-113 1	0.79
927521	AC1-113 2	0.79
927531	AC1-185 1	0.46
927541	AC1-185 2	0.46
927551	AC1-185 3	0.46
927561	AC1-185 4	0.46
927571	AC1-185 5	0.46
927581	AC1-185 6	0.46
927591	AC1-185 7	0.46
927601	AC1-185 8	0.46
930481	AB1-089	43.76
930501	AB1-091 O1	49.15
930741	AB1-122 1O1	47.58
930751	AB1-122 2O1	49.75
932881	AC2-115 1	1.58
932891	AC2-115 2	1.58
932921	AC2-116	0.55
933341	AC2-147 C	0.58
933342	AC2-147 E	0.94
933411	AC2-154 C	1.68
933412	AC2-154 E	2.75
933431	AC2-156 C O1	0.64
933432	AC2-156 E O1	1.04
933911	AD1-013 C	1.22
933912	AD1-013 E	1.95
933931	AD1-016 C	0.62
933932	AD1-016 E	1.01

Bus #	Bus	MW Impact
934101	AD1-039 1	4.66
934111	AD1-039 2	4.88
934401	AD1-064 C O1	2.13
934402	AD1-064 E O1	9.99
934431	AD1-067 C	0.09
934432	AD1-067 E	0.37
934651	AD1-096 C	0.59
934652	AD1-096 E	0.97
934701	AD1-098 C O1	4.57
934702	AD1-098 E O1	3.34
934721	AD1-100 C	12.94
934722	AD1-100 E	60.39
934871	AD1-116 C	0.62
934872	AD1-116 E	1.01
934881	AD1-117 C	3.57
934882	AD1-117 E	2.38
934971	AD1-129 C	0.6
934972	AD1-129 E	0.4
935001	AD1-133 C O1	13.73
935002	AD1-133 E O1	9.15
936291	AD2-038 C O1	1.54
936292	AD2-038 E O1	10.32
936371	AD2-047 C O1	1.51
936372	AD2-047 E O1	16.21
936461	AD2-060	1.77
936511	AD2-066 C O1	5.56
936512	AD2-066 E O1	3.71
936781	AD2-101 C	3.17
936782	AD2-101 E	14.84
936791	AD2-102 C	8.0
936792	AD2-102 E	7.69
936961	AD2-130	0.38
937001	AD2-134 C	1.82
937002	AD2-134 E	7.5
937031	AD2-137 C O1	2.31
937032	AD2-137 E O1	10.8
937051	AD2-140 C O1	2.32
937052	AD2-140 E O1	10.87
937061	AD2-141 C O1	2.31
937062	AD2-141 E O1	10.88
937071	AD2-142 C O1	4.64
937072	AD2-142 E O1	21.73
937121	AD2-148 C O1	2.36
937122	AD2-148 E O1	11.04
937131	AD2-149 C O1	2.36
937132	AD2-149 E O1	11.04
937141	AD2-150 C O1	2.36
937142	AD2-150 E O1	11.04
937181	AD2-155 C O1	2.36
937182	AD2-155 E O1	11.04
937311	AD2-172 C	1.64
937312	AD2-172 E	2.26

Bus #	Bus	MW Impact
937321	AD2-175 C	10.99
937322	AD2-175 E	7.33
937331	AD2-176 C O1	4.89
937332	AD2-176 E O1	3.26
937401	AD2-194 1	5.24
937411	AD2-194 2	5.24
937531	AD2-214 C	2.92
937532	AD2-214 E	1.37
938012	AE1-002 E O1	4.63
938511	AE1-070 1	6.16
938521	AE1-070 2	5.63
938851	AE1-113 C O1	5.72
938852	AE1-113 E O1	17.99
938861	AE1-114 C O1	2.37
938862	AE1-114 E O1	9.06
939051	AE1-134 1	0.91
939061	AE1-134 2	0.91
939321	AE1-163 C O1	4.03
939322	AE1-163 E O1	24.74
939351	AE1-166 C O1	6.84
939352	AE1-166 E O1	6.31
939401	AE1-172 C O1	4.1
939402	AE1-172 E O1	19.18
939641	AE1-194 C	10.88
939642	AE1-194 E	72.84
939651	AE1-195 C	10.88
939652	AE1-195 E	72.84
939691	AE1-199	1.59
939701	AE1-201 C	1.34
939702	AE1-201 E	0.29
939732	AE1-204 E	0.2
939861	AE1-222 1	52.55
939871	AE1-222 2	54.95
939921	AE1-228 C O1	6.68
939922	AE1-228 E O1	4.45
939961	AE1-233 C O1	1.55
939962	AE1-233 E O1	6.39
940101	AE1-252 C O1	6.69
940102	AE1-252 E O1	4.46
951721	J643	15.51
952581	J740 C	3.4
952582	J740 E	18.42
953871	J847	8.38
AB2-013	AB2-013	10.64
AE1-033	AE1-033	12.03
BLUEG	BLUEG	2.86
CANNELTON	CANNELTON	0.0
CARR	CARR	0.5
CATAWBA	CATAWBA	0.16
CBM-S1	CBM-S1	1.36
CBM-W1	CBM-W1	19.98
CBM-W2	CBM-W2	38.44

Bus #	Bus	MW Impact
CIN	CIN	0.12
DEARBORN	DEARBORN	2.29
G-007	G-007	1.38
HAMLET	HAMLET	0.65
MEC	MEC	25.05
O-066	O-066	4.65
RENSSELAER	RENSSELAER	0.39
SANTEETLA	SANTEETLA	0.0
TRIMBLE	TRIMBLE	0.34
WEC	WEC	5.32
Z1-043	Z1-043	18.82

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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
670402	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.38	109.78	DC	12.79

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.04
274654	BRAIDWOOD;1U	19.05
274655	BRAIDWOOD;2U	18.24
274661	LASCO STA;2U	17.6
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.88
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.88
274722	S-055 E	8.45
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274859	EASYR;U1 E	8.17
274860	EASYR;U2 E	8.17
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.74
274891	CAYUG;2U E	9.74
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.78
290108	LEEDK;1U E	18.09
293061	N-015 E	11.61
293516	O-009 E1	6.69
293517	O-009 E2	3.4
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.24
293716	O-029 E	3.97
293717	O-029 E	3.65
294392	P-010 E	14.75
294763	P-046 E	6.98
295109	WESTBROOK E	4.16
295111	SUBLETTE E	1.92
914641	Y2-103	33.8
915011	Y3-013 1	2.82

Bus #	Bus	MW Impact
915021	Y3-013 2	2.82
915031	Y3-013 3	2.82
916221	Z1-073 E	4.01
916502	Z1-106 E1	0.94
916504	Z1-106 E2	0.94
916512	Z1-107 E	1.85
916522	Z1-108 E	1.86
918052	AA1-018 E	11.64
919221	AA1-146	13.04
919581	AA2-030	13.04
920272	AA2-123 E	1.83
924471	AB2-096	31.63
925161	AB2-173	2.33
925302	AB2-191 E	1.03
926311	AC1-109 1	1.42
926321	AC1-109 2	1.42
926331	AC1-110 1	1.42
926341	AC1-110 2	1.42
926351	AC1-111 1	0.57
926361	AC1-111 2	0.57
926371	AC1-111 3	0.57
926381	AC1-111 4	0.57
926391	AC1-111 5	0.57
926401	AC1-111 6	0.57
926431	AC1-114	1.77
926821	AC1-168 C O1	0.85
926822	AC1-168 E O1	5.68
927091	AC1-204 1	55.19
927101	AC1-204 2	55.12
927451	AC1-142A 1	3.2
927461	AC1-142A 2	3.2
927511	AC1-113 1	0.89
927521	AC1-113 2	0.89
927531	AC1-185 1	0.51
927541	AC1-185 2	0.51
927551	AC1-185 3	0.51
927561	AC1-185 4	0.51
927571	AC1-185 5	0.51
927581	AC1-185 6	0.51
927591	AC1-185 7	0.51
927601	AC1-185 8	0.51
930481	AB1-089	49.05
930501	AB1-091 O1	50.61
930741	AB1-122 1O1	52.99
930751	AB1-122 2O1	56.33
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.06
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84

Bus #	Bus	MW Impact
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.19
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.19
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.2
934431	AD1-067 C	0.1
934432	AD1-067 E	0.41
934651	AD1-096 C	0.66
934652	AD1-096 E	1.08
934701	AD1-098 C O1	5.12
934702	AD1-098 E O1	3.74
934721	AD1-100 C	14.27
934722	AD1-100 E	66.6
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.99
934882	AD1-117 E	2.66
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.16
935002	AD1-133 E O1	10.11
936291	AD2-038 C O1	1.71
936292	AD2-038 E O1	11.45
936371	AD2-047 C O1	1.56
936372	AD2-047 E O1	16.75
936461	AD2-060	1.83
936511	AD2-066 C O1	6.19
936512	AD2-066 E O1	4.13
936781	AD2-101 C	3.09
936782	AD2-101 E	14.46
936791	AD2-102 C	8.96
936792	AD2-102 E	8.61
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.4
937031	AD2-137 C O1	2.44
937032	AD2-137 E O1	11.43
937051	AD2-140 C O1	2.44
937052	AD2-140 E O1	11.42
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.44
937071	AD2-142 C O1	4.88
937072	AD2-142 E O1	22.85
937121	AD2-148 C O1	2.43
937122	AD2-148 E O1	11.37
937131	AD2-149 C O1	2.43
937132	AD2-149 E O1	11.37

Bus #	Bus	MW Impact
937141	AD2-150 C O1	2.43
937142	AD2-150 E O1	11.37
937181	AD2-155 C O1	2.43
937182	AD2-155 E O1	11.37
937311	AD2-172 C	1.83
937312	AD2-172 E	2.53
937321	AD2-175 C	11.32
937322	AD2-175 E	7.55
937331	AD2-176 C O1	5.48
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	0.8
937532	AD2-214 E	0.38
938012	AE1-002 E O1	4.9
938511	AE1-070 1	6.97
938521	AE1-070 2	6.37
938851	AE1-113 C O1	6.35
938852	AE1-113 E O1	19.97
938861	AE1-114 C O1	2.65
938862	AE1-114 E O1	10.14
939051	AE1-134 1	1.01
939061	AE1-134 2	1.01
939321	AE1-163 C O1	4.63
939322	AE1-163 E O1	28.43
939351	AE1-166 C O1	7.6
939352	AE1-166 E O1	7.02
939401	AE1-172 C O1	4.47
939402	AE1-172 E O1	20.95
939641	AE1-194 C	18.96
939642	AE1-194 E	126.86
939651	AE1-195 C	18.96
939652	AE1-195 E	126.86
939691	AE1-199	1.78
939701	AE1-201 C	1.5
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.52
939871	AE1-222 2	62.2
939921	AE1-228 C O1	7.48
939922	AE1-228 E O1	4.99
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.16
940101	AE1-252 C O1	7.31
940102	AE1-252 E O1	4.87
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.47
BLUEG	BLUEG	5.05
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23

Bus #	Bus	MW Impact
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.04
CBM-W2	CBM-W2	37.14
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.14
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.58
O-066	O-066	5.3
RENSSELAER	RENSSELAER	0.45
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.97
Z1-043	Z1-043	20.98

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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
344040	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	172.06	172.41	DC	19.83

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
670572	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	111.53	111.84	DC	16.62

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	11.75
274722	S-055 E	10.96
274723	RIVER EC ;12	4.32
274792	SE CHICAG;9U	0.96
274793	SE CHICAG;0U	0.96
274794	SE CHICAG;1U	0.96
274795	SE CHICAG;2U	0.96
274832	U4-027	10.31
274859	EASYR;U1 E	10.61
274860	EASYR;U2 E	10.61
274888	PILOT HIL;1E	20.48
274890	CAYUG;1U E	13.4
274891	CAYUG;2U E	13.4
275149	KEMPTON ;1E	20.48
290021	O50 E	18.57
290051	GSG-6; E	10.13
290108	LEEDK;1U E	23.57
293061	N-015 E	14.82
293516	O-009 E1	8.7
293517	O-009 E2	4.42
293518	O-009 E3	4.87
293644	O22 E1	9.26
293645	O22 E2	17.98
293715	O-029 E	9.4
293716	O-029 E	5.15
293717	O-029 E	4.74
293771	O-035 E	6.09
294392	P-010 E	18.82
294763	P-046 E	9.07
295109	WESTBROOK E	5.42
295111	SUBLETTE E	2.5
296125	R-030 C3	3.43
296128	R-030 E3	13.71
296271	R-030 C2	3.39
296272	R-030 E2	13.54
296308	R-030 C1	3.39
296309	R-030 E1	13.54
910541	X3-005 C	0.08
910542	X3-005 E	0.91
914641	Y2-103	43.82
915011	Y3-013 1	3.65

Bus #	Bus	MW Impact
915021	Y3-013 2	3.65
915031	Y3-013 3	3.65
916211	Z1-072 E	4.61
916221	Z1-073 E	5.23
916502	Z1-106 E1	1.23
916504	Z1-106 E2	1.23
916512	Z1-107 E	2.58
916522	Z1-108 E	2.42
917502	Z2-087 E	8.96
918052	AA1-018 E	16.81
919221	AA1-146	16.93
919581	AA2-030	16.93
920272	AA2-123 E	2.37
924471	AB2-096	41.11
925161	AB2-173	3.02
925302	AB2-191 E	1.34
925881	AC1-067 O1	301.08
926311	AC1-109 1	1.86
926321	AC1-109 2	1.86
926331	AC1-110 1	1.85
926341	AC1-110 2	1.85
926351	AC1-111 1	0.75
926361	AC1-111 2	0.75
926371	AC1-111 3	0.75
926381	AC1-111 4	0.75
926391	AC1-111 5	0.75
926401	AC1-111 6	0.75
926431	AC1-114	2.31
926821	AC1-168 C O1	1.1
926822	AC1-168 E O1	7.36
927091	AC1-204 1	70.09
927101	AC1-204 2	70.14
927201	AC1-214 C O1	1.95
927202	AC1-214 E O1	6.21
927451	AC1-142A 1	4.09
927461	AC1-142A 2	4.09
927511	AC1-113 1	1.15
927521	AC1-113 2	1.15
927531	AC1-185 1	0.66
927541	AC1-185 2	0.66
927551	AC1-185 3	0.66
927561	AC1-185 4	0.66
927571	AC1-185 5	0.66
927581	AC1-185 6	0.66
927591	AC1-185 7	0.66
927601	AC1-185 8	0.66
930481	AB1-089	63.73
930501	AB1-091 O1	82.27
930741	AB1-122 1O1	70.02
930751	AB1-122 2O1	70.99
932881	AC2-115 1	2.31
932891	AC2-115 2	2.31

Bus #	Bus	MW Impact
932921	AC2-116	0.81
932931	AC2-117	5.3
933341	AC2-147 C	0.84
933342	AC2-147 E	1.37
933411	AC2-154 C	2.78
933412	AC2-154 E	4.53
933431	AC2-156 C O1	0.93
933432	AC2-156 E O1	1.52
933911	AD1-013 C	1.78
933912	AD1-013 E	2.85
933931	AD1-016 C	0.9
933932	AD1-016 E	1.47
934101	AD1-039 1	6.86
934111	AD1-039 2	6.96
934401	AD1-064 C O1	3.11
934402	AD1-064 E O1	14.56
934431	AD1-067 C	0.13
934432	AD1-067 E	0.53
934651	AD1-096 C	0.86
934652	AD1-096 E	1.41
934701	AD1-098 C O1	6.66
934702	AD1-098 E O1	4.86
934721	AD1-100 C	19.54
934722	AD1-100 E	91.19
934871	AD1-116 C	0.98
934872	AD1-116 E	1.6
934881	AD1-117 C	5.18
934882	AD1-117 E	3.46
934971	AD1-129 C	0.88
934972	AD1-129 E	0.58
935001	AD1-133 C O1	20.3
935002	AD1-133 E O1	13.53
936291	AD2-038 C O1	2.33
936292	AD2-038 E O1	15.58
936371	AD2-047 C O1	2.49
936372	AD2-047 E O1	26.77
936461	AD2-060	2.93
936511	AD2-066 C O1	8.14
936512	AD2-066 E O1	5.43
936781	AD2-101 C	4.75
936782	AD2-101 E	22.22
936791	AD2-102 C	11.64
936792	AD2-102 E	11.19
936961	AD2-130	0.56
937001	AD2-134 C	2.65
937002	AD2-134 E	10.94
937031	AD2-137 C O1	3.67
937032	AD2-137 E O1	17.17
937051	AD2-140 C O1	3.72
937052	AD2-140 E O1	17.42
937061	AD2-141 C O1	3.7
937062	AD2-141 E O1	17.44

Bus #	Bus	MW Impact
937071	AD2-142 C O1	7.44
937072	AD2-142 E O1	34.83
937121	AD2-148 C O1	3.94
937122	AD2-148 E O1	18.43
937131	AD2-149 C O1	3.94
937132	AD2-149 E O1	18.43
937141	AD2-150 C O1	3.94
937142	AD2-150 E O1	18.43
937181	AD2-155 C O1	3.94
937182	AD2-155 E O1	18.43
937311	AD2-172 C	2.38
937312	AD2-172 E	3.29
937321	AD2-175 C	18.34
937322	AD2-175 E	12.23
937331	AD2-176 C O1	7.12
937332	AD2-176 E O1	4.75
937401	AD2-194 1	7.54
937411	AD2-194 2	7.54
937531	AD2-214 C	4.24
937532	AD2-214 E	1.99
938012	AE1-002 E O1	7.36
938511	AE1-070 1	8.86
938521	AE1-070 2	8.11
938851	AE1-113 C O1	8.65
938852	AE1-113 E O1	27.18
938861	AE1-114 C O1	3.45
938862	AE1-114 E O1	13.17
939051	AE1-134 1	1.32
939061	AE1-134 2	1.32
939321	AE1-163 C O1	5.47
939322	AE1-163 E O1	33.6
939351	AE1-166 C O1	10.23
939352	AE1-166 E O1	9.45
939401	AE1-172 C O1	6.18
939402	AE1-172 E O1	28.94
939691	AE1-199	2.32
939701	AE1-201 C	1.95
939702	AE1-201 E	0.43
939732	AE1-204 E	0.28
939741	AE1-205 C O1	8.57
939742	AE1-205 E O1	11.84
939861	AE1-222 1	77.33
939871	AE1-222 2	78.4
939921	AE1-228 C O1	9.74
939922	AE1-228 E O1	6.49
939961	AE1-233 C O1	2.26
939962	AE1-233 E O1	9.34
940101	AE1-252 C O1	10.05
940102	AE1-252 E O1	6.7
AB2-013	AB2-013	15.32
AE1-033	AE1-033	17.49
BLUEG	BLUEG	5.47

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.06
CANNELTON	CANNELTON	0.08
CARR	CARR	0.73
CATAWBA	CATAWBA	0.27
CBM-S1	CBM-S1	1.44
CBM-W1	CBM-W1	23.88
CBM-W2	CBM-W2	51.81
CHEOAH	CHEOAH	0.06
CHILHOWEE	CHILHOWEE	0.02
DEARBORN	DEARBORN	2.93
ELMERSMITH	ELMERSMITH	0.08
G-007	G-007	2.03
GIBSON	GIBSON	0.04
HAMLET	HAMLET	1.05
MEC	MEC	36.09
O-066	O-066	6.84
RENSSELAER	RENSSELAER	0.58
SANTEETLA	SANTEETLA	0.02
TRIMBLE	TRIMBLE	0.65
WEC	WEC	7.74
Z1-043	Z1-043	27.27

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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
670624	270694	CHERRY VA; B	CE	270759	GARDEN PR; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	112.27	113.04	DC	24.52

Bus #	Bus	MW Impact
274656	BYRON ;1U	46.39
274657	BYRON ;2U	45.43
274765	LEE CO EC;6U	2.17
274822	ROCKFORD ;11	3.97
274823	ROCKFORD ;21	4.07
274824	ROCKFORD ;12	3.93
274856	ECOGROVE ;U1	0.65
274859	EASYR;U1 E	17.08
274860	EASYR;U2 E	17.08
290051	GSG-6; E	8.84
290108	LEEDK;1U E	17.56
290266	R-018	0.24
293516	O-009 E1	8.41
293517	O-009 E2	4.27
293518	O-009 E3	4.71
293715	O-029 E	10.61
293716	O-029 E	5.82
293717	O-029 E	5.34
294763	P-046 E	16.98
295109	WESTBROOK E	4.73
295111	SUBLETTE E	3.1
907361	X1-087	0.5
916221	Z1-073 E	4.56
916522	Z1-108 E	2.09
919221	AA1-146	20.14
919581	AA2-030	20.14
925161	AB2-173	3.59
925302	AB2-191 E	1.17
926431	AC1-114	4.92
927511	AC1-113 1	2.46
927521	AC1-113 2	2.46
927531	AC1-185 1	1.07
927541	AC1-185 2	1.07
927551	AC1-185 3	1.07
927561	AC1-185 4	1.07
927571	AC1-185 5	1.07
927581	AC1-185 6	1.07
927591	AC1-185 7	1.07
927601	AC1-185 8	1.07
930481	AB1-089	139.46
932881	AC2-115 1	4.92

Bus #	Bus	MW Impact
932891	AC2-115 2	4.92
932921	AC2-116	1.72
933341	AC2-147 C	1.24
933342	AC2-147 E	2.03
933911	AD1-013 C	1.54
933912	AD1-013 E	2.46
934401	AD1-064 C O1	6.69
934402	AD1-064 E O1	31.34
934431	AD1-067 C	0.11
934432	AD1-067 E	0.47
934651	AD1-096 C	1.62
934652	AD1-096 E	2.65
934701	AD1-098 C O1	5.94
934702	AD1-098 E O1	4.34
934881	AD1-117 C	7.65
934882	AD1-117 E	5.1
934971	AD1-129 C	1.29
934972	AD1-129 E	0.86
936791	AD2-102 C	24.01
936792	AD2-102 E	23.07
937001	AD2-134 C	2.31
937002	AD2-134 E	9.55
937311	AD2-172 C	4.46
937312	AD2-172 E	6.15
937531	AD2-214 C	4.55
937532	AD2-214 E	2.14
938861	AE1-114 C O1	5.08
938862	AE1-114 E O1	19.43
939051	AE1-134 1	1.56
939061	AE1-134 2	1.56
939691	AE1-199	2.0
939921	AE1-228 C O1	8.31
939922	AE1-228 E O1	5.54
939961	AE1-233 C O1	1.91
939962	AE1-233 E O1	7.9
950081	J384	2.65
950101	J390	84.74
950142	J395 E	9.13
952431	J760	5.35
952511	J584 C	1.07
952512	J584 E	5.79
953111	J807 C	0.6
953112	J807 E	3.25
953681	J818	14.31
953691	J819 C	1.51
953692	J819 E	8.14
953731	J825 C	1.71
953732	J825 E	9.27
953901	J850	21.09
954001	J864	4.45
AE1-033	AE1-033	23.4
BLUEG	BLUEG	1.78

Bus #	Bus	MW Impact
CANNELTON	CANNELTON	0.02
CARR	CARR	0.17
CATAWBA	CATAWBA	0.0
CBM-S1	CBM-S1	1.46
CBM-S2	CBM-S2	0.0
CBM-W1	CBM-W1	17.68
CBM-W2	CBM-W2	24.71
DEARBORN	DEARBORN	0.74
ELMERSMITH	ELMERSMITH	0.0
G-007	G-007	0.48
GIBSON	GIBSON	0.04
HAMLET	HAMLET	0.07
MEC	MEC	27.49
O-066	O-066	1.61
RENSSELAER	RENSSELAER	0.14
TILTON	TILTON	0.12
TRIMBLE	TRIMBLE	0.21
WEC	WEC	0.44

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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
670552	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	108.54	109.01	DC	18.18

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
670463	270759	GARDEN PR; R	CE	270883	SILVER LK; R	CE	1	COMED_P4_144-45-BT6-7__	breaker	1479.0	126.49	127.26	DC	24.52

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	48.94
274656	BYRON ;1U	46.39
274657	BYRON ;2U	45.43
274822	ROCKFORD ;11	3.97
274823	ROCKFORD ;21	4.07
274824	ROCKFORD ;12	3.93
274859	EASYR;U1 E	17.08
274860	EASYR;U2 E	17.08
290051	GSG-6; E	8.84
290108	LEEDK;1U E	17.56
290266	R-018	0.24
293516	O-009 E1	8.41
293517	O-009 E2	4.27
293518	O-009 E3	4.71
293715	O-029 E	10.61
293716	O-029 E	5.82
293717	O-029 E	5.34
294763	P-046 E	16.98
295109	WESTBROOK E	4.73
295111	SUBLETTE E	3.1
916221	Z1-073 E	4.56
916522	Z1-108 E	2.09
919221	AA1-146	20.14
919581	AA2-030	20.14
924471	AB2-096	171.28
925161	AB2-173	3.59
925302	AB2-191 E	1.17
926431	AC1-114	4.92
927511	AC1-113 1	2.46
927521	AC1-113 2	2.46
927531	AC1-185 1	1.07
927541	AC1-185 2	1.07
927551	AC1-185 3	1.07
927561	AC1-185 4	1.07
927571	AC1-185 5	1.07
927581	AC1-185 6	1.07
927591	AC1-185 7	1.07
927601	AC1-185 8	1.07
930481	AB1-089	139.46
932881	AC2-115 1	4.92
932891	AC2-115 2	4.92

Bus #	Bus	MW Impact
932921	AC2-116	1.72
933341	AC2-147 C	1.24
933342	AC2-147 E	2.03
933911	AD1-013 C	1.54
933912	AD1-013 E	2.46
934401	AD1-064 C O1	6.69
934402	AD1-064 E O1	31.34
934431	AD1-067 C	0.11
934432	AD1-067 E	0.47
934651	AD1-096 C	1.62
934652	AD1-096 E	2.65
934701	AD1-098 C O1	5.94
934702	AD1-098 E O1	4.34
934881	AD1-117 C	7.65
934882	AD1-117 E	5.1
934971	AD1-129 C	1.29
934972	AD1-129 E	0.86
936791	AD2-102 C	24.01
936792	AD2-102 E	23.07
937001	AD2-134 C	2.31
937002	AD2-134 E	9.55
937311	AD2-172 C	4.46
937312	AD2-172 E	6.15
937531	AD2-214 C	4.55
937532	AD2-214 E	2.14
938861	AE1-114 C O1	5.08
938862	AE1-114 E O1	19.43
939051	AE1-134 1	1.56
939061	AE1-134 2	1.56
939691	AE1-199	2.0
939921	AE1-228 C O1	8.31
939922	AE1-228 E O1	5.54
939961	AE1-233 C O1	1.91
939962	AE1-233 E O1	7.9
950081	J384	2.65
950101	J390	84.74
950142	J395 E	9.13
952431	J760	5.35
952511	J584 C	1.07
952512	J584 E	5.79
953111	J807 C	0.6
953112	J807 E	3.25
953681	J818	14.31
953691	J819 C	1.51
953692	J819 E	8.14
953731	J825 C	1.71
953732	J825 E	9.27
953901	J850	21.09
954001	J864	4.45
AE1-033	AE1-033	23.4
BLUEG	BLUEG	1.78
CANNELTON	CANNELTON	0.02

Bus #	Bus	MW Impact
CARR	CARR	0.17
CATAWBA	CATAWBA	0.0
CBM-S1	CBM-S1	1.46
CBM-S2	CBM-S2	0.0
CBM-W1	CBM-W1	17.68
CBM-W2	CBM-W2	24.71
DEARBORN	DEARBORN	0.74
ELMERSMITH	ELMERSMITH	0.0
G-007	G-007	0.48
GIBSON	GIBSON	0.04
HAMLET	HAMLET	0.07
MEC	MEC	27.49
O-066	O-066	1.61
RENSSELAER	RENSSELAER	0.14
TILTON	TILTON	0.12
TRIMBLE	TRIMBLE	0.21
WEC	WEC	0.44

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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
670443	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	114.3	114.66	DC	11.43

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	8.06
274722	S-055 E	7.52
274751	CRETE EC ;1U	1.93
274752	CRETE EC ;2U	1.93
274753	CRETE EC ;3U	1.93
274754	CRETE EC ;4U	1.93
274832	U4-027	7.11
274859	EASYR;U1 E	7.3
274860	EASYR;U2 E	7.3
274888	PILOT HIL;1E	12.4
274890	CAYUG;1U E	8.92
274891	CAYUG;2U E	8.92
275149	KEMPTON ;1E	12.4
290021	O50 E	12.98
290051	GSG-6; E	6.94
290108	LEEDK;1U E	16.14
293061	N-015 E	10.24
293516	O-009 E1	5.99
293517	O-009 E2	3.04
293518	O-009 E3	3.35
293644	O22 E1	7.24
293645	O22 E2	14.06
293715	O-029 E	6.47
293716	O-029 E	3.55
293717	O-029 E	3.26
294392	P-010 E	13.0
294763	P-046 E	6.23
295109	WESTBROOK E	3.72
295111	SUBLETTE E	1.72
910542	X3-005 E	0.52
914641	Y2-103	30.09
915011	Y3-013 1	2.51
915021	Y3-013 2	2.51
915031	Y3-013 3	2.51
916221	Z1-073 E	3.58
916502	Z1-106 E1	0.84
916504	Z1-106 E2	0.84
916512	Z1-107 E	1.71
916522	Z1-108 E	1.66
918052	AA1-018 E	10.62
919221	AA1-146	11.67

Bus #	Bus	MW Impact
919581	AA2-030	11.67
920272	AA2-123 E	1.63
924471	AB2-096	28.21
925161	AB2-173	2.08
925302	AB2-191 E	0.92
925881	AC1-067 O1	102.57
926311	AC1-109 1	1.27
926321	AC1-109 2	1.27
926331	AC1-110 1	1.27
926341	AC1-110 2	1.27
926351	AC1-111 1	0.51
926361	AC1-111 2	0.51
926371	AC1-111 3	0.51
926381	AC1-111 4	0.51
926391	AC1-111 5	0.51
926401	AC1-111 6	0.51
926431	AC1-114	1.58
926821	AC1-168 C O1	0.76
926822	AC1-168 E O1	5.08
927091	AC1-204 1	48.76
927101	AC1-204 2	48.73
927201	AC1-214 C O1	0.74
927202	AC1-214 E O1	2.34
927451	AC1-142A 1	2.83
927461	AC1-142A 2	2.83
927511	AC1-113 1	0.79
927521	AC1-113 2	0.79
927531	AC1-185 1	0.46
927541	AC1-185 2	0.46
927551	AC1-185 3	0.46
927561	AC1-185 4	0.46
927571	AC1-185 5	0.46
927581	AC1-185 6	0.46
927591	AC1-185 7	0.46
927601	AC1-185 8	0.46
930481	AB1-089	43.76
930501	AB1-091 O1	49.15
930741	AB1-122 1O1	47.58
930751	AB1-122 2O1	49.75
932881	AC2-115 1	1.58
932891	AC2-115 2	1.58
932921	AC2-116	0.55
933341	AC2-147 C	0.58
933342	AC2-147 E	0.94
933411	AC2-154 C	1.68
933412	AC2-154 E	2.75
933431	AC2-156 C O1	0.64
933432	AC2-156 E O1	1.04
933911	AD1-013 C	1.22
933912	AD1-013 E	1.95
933931	AD1-016 C	0.62
933932	AD1-016 E	1.01

Bus #	Bus	MW Impact
934101	AD1-039 1	4.66
934111	AD1-039 2	4.88
934401	AD1-064 C O1	2.13
934402	AD1-064 E O1	9.99
934431	AD1-067 C	0.09
934432	AD1-067 E	0.37
934651	AD1-096 C	0.59
934652	AD1-096 E	0.97
934701	AD1-098 C O1	4.57
934702	AD1-098 E O1	3.34
934721	AD1-100 C	12.94
934722	AD1-100 E	60.39
934871	AD1-116 C	0.62
934872	AD1-116 E	1.01
934881	AD1-117 C	3.57
934882	AD1-117 E	2.38
934971	AD1-129 C	0.6
934972	AD1-129 E	0.4
935001	AD1-133 C O1	13.73
935002	AD1-133 E O1	9.15
936291	AD2-038 C O1	1.54
936292	AD2-038 E O1	10.32
936371	AD2-047 C O1	1.51
936372	AD2-047 E O1	16.21
936461	AD2-060	1.77
936511	AD2-066 C O1	5.56
936512	AD2-066 E O1	3.71
936781	AD2-101 C	3.17
936782	AD2-101 E	14.84
936791	AD2-102 C	8.0
936792	AD2-102 E	7.69
936961	AD2-130	0.38
937001	AD2-134 C	1.82
937002	AD2-134 E	7.5
937031	AD2-137 C O1	2.31
937032	AD2-137 E O1	10.8
937051	AD2-140 C O1	2.32
937052	AD2-140 E O1	10.87
937061	AD2-141 C O1	2.31
937062	AD2-141 E O1	10.88
937071	AD2-142 C O1	4.64
937072	AD2-142 E O1	21.73
937121	AD2-148 C O1	2.36
937122	AD2-148 E O1	11.04
937131	AD2-149 C O1	2.36
937132	AD2-149 E O1	11.04
937141	AD2-150 C O1	2.36
937142	AD2-150 E O1	11.04
937181	AD2-155 C O1	2.36
937182	AD2-155 E O1	11.04
937311	AD2-172 C	1.64
937312	AD2-172 E	2.26

Bus #	Bus	MW Impact
937321	AD2-175 C	10.99
937322	AD2-175 E	7.33
937331	AD2-176 C O1	4.89
937332	AD2-176 E O1	3.26
937401	AD2-194 1	5.24
937411	AD2-194 2	5.24
937531	AD2-214 C	2.92
937532	AD2-214 E	1.37
938012	AE1-002 E O1	4.63
938511	AE1-070 1	6.16
938521	AE1-070 2	5.63
938851	AE1-113 C O1	5.72
938852	AE1-113 E O1	17.99
938861	AE1-114 C O1	2.37
938862	AE1-114 E O1	9.06
939051	AE1-134 1	0.91
939061	AE1-134 2	0.91
939321	AE1-163 C O1	4.03
939322	AE1-163 E O1	24.74
939351	AE1-166 C O1	6.84
939352	AE1-166 E O1	6.31
939401	AE1-172 C O1	4.1
939402	AE1-172 E O1	19.18
939641	AE1-194 C	10.88
939642	AE1-194 E	72.84
939651	AE1-195 C	10.88
939652	AE1-195 E	72.84
939691	AE1-199	1.59
939701	AE1-201 C	1.34
939702	AE1-201 E	0.29
939732	AE1-204 E	0.2
939861	AE1-222 1	52.55
939871	AE1-222 2	54.95
939921	AE1-228 C O1	6.68
939922	AE1-228 E O1	4.45
939961	AE1-233 C O1	1.55
939962	AE1-233 E O1	6.39
940101	AE1-252 C O1	6.69
940102	AE1-252 E O1	4.46
951721	J643	15.51
952581	J740 C	3.4
952582	J740 E	18.42
953871	J847	8.38
AB2-013	AB2-013	10.64
AE1-033	AE1-033	12.03
BLUEG	BLUEG	2.86
CANNELTON	CANNELTON	0.0
CARR	CARR	0.5
CATAWBA	CATAWBA	0.16
CBM-S1	CBM-S1	1.36
CBM-W1	CBM-W1	19.98
CBM-W2	CBM-W2	38.44

Bus #	Bus	MW Impact
CIN	CIN	0.12
DEARBORN	DEARBORN	2.29
G-007	G-007	1.38
HAMLET	HAMLET	0.65
MEC	MEC	25.05
O-066	O-066	4.65
RENSSELAER	RENSSELAER	0.39
SANTEETLA	SANTEETLA	0.0
TRIMBLE	TRIMBLE	0.34
WEC	WEC	5.32
Z1-043	Z1-043	18.82

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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
670396	270828	NELSON ; B	CE	270730	ELECT JCT; B	CE	1	COMED_P4_155-45-BT6-7__	breaker	1656.0	132.33	133.95	DC	26.33

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
670407	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	109.38	109.78	DC	12.79

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.04
274654	BRAIDWOOD;1U	19.05
274655	BRAIDWOOD;2U	18.24
274661	LASCO STA;2U	17.6
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.88
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.88
274722	S-055 E	8.45
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274859	EASYR;U1 E	8.17
274860	EASYR;U2 E	8.17
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.74
274891	CAYUG;2U E	9.74
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.78
290108	LEEDK;1U E	18.09
293061	N-015 E	11.61
293516	O-009 E1	6.69
293517	O-009 E2	3.4
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.24
293716	O-029 E	3.97
293717	O-029 E	3.65
294392	P-010 E	14.75
294763	P-046 E	6.98
295109	WESTBROOK E	4.16
295111	SUBLETTE E	1.92
914641	Y2-103	33.8
915011	Y3-013 1	2.82

Bus #	Bus	MW Impact
915021	Y3-013 2	2.82
915031	Y3-013 3	2.82
916221	Z1-073 E	4.01
916502	Z1-106 E1	0.94
916504	Z1-106 E2	0.94
916512	Z1-107 E	1.85
916522	Z1-108 E	1.86
918052	AA1-018 E	11.64
919221	AA1-146	13.04
919581	AA2-030	13.04
920272	AA2-123 E	1.83
924471	AB2-096	31.63
925161	AB2-173	2.33
925302	AB2-191 E	1.03
926311	AC1-109 1	1.42
926321	AC1-109 2	1.42
926331	AC1-110 1	1.42
926341	AC1-110 2	1.42
926351	AC1-111 1	0.57
926361	AC1-111 2	0.57
926371	AC1-111 3	0.57
926381	AC1-111 4	0.57
926391	AC1-111 5	0.57
926401	AC1-111 6	0.57
926431	AC1-114	1.77
926821	AC1-168 C O1	0.85
926822	AC1-168 E O1	5.68
927091	AC1-204 1	55.19
927101	AC1-204 2	55.12
927451	AC1-142A 1	3.2
927461	AC1-142A 2	3.2
927511	AC1-113 1	0.89
927521	AC1-113 2	0.89
927531	AC1-185 1	0.51
927541	AC1-185 2	0.51
927551	AC1-185 3	0.51
927561	AC1-185 4	0.51
927571	AC1-185 5	0.51
927581	AC1-185 6	0.51
927591	AC1-185 7	0.51
927601	AC1-185 8	0.51
930481	AB1-089	49.05
930501	AB1-091 O1	50.61
930741	AB1-122 1O1	52.99
930751	AB1-122 2O1	56.33
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.06
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84

Bus #	Bus	MW Impact
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.19
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.19
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.2
934431	AD1-067 C	0.1
934432	AD1-067 E	0.41
934651	AD1-096 C	0.66
934652	AD1-096 E	1.08
934701	AD1-098 C O1	5.12
934702	AD1-098 E O1	3.74
934721	AD1-100 C	14.27
934722	AD1-100 E	66.6
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.99
934882	AD1-117 E	2.66
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.16
935002	AD1-133 E O1	10.11
936291	AD2-038 C O1	1.71
936292	AD2-038 E O1	11.45
936371	AD2-047 C O1	1.56
936372	AD2-047 E O1	16.75
936461	AD2-060	1.83
936511	AD2-066 C O1	6.19
936512	AD2-066 E O1	4.13
936781	AD2-101 C	3.09
936782	AD2-101 E	14.46
936791	AD2-102 C	8.96
936792	AD2-102 E	8.61
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.4
937031	AD2-137 C O1	2.44
937032	AD2-137 E O1	11.43
937051	AD2-140 C O1	2.44
937052	AD2-140 E O1	11.42
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.44
937071	AD2-142 C O1	4.88
937072	AD2-142 E O1	22.85
937121	AD2-148 C O1	2.43
937122	AD2-148 E O1	11.37
937131	AD2-149 C O1	2.43
937132	AD2-149 E O1	11.37

Bus #	Bus	MW Impact
937141	AD2-150 C O1	2.43
937142	AD2-150 E O1	11.37
937181	AD2-155 C O1	2.43
937182	AD2-155 E O1	11.37
937311	AD2-172 C	1.83
937312	AD2-172 E	2.53
937321	AD2-175 C	11.32
937322	AD2-175 E	7.55
937331	AD2-176 C O1	5.48
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	0.8
937532	AD2-214 E	0.38
938012	AE1-002 E O1	4.9
938511	AE1-070 1	6.97
938521	AE1-070 2	6.37
938851	AE1-113 C O1	6.35
938852	AE1-113 E O1	19.97
938861	AE1-114 C O1	2.65
938862	AE1-114 E O1	10.14
939051	AE1-134 1	1.01
939061	AE1-134 2	1.01
939321	AE1-163 C O1	4.63
939322	AE1-163 E O1	28.43
939351	AE1-166 C O1	7.6
939352	AE1-166 E O1	7.02
939401	AE1-172 C O1	4.47
939402	AE1-172 E O1	20.95
939641	AE1-194 C	18.96
939642	AE1-194 E	126.86
939651	AE1-195 C	18.96
939652	AE1-195 E	126.86
939691	AE1-199	1.78
939701	AE1-201 C	1.5
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.52
939871	AE1-222 2	62.2
939921	AE1-228 C O1	7.48
939922	AE1-228 E O1	4.99
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.16
940101	AE1-252 C O1	7.31
940102	AE1-252 E O1	4.87
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.47
BLUEG	BLUEG	5.05
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23

Bus #	Bus	MW Impact
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.04
CBM-W2	CBM-W2	37.14
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.14
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.58
O-066	O-066	5.3
RENSSELAER	RENSSELAER	0.45
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.97
Z1-043	Z1-043	20.98

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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
670267	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.15	DC	21.09

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	14.81
274722	S-055 E	13.75
274772	LINCOLN ;3U	3.36
274773	LINCOLN ;4U	3.36
274774	LINCOLN ;5U	3.36
274775	LINCOLN ;6U	3.36
274776	LINCOLN ;7U	3.36
274777	LINCOLN ;8U	3.36
274859	EASYR;U1 E	13.46
274860	EASYR;U2 E	13.46
274888	PILOT HIL;1E	23.62
274890	CAYUG;1U E	20.25
274891	CAYUG;2U E	20.25
275149	KEMPTON ;1E	23.62
290021	O50 E	23.75
290051	GSG-6; E	12.8
290108	LEEDK;1U E	29.74
293061	N-015 E	19.44
293516	O-009 E1	1.0
293517	O-009 E2	0.51
293518	O-009 E3	0.56
293644	O22 E1	12.55
293645	O22 E2	24.37
293715	O-029 E	11.98
293716	O-029 E	6.57
293717	O-029 E	6.04
294392	P-010 E	24.69
294763	P-046 E	11.48
295109	WESTBROOK E	6.85
295111	SUBLETTE E	3.18
296125	R-030 C3	4.98
296128	R-030 E3	19.93
296271	R-030 C2	4.92
296272	R-030 E2	19.7
296308	R-030 C1	4.92
296309	R-030 E1	19.7
910542	X3-005 E	0.9
914641	Y2-103	55.02
915011	Y3-013 1	4.58
915021	Y3-013 2	4.58
915031	Y3-013 3	4.58

Bus #	Bus	MW Impact
916221	Z1-073 E	6.61
916502	Z1-106 E1	1.55
916504	Z1-106 E2	1.55
916512	Z1-107 E	3.17
916522	Z1-108 E	3.04
917502	Z2-087 E	25.76
918052	AA1-018 E	20.13
919221	AA1-146	21.54
919581	AA2-030	21.54
920272	AA2-123 E	2.99
924041	AB2-047 C O1	4.75
924042	AB2-047 E O1	31.79
924471	AB2-096	51.84
925161	AB2-173	3.84
925302	AB2-191 E	1.7
925881	AC1-067 O1	168.51
926311	AC1-109 1	2.34
926321	AC1-109 2	2.34
926331	AC1-110 1	2.33
926341	AC1-110 2	2.33
926351	AC1-111 1	0.94
926361	AC1-111 2	0.94
926371	AC1-111 3	0.94
926381	AC1-111 4	0.94
926391	AC1-111 5	0.94
926401	AC1-111 6	0.94
926431	AC1-114	2.91
926821	AC1-168 C O1	1.43
926822	AC1-168 E O1	9.59
927091	AC1-204 1	88.93
927101	AC1-204 2	88.93
927451	AC1-142A 1	5.12
927461	AC1-142A 2	5.12
927511	AC1-113 1	1.46
927521	AC1-113 2	1.46
927531	AC1-185 1	0.84
927541	AC1-185 2	0.84
927551	AC1-185 3	0.84
927561	AC1-185 4	0.84
927571	AC1-185 5	0.84
927581	AC1-185 6	0.84
927591	AC1-185 7	0.84
927601	AC1-185 8	0.84
930481	AB1-089	80.5
930501	AB1-091 O1	93.97
930741	AB1-122 1O1	89.35
930751	AB1-122 2O1	90.31
932881	AC2-115 1	2.91
932891	AC2-115 2	2.91
932921	AC2-116	1.02
932931	AC2-117	6.52
933341	AC2-147 C	1.07

Bus #	Bus	MW Impact
933342	AC2-147 E	1.74
933411	AC2-154 C	3.21
933412	AC2-154 E	5.23
933431	AC2-156 C O1	1.17
933432	AC2-156 E O1	1.91
933911	AD1-013 C	2.25
933912	AD1-013 E	3.6
933931	AD1-016 C	1.14
933932	AD1-016 E	1.85
934101	AD1-039 1	8.76
934111	AD1-039 2	8.85
934401	AD1-064 C O1	3.92
934402	AD1-064 E O1	18.37
934431	AD1-067 C	0.16
934432	AD1-067 E	0.68
934651	AD1-096 C	1.09
934652	AD1-096 E	1.78
934701	AD1-098 C O1	8.43
934702	AD1-098 E O1	6.15
934721	AD1-100 C	29.44
934722	AD1-100 E	137.37
934871	AD1-116 C	1.17
934872	AD1-116 E	1.91
934881	AD1-117 C	6.58
934882	AD1-117 E	4.39
934971	AD1-129 C	1.11
934972	AD1-129 E	0.74
935001	AD1-133 C O1	27.42
935002	AD1-133 E O1	18.28
936291	AD2-038 C O1	2.88
936292	AD2-038 E O1	19.29
936371	AD2-047 C O1	2.87
936372	AD2-047 E O1	30.87
936461	AD2-060	3.37
936511	AD2-066 C O1	10.36
936512	AD2-066 E O1	6.91
936781	AD2-101 C	5.83
936782	AD2-101 E	27.31
936791	AD2-102 C	14.71
936792	AD2-102 E	14.14
936961	AD2-130	0.69
937001	AD2-134 C	3.35
937002	AD2-134 E	13.82
937031	AD2-137 C O1	7.17
937032	AD2-137 E O1	33.59
937051	AD2-140 C O1	7.53
937052	AD2-140 E O1	35.28
937061	AD2-141 C O1	7.49
937062	AD2-141 E O1	35.32
937071	AD2-142 C O1	15.07
937072	AD2-142 E O1	70.55
937121	AD2-148 C O1	4.51

Bus #	Bus	MW Impact
937122	AD2-148 E O1	21.13
937131	AD2-149 C O1	4.51
937132	AD2-149 E O1	21.13
937141	AD2-150 C O1	4.51
937142	AD2-150 E O1	21.13
937181	AD2-155 C O1	4.51
937182	AD2-155 E O1	21.13
937311	AD2-172 C	3.01
937312	AD2-172 E	4.16
937321	AD2-175 C	21.03
937322	AD2-175 E	14.02
937331	AD2-176 C O1	8.97
937332	AD2-176 E O1	5.98
937401	AD2-194 1	9.56
937411	AD2-194 2	9.56
938012	AE1-002 E O1	14.4
938511	AE1-070 1	11.24
938521	AE1-070 2	10.28
938851	AE1-113 C O1	10.7
938852	AE1-113 E O1	33.64
938861	AE1-114 C O1	4.37
938862	AE1-114 E O1	16.72
939051	AE1-134 1	1.67
939061	AE1-134 2	1.67
939321	AE1-163 C O1	7.21
939322	AE1-163 E O1	44.26
939351	AE1-166 C O1	14.52
939352	AE1-166 E O1	13.41
939401	AE1-172 C O1	9.52
939402	AE1-172 E O1	44.57
939691	AE1-199	2.93
939701	AE1-201 C	2.45
939702	AE1-201 E	0.54
939732	AE1-204 E	0.36
939741	AE1-205 C O1	12.48
939742	AE1-205 E O1	17.23
939861	AE1-222 1	98.68
939871	AE1-222 2	99.73
939921	AE1-228 C O1	12.31
939922	AE1-228 E O1	8.21
939961	AE1-233 C O1	2.85
939962	AE1-233 E O1	11.77
940101	AE1-252 C O1	15.19
940102	AE1-252 E O1	10.13
AB2-013	AB2-013	19.85
AE1-033	AE1-033	22.1
BLUEG	BLUEG	7.86
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.96
CATAWBA	CATAWBA	0.38
CBM-S1	CBM-S1	1.85

Bus #	Bus	MW Impact
CBM-W1	CBM-W1	37.32
CBM-W2	CBM-W2	71.02
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.9
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.69
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.46
MEC	MEC	46.58
O-066	O-066	9.06
RENSSELAER	RENSSELAER	0.76
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.94
WEC	WEC	9.75
Z1-043	Z1-043	35.51

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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
670269	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.19	162.56	DC	21.54

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	15.13
274722	S-055 E	14.05
274772	LINCOLN ;3U	3.45
274773	LINCOLN ;4U	3.45
274774	LINCOLN ;5U	3.45
274775	LINCOLN ;6U	3.45
274776	LINCOLN ;7U	3.45
274777	LINCOLN ;8U	3.45
274832	U4-027	6.82
274859	EASYR;U1 E	13.75
274860	EASYR;U2 E	13.75
274888	PILOT HIL;1E	24.11
274890	CAYUG;1U E	20.66
274891	CAYUG;2U E	20.66
275149	KEMPTON ;1E	24.11
290021	O50 E	24.25
290051	GSG-6; E	13.07
290108	LEEDK;1U E	30.37
293061	N-015 E	19.85
293516	O-009 E1	11.37
293517	O-009 E2	5.78
293518	O-009 E3	6.36
293644	O22 E1	12.82
293645	O22 E2	24.89
293715	O-029 E	12.24
293716	O-029 E	6.71
293717	O-029 E	6.17
293771	O-035 E	8.08
294392	P-010 E	25.21
294763	P-046 E	11.72
295109	WESTBROOK E	7.0
295111	SUBLETTE E	3.24
296125	R-030 C3	5.08
296128	R-030 E3	20.34
296271	R-030 C2	5.02
296272	R-030 E2	20.09
296308	R-030 C1	5.02
296309	R-030 E1	20.09
910542	X3-005 E	0.91
914641	Y2-103	56.19
915011	Y3-013 1	4.68

Bus #	Bus	MW Impact
915021	Y3-013 2	4.68
915031	Y3-013 3	4.68
916211	Z1-072 E	6.11
916221	Z1-073 E	6.75
916502	Z1-106 E1	1.58
916504	Z1-106 E2	1.58
916512	Z1-107 E	3.23
916522	Z1-108 E	3.11
917502	Z2-087 E	26.28
918052	AA1-018 E	20.57
919221	AA1-146	22.0
919581	AA2-030	22.0
920272	AA2-123 E	3.06
924041	AB2-047 C O1	4.85
924042	AB2-047 E O1	32.43
924471	AB2-096	52.94
925161	AB2-173	3.92
925302	AB2-191 E	1.73
925881	AC1-067 O1	172.23
926311	AC1-109 1	2.39
926321	AC1-109 2	2.39
926331	AC1-110 1	2.37
926341	AC1-110 2	2.37
926351	AC1-111 1	0.96
926361	AC1-111 2	0.96
926371	AC1-111 3	0.96
926381	AC1-111 4	0.96
926391	AC1-111 5	0.96
926401	AC1-111 6	0.96
926431	AC1-114	2.97
926821	AC1-168 C O1	1.46
926822	AC1-168 E O1	9.79
927091	AC1-204 1	90.83
927101	AC1-204 2	90.83
927201	AC1-214 C O1	2.59
927202	AC1-214 E O1	8.24
927451	AC1-142A 1	5.23
927461	AC1-142A 2	5.23
927511	AC1-113 1	1.49
927521	AC1-113 2	1.49
927531	AC1-185 1	0.86
927541	AC1-185 2	0.86
927551	AC1-185 3	0.86
927561	AC1-185 4	0.86
927571	AC1-185 5	0.86
927581	AC1-185 6	0.86
927591	AC1-185 7	0.86
927601	AC1-185 8	0.86
930481	AB1-089	82.21
930501	AB1-091 O1	95.92
930741	AB1-122 1O1	91.25
930751	AB1-122 2O1	92.24

Bus #	Bus	MW Impact
932881	AC2-115 1	2.97
932891	AC2-115 2	2.97
932921	AC2-116	1.04
932931	AC2-117	6.67
933341	AC2-147 C	1.09
933342	AC2-147 E	1.78
933411	AC2-154 C	3.27
933412	AC2-154 E	5.34
933431	AC2-156 C O1	1.2
933432	AC2-156 E O1	1.95
933911	AD1-013 C	2.3
933912	AD1-013 E	3.68
933931	AD1-016 C	1.16
933932	AD1-016 E	1.89
934101	AD1-039 1	8.94
934111	AD1-039 2	9.04
934401	AD1-064 C O1	4.01
934402	AD1-064 E O1	18.76
934431	AD1-067 C	0.16
934432	AD1-067 E	0.69
934651	AD1-096 C	1.11
934652	AD1-096 E	1.82
934701	AD1-098 C O1	8.6
934702	AD1-098 E O1	6.28
934721	AD1-100 C	30.02
934722	AD1-100 E	140.09
934871	AD1-116 C	1.2
934872	AD1-116 E	1.95
934881	AD1-117 C	6.72
934882	AD1-117 E	4.48
934971	AD1-129 C	1.13
934972	AD1-129 E	0.75
935001	AD1-133 C O1	27.99
935002	AD1-133 E O1	18.66
936291	AD2-038 C O1	2.94
936292	AD2-038 E O1	19.7
936371	AD2-047 C O1	2.93
936372	AD2-047 E O1	31.51
936461	AD2-060	3.44
936511	AD2-066 C O1	10.58
936512	AD2-066 E O1	7.05
936781	AD2-101 C	5.95
936782	AD2-101 E	27.88
936791	AD2-102 C	15.03
936792	AD2-102 E	14.44
936961	AD2-130	0.7
937001	AD2-134 C	3.42
937002	AD2-134 E	14.12
937031	AD2-137 C O1	7.31
937032	AD2-137 E O1	34.21
937051	AD2-140 C O1	7.67
937052	AD2-140 E O1	35.93

Bus #	Bus	MW Impact
937061	AD2-141 C O1	7.63
937062	AD2-141 E O1	35.97
937071	AD2-142 C O1	15.35
937072	AD2-142 E O1	71.86
937121	AD2-148 C O1	4.61
937122	AD2-148 E O1	21.57
937131	AD2-149 C O1	4.61
937132	AD2-149 E O1	21.57
937141	AD2-150 C O1	4.61
937142	AD2-150 E O1	21.57
937181	AD2-155 C O1	4.61
937182	AD2-155 E O1	21.57
937311	AD2-172 C	3.08
937312	AD2-172 E	4.25
937321	AD2-175 C	21.46
937322	AD2-175 E	14.31
937331	AD2-176 C O1	9.17
937332	AD2-176 E O1	6.11
937401	AD2-194 1	9.77
937411	AD2-194 2	9.77
938012	AE1-002 E O1	14.67
938511	AE1-070 1	11.48
938521	AE1-070 2	10.5
938851	AE1-113 C O1	10.93
938852	AE1-113 E O1	34.37
938861	AE1-114 C O1	4.47
938862	AE1-114 E O1	17.07
939051	AE1-134 1	1.71
939061	AE1-134 2	1.71
939321	AE1-163 C O1	7.36
939322	AE1-163 E O1	45.2
939351	AE1-166 C O1	14.82
939352	AE1-166 E O1	13.68
939401	AE1-172 C O1	9.71
939402	AE1-172 E O1	45.45
939691	AE1-199	2.99
939701	AE1-201 C	2.51
939702	AE1-201 E	0.55
939732	AE1-204 E	0.37
939741	AE1-205 C O1	12.73
939742	AE1-205 E O1	17.58
939861	AE1-222 1	100.77
939871	AE1-222 2	101.86
939921	AE1-228 C O1	12.57
939922	AE1-228 E O1	8.38
939961	AE1-233 C O1	2.91
939962	AE1-233 E O1	12.02
940101	AE1-252 C O1	15.49
940102	AE1-252 E O1	10.33
AB2-013	AB2-013	20.27
AE1-033	AE1-033	22.58
BLUEG	BLUEG	8.03

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.98
CATAWBA	CATAWBA	0.39
CBM-S1	CBM-S1	1.88
CBM-W1	CBM-W1	38.11
CBM-W2	CBM-W2	72.48
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.96
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.75
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.49
MEC	MEC	47.56
O-066	O-066	9.26
RENSSELAER	RENSSELAER	0.77
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.96
WEC	WEC	9.96
Z1-043	Z1-043	36.25

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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
670299	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	121.94	122.46	DC	17.8

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	12.57
274654	BRAIDWOOD;1U	26.97
274655	BRAIDWOOD;2U	25.8
274661	LASCO STA;2U	24.66
274687	WILL CNTY;4U	11.24
274704	KENDALL ;1C	3.96
274705	KENDALL ;1S	2.64
274706	KENDALL ;2C	3.96
274707	KENDALL ;2S	2.64
274722	S-055 E	11.77
274751	CRETE EC ;1U	5.74
274752	CRETE EC ;2U	5.74
274753	CRETE EC ;3U	5.74
274754	CRETE EC ;4U	5.74
274859	EASYR;U1 E	11.37
274860	EASYR;U2 E	11.37
274861	TOP CROP ;1U	0.47
274862	TOP CROP ;2U	0.91
274888	PILOT HIL;1E	16.88
274890	CAYUG;1U E	13.45
274891	CAYUG;2U E	13.45
275149	KEMPTON ;1E	16.88
290021	O50 E	20.54
290051	GSG-6; E	10.8
290108	LEEDK;1U E	25.11
293061	N-015 E	16.24
293516	O-009 E1	9.32
293517	O-009 E2	4.73
293518	O-009 E3	5.21
293644	O22 E1	12.21
293645	O22 E2	23.71
293715	O-029 E	10.07
293716	O-029 E	5.52
293717	O-029 E	5.08
294392	P-010 E	20.62
294763	P-046 E	9.71
295109	WESTBROOK E	5.78
295111	SUBLETTE E	2.68
914641	Y2-103	47.06
915011	Y3-013 1	3.92
915021	Y3-013 2	3.92

Bus #	Bus	MW Impact
915031	Y3-013 3	3.92
916221	Z1-073 E	5.57
916502	Z1-106 E1	1.31
916504	Z1-106 E2	1.31
916512	Z1-107 E	2.52
916522	Z1-108 E	2.59
918052	AA1-018 E	15.99
919221	AA1-146	18.16
919581	AA2-030	18.16
920272	AA2-123 E	2.54
924471	AB2-096	43.99
925161	AB2-173	3.24
925302	AB2-191 E	1.43
926311	AC1-109 1	1.97
926321	AC1-109 2	1.97
926331	AC1-110 1	1.98
926341	AC1-110 2	1.98
926351	AC1-111 1	0.79
926361	AC1-111 2	0.79
926371	AC1-111 3	0.79
926381	AC1-111 4	0.79
926391	AC1-111 5	0.79
926401	AC1-111 6	0.79
926431	AC1-114	2.47
926821	AC1-168 C O1	1.18
926822	AC1-168 E O1	7.92
927091	AC1-204 1	77.42
927101	AC1-204 2	77.29
927451	AC1-142A 1	4.48
927461	AC1-142A 2	4.48
927511	AC1-113 1	1.23
927521	AC1-113 2	1.23
927531	AC1-185 1	0.71
927541	AC1-185 2	0.71
927551	AC1-185 3	0.71
927561	AC1-185 4	0.71
927571	AC1-185 5	0.71
927581	AC1-185 6	0.71
927591	AC1-185 7	0.71
927601	AC1-185 8	0.71
930481	AB1-089	68.22
930501	AB1-091 O1	66.51
930741	AB1-122 1O1	73.76
930751	AB1-122 2O1	78.95
932881	AC2-115 1	2.47
932891	AC2-115 2	2.47
932921	AC2-116	0.86
933341	AC2-147 C	0.9
933342	AC2-147 E	1.47
933411	AC2-154 C	2.29
933412	AC2-154 E	3.74
933431	AC2-156 C O1	0.99

Bus #	Bus	MW Impact
933432	AC2-156 E O1	1.61
933911	AD1-013 C	1.9
933912	AD1-013 E	3.04
933931	AD1-016 C	0.97
933932	AD1-016 E	1.58
934101	AD1-039 1	7.23
934111	AD1-039 2	7.74
934401	AD1-064 C O1	3.33
934402	AD1-064 E O1	15.58
934431	AD1-067 C	0.14
934432	AD1-067 E	0.57
934651	AD1-096 C	0.92
934652	AD1-096 E	1.51
934701	AD1-098 C O1	7.11
934702	AD1-098 E O1	5.19
934721	AD1-100 C	19.71
934722	AD1-100 E	91.99
934871	AD1-116 C	0.93
934872	AD1-116 E	1.52
934881	AD1-117 C	5.55
934882	AD1-117 E	3.7
934971	AD1-129 C	0.94
934972	AD1-129 E	0.63
935001	AD1-133 C O1	21.05
935002	AD1-133 E O1	14.03
936291	AD2-038 C O1	2.37
936292	AD2-038 E O1	15.89
936371	AD2-047 C O1	2.05
936372	AD2-047 E O1	22.06
936461	AD2-060	2.41
936511	AD2-066 C O1	8.6
936512	AD2-066 E O1	5.74
936781	AD2-101 C	3.03
936782	AD2-101 E	14.16
936791	AD2-102 C	12.47
936792	AD2-102 E	11.98
936961	AD2-130	0.59
937001	AD2-134 C	2.82
937002	AD2-134 E	11.67
937031	AD2-137 C O1	3.3
937032	AD2-137 E O1	15.44
937051	AD2-140 C O1	3.28
937052	AD2-140 E O1	15.37
937061	AD2-141 C O1	3.27
937062	AD2-141 E O1	15.39
937071	AD2-142 C O1	6.57
937072	AD2-142 E O1	30.75
937121	AD2-148 C O1	3.19
937122	AD2-148 E O1	14.95
937131	AD2-149 C O1	3.19
937132	AD2-149 E O1	14.95
937141	AD2-150 C O1	3.19

Bus #	Bus	MW Impact
937142	AD2-150 E O1	14.95
937181	AD2-155 C O1	3.19
937182	AD2-155 E O1	14.95
937311	AD2-172 C	2.55
937312	AD2-172 E	3.52
937321	AD2-175 C	14.88
937322	AD2-175 E	9.92
937331	AD2-176 C O1	7.62
937332	AD2-176 E O1	5.08
937401	AD2-194 1	8.33
937411	AD2-194 2	8.31
937531	AD2-214 C	4.54
937532	AD2-214 E	2.14
938012	AE1-002 E O1	6.62
938511	AE1-070 1	9.78
938521	AE1-070 2	8.93
938851	AE1-113 C O1	8.81
938852	AE1-113 E O1	27.71
938861	AE1-114 C O1	3.69
938862	AE1-114 E O1	14.11
939051	AE1-134 1	1.41
939061	AE1-134 2	1.41
939321	AE1-163 C O1	6.57
939322	AE1-163 E O1	40.34
939351	AE1-166 C O1	10.54
939352	AE1-166 E O1	9.73
939401	AE1-172 C O1	6.17
939402	AE1-172 E O1	28.89
939641	AE1-194 C	32.38
939642	AE1-194 E	216.73
939651	AE1-195 C	32.38
939652	AE1-195 E	216.73
939691	AE1-199	2.47
939701	AE1-201 C	2.08
939702	AE1-201 E	0.46
939732	AE1-204 E	0.31
939861	AE1-222 1	81.46
939871	AE1-222 2	87.19
939921	AE1-228 C O1	10.39
939922	AE1-228 E O1	6.93
939961	AE1-233 C O1	2.41
939962	AE1-233 E O1	9.95
940101	AE1-252 C O1	10.09
940102	AE1-252 E O1	6.73
AB2-013	AB2-013	16.6
AE1-033	AE1-033	18.74
BLUEG	BLUEG	6.66
CALDERWOOD	CALDERWOOD	0.12
CANNELTON	CANNELTON	0.14
CARR	CARR	0.8
CATAWBA	CATAWBA	0.32
CBM-S1	CBM-S1	1.14

Bus #	Bus	MW Impact
CBM-W1	CBM-W1	25.55
CBM-W2	CBM-W2	51.99
CHEOAH	CHEOAH	0.12
CHILHOWEE	CHILHOWEE	0.04
DEARBORN	DEARBORN	3.16
ELMERSMITH	ELMERSMITH	0.17
G-007	G-007	2.23
GIBSON	GIBSON	0.08
HAMLET	HAMLET	1.22
MEC	MEC	38.45
O-066	O-066	7.49
RENSSELAER	RENSSELAER	0.63
SANTEETLA	SANTEETLA	0.04
TRIMBLE	TRIMBLE	0.78
WEC	WEC	8.32
Z1-043	Z1-043	29.26

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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
670361	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.71	133.18	DC	13.85

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
670266	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	164.9	165.15	DC	21.09

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	14.81
274722	S-055 E	13.75
274772	LINCOLN ;3U	3.36
274773	LINCOLN ;4U	3.36
274774	LINCOLN ;5U	3.36
274775	LINCOLN ;6U	3.36
274776	LINCOLN ;7U	3.36
274777	LINCOLN ;8U	3.36
274859	EASYR;U1 E	13.46
274860	EASYR;U2 E	13.46
274888	PILOT HIL;1E	23.62
274890	CAYUG;1U E	20.25
274891	CAYUG;2U E	20.25
275149	KEMPTON ;1E	23.62
290021	O50 E	23.75
290051	GSG-6; E	12.8
290108	LEEDK;1U E	29.74
293061	N-015 E	19.44
293516	O-009 E1	1.0
293517	O-009 E2	0.51
293518	O-009 E3	0.56
293644	O22 E1	12.55
293645	O22 E2	24.37
293715	O-029 E	11.98
293716	O-029 E	6.57
293717	O-029 E	6.04
294392	P-010 E	24.69
294763	P-046 E	11.48
295109	WESTBROOK E	6.85
295111	SUBLETTE E	3.18
296125	R-030 C3	4.98
296128	R-030 E3	19.93
296271	R-030 C2	4.92
296272	R-030 E2	19.7
296308	R-030 C1	4.92
296309	R-030 E1	19.7
910542	X3-005 E	0.9
914641	Y2-103	55.02
915011	Y3-013 1	4.58
915021	Y3-013 2	4.58
915031	Y3-013 3	4.58

Bus #	Bus	MW Impact
916221	Z1-073 E	6.61
916502	Z1-106 E1	1.55
916504	Z1-106 E2	1.55
916512	Z1-107 E	3.17
916522	Z1-108 E	3.04
917502	Z2-087 E	25.76
918052	AA1-018 E	20.13
919221	AA1-146	21.54
919581	AA2-030	21.54
920272	AA2-123 E	2.99
924041	AB2-047 C O1	4.75
924042	AB2-047 E O1	31.79
924471	AB2-096	51.84
925161	AB2-173	3.84
925302	AB2-191 E	1.7
925881	AC1-067 O1	168.51
926311	AC1-109 1	2.34
926321	AC1-109 2	2.34
926331	AC1-110 1	2.33
926341	AC1-110 2	2.33
926351	AC1-111 1	0.94
926361	AC1-111 2	0.94
926371	AC1-111 3	0.94
926381	AC1-111 4	0.94
926391	AC1-111 5	0.94
926401	AC1-111 6	0.94
926431	AC1-114	2.91
926821	AC1-168 C O1	1.43
926822	AC1-168 E O1	9.59
927091	AC1-204 1	88.93
927101	AC1-204 2	88.93
927451	AC1-142A 1	5.12
927461	AC1-142A 2	5.12
927511	AC1-113 1	1.46
927521	AC1-113 2	1.46
927531	AC1-185 1	0.84
927541	AC1-185 2	0.84
927551	AC1-185 3	0.84
927561	AC1-185 4	0.84
927571	AC1-185 5	0.84
927581	AC1-185 6	0.84
927591	AC1-185 7	0.84
927601	AC1-185 8	0.84
930481	AB1-089	80.5
930501	AB1-091 O1	93.97
930741	AB1-122 1O1	89.35
930751	AB1-122 2O1	90.31
932881	AC2-115 1	2.91
932891	AC2-115 2	2.91
932921	AC2-116	1.02
932931	AC2-117	6.52
933341	AC2-147 C	1.07

Bus #	Bus	MW Impact
933342	AC2-147 E	1.74
933411	AC2-154 C	3.21
933412	AC2-154 E	5.23
933431	AC2-156 C O1	1.17
933432	AC2-156 E O1	1.91
933911	AD1-013 C	2.25
933912	AD1-013 E	3.6
933931	AD1-016 C	1.14
933932	AD1-016 E	1.85
934101	AD1-039 1	8.76
934111	AD1-039 2	8.85
934401	AD1-064 C O1	3.92
934402	AD1-064 E O1	18.37
934431	AD1-067 C	0.16
934432	AD1-067 E	0.68
934651	AD1-096 C	1.09
934652	AD1-096 E	1.78
934701	AD1-098 C O1	8.43
934702	AD1-098 E O1	6.15
934721	AD1-100 C	29.44
934722	AD1-100 E	137.37
934871	AD1-116 C	1.17
934872	AD1-116 E	1.91
934881	AD1-117 C	6.58
934882	AD1-117 E	4.39
934971	AD1-129 C	1.11
934972	AD1-129 E	0.74
935001	AD1-133 C O1	27.42
935002	AD1-133 E O1	18.28
936291	AD2-038 C O1	2.88
936292	AD2-038 E O1	19.29
936371	AD2-047 C O1	2.87
936372	AD2-047 E O1	30.87
936461	AD2-060	3.37
936511	AD2-066 C O1	10.36
936512	AD2-066 E O1	6.91
936781	AD2-101 C	5.83
936782	AD2-101 E	27.31
936791	AD2-102 C	14.71
936792	AD2-102 E	14.14
936961	AD2-130	0.69
937001	AD2-134 C	3.35
937002	AD2-134 E	13.82
937031	AD2-137 C O1	7.17
937032	AD2-137 E O1	33.59
937051	AD2-140 C O1	7.53
937052	AD2-140 E O1	35.28
937061	AD2-141 C O1	7.49
937062	AD2-141 E O1	35.32
937071	AD2-142 C O1	15.07
937072	AD2-142 E O1	70.55
937121	AD2-148 C O1	4.51

Bus #	Bus	MW Impact
937122	AD2-148 E O1	21.13
937131	AD2-149 C O1	4.51
937132	AD2-149 E O1	21.13
937141	AD2-150 C O1	4.51
937142	AD2-150 E O1	21.13
937181	AD2-155 C O1	4.51
937182	AD2-155 E O1	21.13
937311	AD2-172 C	3.01
937312	AD2-172 E	4.16
937321	AD2-175 C	21.03
937322	AD2-175 E	14.02
937331	AD2-176 C O1	8.97
937332	AD2-176 E O1	5.98
937401	AD2-194 1	9.56
937411	AD2-194 2	9.56
938012	AE1-002 E O1	14.4
938511	AE1-070 1	11.24
938521	AE1-070 2	10.28
938851	AE1-113 C O1	10.7
938852	AE1-113 E O1	33.64
938861	AE1-114 C O1	4.37
938862	AE1-114 E O1	16.72
939051	AE1-134 1	1.67
939061	AE1-134 2	1.67
939321	AE1-163 C O1	7.21
939322	AE1-163 E O1	44.26
939351	AE1-166 C O1	14.52
939352	AE1-166 E O1	13.41
939401	AE1-172 C O1	9.52
939402	AE1-172 E O1	44.57
939691	AE1-199	2.93
939701	AE1-201 C	2.45
939702	AE1-201 E	0.54
939732	AE1-204 E	0.36
939741	AE1-205 C O1	12.48
939742	AE1-205 E O1	17.23
939861	AE1-222 1	98.68
939871	AE1-222 2	99.73
939921	AE1-228 C O1	12.31
939922	AE1-228 E O1	8.21
939961	AE1-233 C O1	2.85
939962	AE1-233 E O1	11.77
940101	AE1-252 C O1	15.19
940102	AE1-252 E O1	10.13
AB2-013	AB2-013	19.85
AE1-033	AE1-033	22.1
BLUEG	BLUEG	7.86
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.96
CATAWBA	CATAWBA	0.38
CBM-S1	CBM-S1	1.85

Bus #	Bus	MW Impact
CBM-W1	CBM-W1	37.32
CBM-W2	CBM-W2	71.02
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.9
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.69
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.46
MEC	MEC	46.58
O-066	O-066	9.06
RENSSELAER	RENSSELAER	0.76
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.94
WEC	WEC	9.75
Z1-043	Z1-043	35.51

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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
670271	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	162.19	162.56	DC	21.54

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	15.13
274722	S-055 E	14.05
274772	LINCOLN ;3U	3.45
274773	LINCOLN ;4U	3.45
274774	LINCOLN ;5U	3.45
274775	LINCOLN ;6U	3.45
274776	LINCOLN ;7U	3.45
274777	LINCOLN ;8U	3.45
274832	U4-027	6.82
274859	EASYR;U1 E	13.75
274860	EASYR;U2 E	13.75
274888	PILOT HIL;1E	24.11
274890	CAYUG;1U E	20.66
274891	CAYUG;2U E	20.66
275149	KEMPTON ;1E	24.11
290021	O50 E	24.25
290051	GSG-6; E	13.07
290108	LEEDK;1U E	30.37
293061	N-015 E	19.85
293516	O-009 E1	11.37
293517	O-009 E2	5.78
293518	O-009 E3	6.36
293644	O22 E1	12.82
293645	O22 E2	24.89
293715	O-029 E	12.24
293716	O-029 E	6.71
293717	O-029 E	6.17
293771	O-035 E	8.08
294392	P-010 E	25.21
294763	P-046 E	11.72
295109	WESTBROOK E	7.0
295111	SUBLETTE E	3.24
296125	R-030 C3	5.08
296128	R-030 E3	20.34
296271	R-030 C2	5.02
296272	R-030 E2	20.09
296308	R-030 C1	5.02
296309	R-030 E1	20.09
910542	X3-005 E	0.91
914641	Y2-103	56.19
915011	Y3-013 1	4.68

Bus #	Bus	MW Impact
915021	Y3-013 2	4.68
915031	Y3-013 3	4.68
916211	Z1-072 E	6.11
916221	Z1-073 E	6.75
916502	Z1-106 E1	1.58
916504	Z1-106 E2	1.58
916512	Z1-107 E	3.23
916522	Z1-108 E	3.11
917502	Z2-087 E	26.28
918052	AA1-018 E	20.57
919221	AA1-146	22.0
919581	AA2-030	22.0
920272	AA2-123 E	3.06
924041	AB2-047 C O1	4.85
924042	AB2-047 E O1	32.43
924471	AB2-096	52.94
925161	AB2-173	3.92
925302	AB2-191 E	1.73
925881	AC1-067 O1	172.23
926311	AC1-109 1	2.39
926321	AC1-109 2	2.39
926331	AC1-110 1	2.37
926341	AC1-110 2	2.37
926351	AC1-111 1	0.96
926361	AC1-111 2	0.96
926371	AC1-111 3	0.96
926381	AC1-111 4	0.96
926391	AC1-111 5	0.96
926401	AC1-111 6	0.96
926431	AC1-114	2.97
926821	AC1-168 C O1	1.46
926822	AC1-168 E O1	9.79
927091	AC1-204 1	90.83
927101	AC1-204 2	90.83
927201	AC1-214 C O1	2.59
927202	AC1-214 E O1	8.24
927451	AC1-142A 1	5.23
927461	AC1-142A 2	5.23
927511	AC1-113 1	1.49
927521	AC1-113 2	1.49
927531	AC1-185 1	0.86
927541	AC1-185 2	0.86
927551	AC1-185 3	0.86
927561	AC1-185 4	0.86
927571	AC1-185 5	0.86
927581	AC1-185 6	0.86
927591	AC1-185 7	0.86
927601	AC1-185 8	0.86
930481	AB1-089	82.21
930501	AB1-091 O1	95.92
930741	AB1-122 1O1	91.25
930751	AB1-122 2O1	92.24

Bus #	Bus	MW Impact
932881	AC2-115 1	2.97
932891	AC2-115 2	2.97
932921	AC2-116	1.04
932931	AC2-117	6.67
933341	AC2-147 C	1.09
933342	AC2-147 E	1.78
933411	AC2-154 C	3.27
933412	AC2-154 E	5.34
933431	AC2-156 C O1	1.2
933432	AC2-156 E O1	1.95
933911	AD1-013 C	2.3
933912	AD1-013 E	3.68
933931	AD1-016 C	1.16
933932	AD1-016 E	1.89
934101	AD1-039 1	8.94
934111	AD1-039 2	9.04
934401	AD1-064 C O1	4.01
934402	AD1-064 E O1	18.76
934431	AD1-067 C	0.16
934432	AD1-067 E	0.69
934651	AD1-096 C	1.11
934652	AD1-096 E	1.82
934701	AD1-098 C O1	8.6
934702	AD1-098 E O1	6.28
934721	AD1-100 C	30.02
934722	AD1-100 E	140.09
934871	AD1-116 C	1.2
934872	AD1-116 E	1.95
934881	AD1-117 C	6.72
934882	AD1-117 E	4.48
934971	AD1-129 C	1.13
934972	AD1-129 E	0.75
935001	AD1-133 C O1	27.99
935002	AD1-133 E O1	18.66
936291	AD2-038 C O1	2.94
936292	AD2-038 E O1	19.7
936371	AD2-047 C O1	2.93
936372	AD2-047 E O1	31.51
936461	AD2-060	3.44
936511	AD2-066 C O1	10.58
936512	AD2-066 E O1	7.05
936781	AD2-101 C	5.95
936782	AD2-101 E	27.88
936791	AD2-102 C	15.03
936792	AD2-102 E	14.44
936961	AD2-130	0.7
937001	AD2-134 C	3.42
937002	AD2-134 E	14.12
937031	AD2-137 C O1	7.31
937032	AD2-137 E O1	34.21
937051	AD2-140 C O1	7.67
937052	AD2-140 E O1	35.93

Bus #	Bus	MW Impact
937061	AD2-141 C O1	7.63
937062	AD2-141 E O1	35.97
937071	AD2-142 C O1	15.35
937072	AD2-142 E O1	71.86
937121	AD2-148 C O1	4.61
937122	AD2-148 E O1	21.57
937131	AD2-149 C O1	4.61
937132	AD2-149 E O1	21.57
937141	AD2-150 C O1	4.61
937142	AD2-150 E O1	21.57
937181	AD2-155 C O1	4.61
937182	AD2-155 E O1	21.57
937311	AD2-172 C	3.08
937312	AD2-172 E	4.25
937321	AD2-175 C	21.46
937322	AD2-175 E	14.31
937331	AD2-176 C O1	9.17
937332	AD2-176 E O1	6.11
937401	AD2-194 1	9.77
937411	AD2-194 2	9.77
938012	AE1-002 E O1	14.67
938511	AE1-070 1	11.48
938521	AE1-070 2	10.5
938851	AE1-113 C O1	10.93
938852	AE1-113 E O1	34.37
938861	AE1-114 C O1	4.47
938862	AE1-114 E O1	17.07
939051	AE1-134 1	1.71
939061	AE1-134 2	1.71
939321	AE1-163 C O1	7.36
939322	AE1-163 E O1	45.2
939351	AE1-166 C O1	14.82
939352	AE1-166 E O1	13.68
939401	AE1-172 C O1	9.71
939402	AE1-172 E O1	45.45
939691	AE1-199	2.99
939701	AE1-201 C	2.51
939702	AE1-201 E	0.55
939732	AE1-204 E	0.37
939741	AE1-205 C O1	12.73
939742	AE1-205 E O1	17.58
939861	AE1-222 1	100.77
939871	AE1-222 2	101.86
939921	AE1-228 C O1	12.57
939922	AE1-228 E O1	8.38
939961	AE1-233 C O1	2.91
939962	AE1-233 E O1	12.02
940101	AE1-252 C O1	15.49
940102	AE1-252 E O1	10.33
AB2-013	AB2-013	20.27
AE1-033	AE1-033	22.58
BLUEG	BLUEG	8.03

Bus #	Bus	MW Impact
CALDERWOOD	CALDERWOOD	0.1
CANNELTON	CANNELTON	0.09
CARR	CARR	0.98
CATAWBA	CATAWBA	0.39
CBM-S1	CBM-S1	1.88
CBM-W1	CBM-W1	38.11
CBM-W2	CBM-W2	72.48
CHEOAH	CHEOAH	0.1
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.96
ELMERSMITH	ELMERSMITH	0.07
G-007	G-007	2.75
GIBSON	GIBSON	0.0
HAMLET	HAMLET	1.49
MEC	MEC	47.56
O-066	O-066	9.26
RENSSELAER	RENSSELAER	0.77
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.96
WEC	WEC	9.96
Z1-043	Z1-043	36.25

Affected Systems

MISO

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

Contingency Name	Contingency Definition
COMED_P2-2_111_EJ-138B__2	CONTINGENCY 'COMED_P2-2_111_EJ-138B__2' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271390 TO BUS 272724 CKT 1 / ELECT; B 138 WARRE;BT 138 TRIP BRANCH FROM BUS 271390 TO BUS 275239 CKT 1 / ELECT; B 138 ELECT;2M 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 DISCONNECT BUS 271560 / GLIDD;BT 138 DISCONNECT BUS 272522 / SUGAR; B 138 REMOVE SWSHUNT FROM BUS 271390 END
COMED_P4_111-38-TR82___	CONTINGENCY 'COMED_P4_111-38-TR82___' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271390 TO BUS 272724 CKT 1 / ELECT; B 138 WARRE;BT 138 TRIP BRANCH FROM BUS 271390 TO BUS 275239 CKT 1 / ELECT; B 138 ELECT;2M 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 DISCONNECT BUS 271560 / GLIDD;BT 138 DISCONNECT BUS 272522 / SUGAR; B 138 DISCONNECT BUS 275239 / ELECT;2M 138 REMOVE SWSHUNT FROM BUS 271390 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_P1-2_138-L11106_B-R	CONTINGENCY 'COMED_P1-2_138-L11106_B-R' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 271558 CKT 1 / GLIDD;BT 138 GLIDD; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 272728 CKT 1 / GLIDD;BT 138 WATER; B 138 TRIP BRANCH FROM BUS 271586 TO BUS 272114 CKT 1 / W541 ; B 138 N AUR; B 138 TRIP BRANCH FROM BUS 272114 TO BUS 272522 CKT 1 / N AUR; B 138 SUGAR; B 138 TRIP BRANCH FROM BUS 272522 TO BUS 271560 CKT 1 / SUGAR; B 138 GLIDD;BT 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 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_144-45-BT6-8__	CONTINGENCY 'COMED_P4_144-45-BT6-8__' TRIP BRANCH FROM BUS 934400 TO BUS 270916 CKT 1 / AD1-064 TAP 345 WAYNE ; B 345 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 270730 TO BUS 270916 CKT 1 / ELEC JUNC; B 345 WAYNE ; B 345 TRIP BRANCH FROM BUS 270916 TO BUS 270917 CKT 1 / WAYNE ; B 345 WAYNE ; R 345 END

Contingency Name	Contingency Definition
COMED_P1-2_345-L0626__B-R-C	CONTINGENCY 'COMED_P1-2_345-L0626__B-R-C' TRIP BRANCH FROM BUS 934400 TO BUS 270916 CKT 1 / AD1-064 TAP 345 WAYNE ; B 345 END
COMED_P4_006-45-BT3-4__	CONTINGENCY 'COMED_P4_006-45-BT3-4__' TRIP BRANCH FROM BUS 274768 TO BUS 270678 CKT 1 / LEECO;BP 345 BYRON; B 345 REMOVE UNIT 1 FROM BUS 274656 / BYRON;1U 25 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
COMED_P4_111-38-L11106_	CONTINGENCY 'COMED_P4_111-38-L11106_' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 271558 CKT 1 / GLIDD;BT 138 GLIDD; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 272728 CKT 1 / GLIDD;BT 138 WATER; B 138 TRIP BRANCH FROM BUS 271586 TO BUS 272114 CKT 1 / W541 ; B 138 N AUR; B 138 TRIP BRANCH FROM BUS 272114 TO BUS 272522 CKT 1 / N AUR; B 138 SUGAR; B 138 TRIP BRANCH FROM BUS 272522 TO BUS 271560 CKT 1 / SUGAR; B 138 GLIDD;BT 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 TRIP BRANCH FROM BUS 271390 TO BUS 272724 CKT 1 / ELECT; B 138 WARRE;BT 138 TRIP BRANCH FROM BUS 271390 TO BUS 275239 CKT 1 / ELECT; B 138 ELECT;2M 138 DISCONNECT BUS 271560 / GLIDD;BT 138 DISCONNECT BUS 272522 / SUGAR; B 138 REMOVE SWSHUNT FROM BUS 271390 / ELEC JUNC; B 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_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_P2-1_094-L11323__	CONTINGENCY 'COMED_P2-1_094-L11323__' TRIP BRANCH FROM BUS 271680 TO BUS 272756 CKT 1 / HAUME; B 138 W DEK;3T 138 END

Contingency Name	Contingency Definition
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
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_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
AEP_P1-2_#697A	CONTINGENCY 'AEP_P1-2_#697A' OPEN BRANCH FROM BUS 243229 TO BUS 274804 CKT 1 / 243229 05OLIVE 345 274804 UNIV PK N;RP 345 1 END
COMED_P4_113-38-L11323_	CONTINGENCY 'COMED_P4_113-38-L11323_' TRIP BRANCH FROM BUS 271680 TO BUS 272756 CKT 1 / HAUME; B 138 W DEK;3T 138 TRIP BRANCH FROM BUS 272730 TO BUS 271558 CKT 1 / WATER;3B 138 GLIDD; B 138 TRIP BRANCH FROM BUS 272730 TO BUS 272728 CKT 1 / WATER;3B 138 WATER; B 138 TRIP BRANCH FROM BUS 272756 TO BUS 272730 CKT 1 / W DEK;3T 138 WATER;3B 138 TRIP BRANCH FROM BUS 272756 TO BUS 272759 CKT 1 / W DEK;3T 138 W DEK;4R 138 MOVE 100 PERCENT LOAD FROM BUS 272759 TO BUS 272761 / W DEK;4R 138 W DEK;7R 138 MOVE 100 PERCENT LOAD FROM BUS 272728 TO BUS 271558 / WATER; B 138 GLIDD; B 138 DISCONNECT BUS 272728 / WATER; B 138 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

Contingency Name	Contingency Definition
COMED_P7_138-L11106_B-R_+_345-L15502_B-R	CONTINGENCY 'COMED_P7_138-L11106_B-R_+_345-L15502_B-R' TRIP BRANCH FROM BUS 271390 TO BUS 271586 CKT 1 / ELECT; B 138 W541 ; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 271558 CKT 1 / GLIDD;BT 138 GLIDD; B 138 TRIP BRANCH FROM BUS 271560 TO BUS 272728 CKT 1 / GLIDD;BT 138 WATER; B 138 TRIP BRANCH FROM BUS 271586 TO BUS 272114 CKT 1 / W541 ; B 138 N AUR; B 138 TRIP BRANCH FROM BUS 272114 TO BUS 272522 CKT 1 / N AUR; B 138 SUGAR; B 138 TRIP BRANCH FROM BUS 272522 TO BUS 271560 CKT 1 / SUGAR; B 138 GLIDD;BT 138 MOVE 100 PERCENT LOAD FROM BUS 271586 TO BUS 271587 / W541 ; B 138 W541 ; R 138 MOVE 100 PERCENT LOAD FROM BUS 272522 TO BUS 272523 / SUGAR; B 138 SUGAR; R 138 CLOSE LINE FROM BUS 272114 TO BUS 272115 CKT 1 / N AUR; B 138 N AUR; R 138 TRIP BRANCH FROM BUS 270828 TO BUS 270730 CKT 1 / NELSON ; B 345 ELEC JUNC; B 345 END
COMED_P4_144-45-BT6-7__	CONTINGENCY 'COMED_P4_144-45-BT6-7__' TRIP BRANCH FROM BUS 270730 TO BUS 270916 CKT 1 / ELEC JUNC; B 345 WAYNE ; B 345 TRIP BRANCH FROM BUS 270916 TO BUS 270917 CKT 1 / WAYNE ; B 345 WAYNE ; R 345 TRIP BRANCH FROM BUS 270916 TO BUS 270900 CKT 1 / WAYNE ; B 345 TOLLWAY ; B 345 DISCONNECT BUS 275228 / WAYNE ;1M 138 END
Base Case	
COMED_P1-2_765-L11216__-S	CONTINGENCY 'COMED_P1-2_765-L11216__-S' TRIP BRANCH FROM BUS 270644 TO BUS 270607 CKT 1 / WILTO; 765 COLLI; 765 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_#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_138-L11323_R-R	CONTINGENCY 'COMED_P1-2_138-L11323_R-R' TRIP BRANCH FROM BUS 271680 TO BUS 272756 CKT 1 / HAUME; B 138 W DEK;3T 138 TRIP BRANCH FROM BUS 272730 TO BUS 271558 CKT 1 / WATER;3B 138 GLIDD; B 138 TRIP BRANCH FROM BUS 272730 TO BUS 272728 CKT 1 / WATER;3B 138 WATER; B 138 TRIP BRANCH FROM BUS 272756 TO BUS 272730 CKT 1 / W DEK;3T 138 WATER;3B 138 TRIP BRANCH FROM BUS 272756 TO BUS 272759 CKT 1 / W DEK;3T 138 W DEK;4R 138 MOVE 100 PERCENT LOAD FROM BUS 272759 TO BUS 272761 / W DEK;4R 138 W DEK;7R 138 END

Contingency Name	Contingency Definition
AEP_P4_#8805_05OLIVE 345_D	CONTINGENCY 'AEP_P4_#8805_05OLIVE 345_D' OPEN BRANCH FROM BUS 243229 TO BUS 932600 CKT 1 / 243229 05OLIVE 345 932600 AC2-080 TAP 345 1 /* CONTINGENCY LINE ADDED FOR AE1 BUILD OPEN BRANCH FROM BUS 243229 TO BUS 274804 CKT 1 / 243229 05OLIVE 345 274804 UNIV PK N;RP 345 1 END
COMED_P4_112-65-BT2-3__	CONTINGENCY 'COMED_P4_112-65-BT2-3__' TRIP BRANCH FROM BUS 270644 TO BUS 270607 CKT 1 / WILTO; 765 COLLI; 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_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_112-65-BT5-6__	CONTINGENCY 'COMED_P4_112-65-BT5-6__' TRIP BRANCH FROM BUS 270644 TO BUS 270607 CKT 1 / WILTO; 765 COLLI; 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
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.