Generation Interconnection

Feasibility Study Report

for

Queue Project AE1-252

LORETTO-WILTON CENTER

90 MW Capacity / 150 MW Energy

July 2019

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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.

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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.

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General

The Interconnection Customer (IC), has proposed a Solar generating facility located in Livingston County, Illinois. The installed facilities will have a total capability of 150 MW with 90 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is October 1, 2021. This study does not imply a TO commitment to this in-service date.

Queue Number	**AE1-252**
Project Name	LORETTO-WILTON CENTER
State	Illinois
County	Livingston
Transmission Owner	ComEd
MFO	150
MWE	150
MWC	90
Fuel	Solar
Basecase Study Year	2022

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Point of Interconnection

Queue Position AE1-252, a 150 MW solar facility, proposes to interconnect with the ComEd transmission system by tying into the 345kV bus at the Interconnection Substation proposed in the AE1-172 project on the Loretto; B to Wilton; B 345 kV line.

Cost Summary

The AE1-252 project will be responsible for the following costs:

Description	Total Cost
Attachment Facilities	$1,000,000
Direct Connection Network Upgrade	$0
Non Direct Connection Network Upgrades	$3,000,000
Total Costs	$4,000,000

In addition, the AE1-252 project may be responsible for a contribution to the following costs

Description	Total Cost
System Upgrades	$221,610,120

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

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Transmission Owner Scope of Work

Attachment Facilities

The AE1-252 generator lead would interconnect to the 345kV bus at the Interconnection Substation proposed in the AE1-172 project. The required Attachment Facilities are one 345kV line MOD, a dead-end structure and revenue metering as shown in the one-line diagram.

Scope of Work	Cost Estimate
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

Direct Connection Cost Estimate

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

None.

Non-Direct Connection Cost Estimate

Prior to the AE1-252 queue project, AE1-172 would create an Interconnection Substation named "Fivemile Creek" in a breaker-and-a-half configuration. The generator lead for AE1-252 would be interconnected to this substation by expanding it.

The scope of work includes the installation of one 345 kV circuit breaker at this Interconnection Substation to create a line position for the IC's generator lead, as shown in the one-line diagram below. Please note that if the AE1-172 project withdraws from the New Services queue, the interconnection scope for AE1-252 would change.

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

The estimated cost for the Non-Direct Connection Network upgrade is given below.

Scope of Work	Cost Estimate
Installation of one 345kV circuit breaker at Fivemile Creek TSS and relay/protection work	$3,000,000
Total Cost Estimate (see notes below on cost estimate)	$3,000,000

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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.

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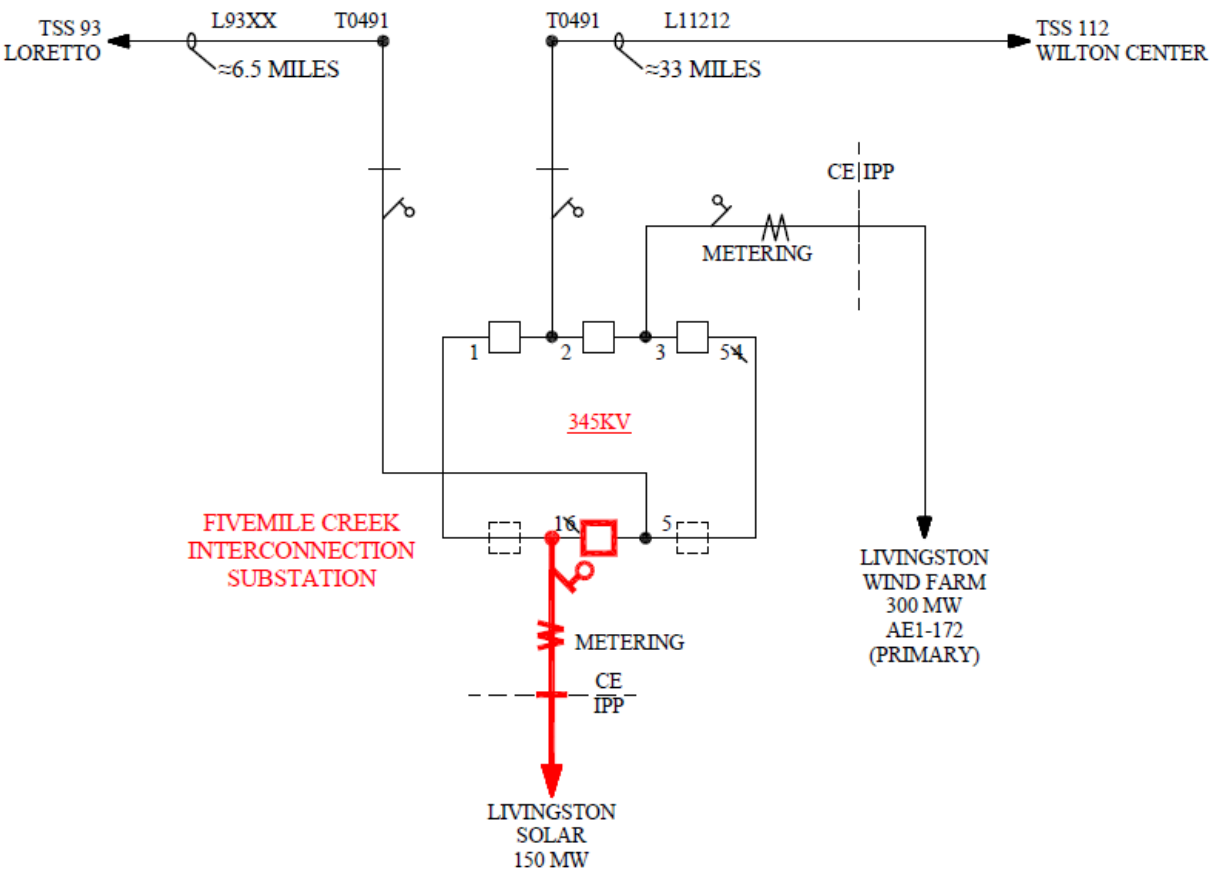
AE1-252
PRIMARY POI



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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.

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Primary POI Network Impacts

The Queue Project AE1-252 was evaluated as a 150 MW (Capacity 90 MW) injection tapping the Loretto; B to Wilton; B 345 kV bus in the ComEd area. Project AE1-252 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-252 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
925233	243219	05DUMONT	AEP	255113	17STILLWELL	NIPS	1	COMED_P4_023-65-BT4-5__	breaker	1409.0	99.76	100.39	DC	10.46
307644	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	101.93	102.25	DC	43.87
925198	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	101.93	102.25	DC	43.87
307573	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1334.0	99.52	100.76	DC	16.5

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
307533	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	117.87	118.19	DC	11.64
307362	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	137.21	137.64	DC	12.66
307363	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	137.2	137.6	DC	12.71
307364	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	136.68	137.11	DC	12.72

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
307365	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.68	137.11	DC	12.72
924570	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	182.77	183.14	DC	20.47
308729	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	110.84	111.1	DC	47.07
308730	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	108.78	109.08	DC	47.13
926423	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	110.84	111.1	DC	47.07
926424	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	108.78	109.08	DC	47.13
307402	270668	BLUEMOUND; B	CE	270852	PONTIAC ; B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1528.0	117.07	118.15	DC	16.55
307538	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	117.66	117.99	DC	17.56
307521	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	118.87	119.34	DC	17.77
307522	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	118.38	118.84	DC	17.8
307523	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	118.3	118.77	DC	17.82
307524	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	118.3	118.76	DC	17.82
307404	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.41	132.78	DC	11.64
924834	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.41	132.78	DC	11.64
307892	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	104.54	107.29	DC	41.91
307367	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	137.21	137.64	DC	12.66
307368	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	137.2	137.6	DC	12.71
307369	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	136.68	137.11	DC	12.72
307370	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.68	137.11	DC	12.72
307228	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	170.0	170.32	DC	27.04
307230	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.75	170.23	DC	27.58
307260	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	163.47	163.98	DC	17.53
307261	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	162.97	163.48	DC	17.56
307262	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	162.92	163.43	DC	17.58
307263	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	162.91	163.42	DC	17.59
307317	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	143.81	144.29	DC	13.94
307318	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	142.62	143.14	DC	14.02
307319	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	142.65	143.13	DC	14.03
307320	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	142.65	143.13	DC	14.03
307321	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	142.64	143.12	DC	14.03
924703	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	143.81	144.29	DC	13.94

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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
924704	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	142.62	143.14	DC	14.02
924705	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	142.65	143.13	DC	14.03
924706	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	142.65	143.13	DC	14.03
924707	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	142.64	143.12	DC	14.03
307227	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	170.0	170.32	DC	27.04
307232	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.75	170.23	DC	27.58
307390	905080	W4-005 TAP	CE	270668	BLUEMOUND; B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1334.0	118.0	119.23	DC	16.52
308566	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	144.96	147.31	DC	43.36
308567	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P7_345-L2001__B-S_+_345-L2003__R-S	tower	1846.0	142.43	144.89	DC	45.28
307866	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	112.28	115.03	DC	41.91
308540	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	152.15	154.5	DC	43.36
308541	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P7_345-L2001__B-S_+_345-L2003__R-S	tower	1846.0	149.97	152.42	DC	45.28
307823	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	single	1528.0	118.5	122.46	DC	60.51
307824	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-A	single	1528.0	113.17	117.14	DC	60.51

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
926079	243219	05DUMONT	AEP	255113	17STILLWELL	NIPS	1	AEP_P1-2_#695A	operation	1409.0	99.75	100.38	DC	10.45
308264	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P1-2_#695A	operation	1091.0	116.76	117.09	DC	11.74
308070	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P1-2_#695A	operation	1091.0	136.67	137.1	DC	12.73

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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
925394	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P1-2_#695A	operation	1409.0	179.63	180.01	DC	20.9
308320	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	109.48	109.74	DC	40.95
308321	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	101.9	102.22	DC	43.89
925923	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	109.48	109.74	DC	40.95
925924	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	101.9	102.22	DC	43.89
308263	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P1-2_#695A	operation	1441.0	116.87	117.2	DC	17.65
307854	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	208.98	210.59	DC	24.58
307856	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	Base Case	operation	1364.0	156.06	158.34	DC	31.08
308231	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P1-2_#695A	operation	1399.0	118.25	118.72	DC	17.84
308119	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.17	131.54	DC	11.74
925639	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.17	131.54	DC	11.74
308152	270796	KINCAID ; B	CE	347955	7AUSTIN	AMIL	1	COMED_P1-2_345-L11212_B-S-C-A	operation	956.0	124.31	126.37	DC	19.87
307880	270852	PONTIAC ; B	CE	270704	LORETTO ; B	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	197.49	199.1	DC	24.55
307882	270852	PONTIAC ; B	CE	270704	LORETTO ; B	CE	1	Base Case	operation	1364.0	143.48	145.76	DC	31.06
307887	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-A	operation	1528.0	190.13	194.71	DC	69.85
307891	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	Base Case	operation	1334.0	128.24	129.95	DC	22.74
308066	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P1-2_#695A	operation	1091.0	136.67	137.1	DC	12.73
308345	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P1-2_765-L11216__-S	operation	1379.0	106.72	106.92	DC	17.0
308319	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P1-2_765-L11216__-S	operation	1379.0	109.48	109.78	DC	17.76
307988	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P1-2_#695A	operation	1399.0	162.87	163.38	DC	17.6
308052	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	142.64	143.12	DC	14.03
925564	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	142.64	143.12	DC	14.03
308042	348847	7BROKAW	AMIL	937160	AD2-153 TAP	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	142.46	143.54	DC	16.24
307926	917500	Z2-087 TAP	CE	270853	PONTIAC ; R	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	172.91	173.98	DC	16.25
307974	924040	AB2-047 TAP	CE	917500	Z2-087 TAP	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	163.62	164.69	DC	16.24
307983	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	161.54	164.56	DC	46.22
307987	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	Base Case	operation	1364.0	143.58	146.56	DC	40.68
308365	934730	AD1-100 TAP	CE	270670	BRAIDWOOD; B	CE	1	COMED_P1-2_345-L11212_B-S-A	operation	1528.0	99.71	103.33	DC	55.3

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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
307861	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-A	operation	1528.0	203.13	207.7	DC	69.85
307864	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	Base Case	operation	1334.0	140.9	142.61	DC	22.74
307946	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	168.23	171.26	DC	46.22
307950	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	Base Case	operation	1364.0	153.48	156.46	DC	40.68
308008	937160	AD2-153 TAP	CE	924040	AB2-047 TAP	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	152.76	153.83	DC	16.24
307818	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	219.63	226.23	DC	100.85
307820	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	Base Case	operation	1364.0	167.14	173.58	DC	87.84

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System Reinforcements

ID	Index	Facility	Upgrade Description	Cost
307232	18	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
307227	17	WILTON ;3M 345.0 kV - WILTON ; 765.0 kV Ckt 1		
307230	14	WILTON ; R 345.0 kV - WILTON ;4M 345.0 kV Ckt 1		
307228	13	WILTON ; B 345.0 kV - WILTON ;3M 345.0 kV Ckt 1		
307538	8	BURNHAM ;0R 345.0 kV - 17MUNSTER 345.0 kV Ckt 1	**CE** Description : Upgrade 2-345kV circuit breakers & CT's,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 : $15,500,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$15,500,000
307368,307369,307370,307367	12	ST JOHN ; T 345.0 kV - 17GREEN_ACRE 345.0 kV Ckt 1	**CE** Description : Reconductor 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 : $12,100,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$12,100,000
307362,307363,307364,307365	5	17STJOHN 345.0 kV - ST JOHN ; T 345.0 kV Ckt 1		
307892	11	PONTIAC ; R 345.0 kV - AD1-133 TAP 345.0 kV Ckt 1	**CE** Description : No Violation. The SSTE rating is 1797 MVA.	$0
307521,307522,307523,307524	9	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

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ID	Index	Facility	Upgrade Description	Cost
925198,926423,926424,308729,308730,307644	2	WILTON ; 765.0 kV - 05DUMONT 765.0 kV Ckt 1	**CE** Description : No Violation. The SSTE rating is 4553 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
308540,308541	22	AD2-137 TAP 345.0 kV - WILTON ; B 345.0 kV Ckt 1	**CE** Description : Replace 2 345kV circuit breakers and station conductor @ Wilton Center, Reconductor 5 miles, replace 1 MOD, relay upgrade. CT upgrades for 345kV BT Circuit Breakers 4-5 & 5-6. Time Estimate : 30.0 Months Cost : $21,600,000	$21,600,000
307402	7	BLUEMOUND; B 345.0 kV - PONTIAC ; B 345.0 kV Ckt 1	**CE** Description : Sag mitigation on L8002. Additional pole work may be required. This cost is not included in this estimate. A final cost will be determined during the Facilities Study phase. Time Estimate : 30.0 Months Cost : $15,300,000	$15,300,000
307866	21	AD1-133 TAP 345.0 kV - DRESDEN ; R 345.0 kV Ckt 1	**CE** Description : No Violation. The SSTE rating is 1797 MVA.	$0
307533	4	17GREEN_ACRE 345.0 kV - GREENACRE; 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
307260,307261,307262,307263	15	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. Relay package upgrade required. Time Estimate : 24-30 Months Cost : $6,500,000 **NIPS** Description : The external (i.e. Non-PJM) Transmission Owner, NIPS, will not evaluate this violation until the impact study phase.	$6,500,000

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ID	Index	Facility	Upgrade Description	Cost
924704,924705,924706,924707,307317,307318,307319,307320,307321,924703	16	UNIV PK N;RP 345.0 kV - 05OLIVE 345.0 kV Ckt 1	**CE** Description : Line conductor 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 : 24-30 Months Cost : $25,300,000 **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. 2) Replace 5 Jumpers (Sub cond 2156 ACSR 84/19 STD at Olive station, estimated cost : $175,000 3) An engineering study will need to be conducted to determine if the Olive station Relay Compliance Trip limits settings (Existing Trip Limit 2293 Amps - Olive) can be adjusted to mitigate the overload. Estimated Cost: $25,000. New relay packages will be required if the settings cannot be adjusted, Estimated Cost: $600,000. Time Estimate : 24-30 Months Cost : $362,560	$25,662,560
925233	1	05DUMONT 345.0 kV - 17STILLWELL 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
924570	6	17STILLWELL 345.0 kV - 05DUMONT 345.0 kV Ckt 1		

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ID	Index	Facility	Upgrade Description	Cost
307824,307823	23	AE1-172 TAP 345.0 kV - AD1-100 TAP 345.0 kV Ckt 1	**CE** Description : Upgrade 2-345kV Bus Tie circuit breakers at station. Time Estimate : 30.0 Months Cost : $6,000,000	$6,000,000
924834,307404	10	GREENACRE; T 345.0 kV - 05OLIVE 345.0 kV Ckt 1	**CE** Description : Sag mitigation of line. Additional tower work may be required. Scope and cost for tower work will be deteermined during the Facilities Study phase. Time Estimate : 30.0 Months Cost : $26,300,000 **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. 2) Replace 5 Jumpers (Sub cond 2156 ACSR 84/19 STD at Olive station, estimated cost : $175,000 3) An engineering study will need to be conducted to determine if the Olive station Relay Compliance Trip limits settings (Existing Trip Limit 2293 Amps - Olive) can be adjusted to mitigate the overload. Estimated Cost: $25,000. New relay packages will be required if the settings cannot be adjusted, Estimated Cost: $600,000. Time Estimate : 24-30 Months Cost : $362,560	$26,662,560
308566,308567	20	AD1-100 TAP 345.0 kV - AD2-137 TAP 345.0 kV Ckt 1	**CE** Description : Upgrade 2-345kV circuit breakers at TSS 112, Line conductor upgrade and station conductor upgrades at the two line terminals. Time Estimate : 30.0 Months Cost : $39,300,000	$39,300,000
307573	3	LATHAM ; T 345.0 kV - W4-005 TAP 345.0 kV Ckt 1	**CE** Description : No Violation. ComEd 345kV L9603 SSTE rating is 1863 MVA. The Ameren rating for this line is the limiting rating at 1793 MVA.	$0
307390	19	W4-005 TAP 345.0 kV - BLUEMOUND; B 345.0 kV Ckt 1	**CE** Description : No Violation. ComEd L9515 SSTE rating is 1863 MVA Z(assumes field completion of W4-005 project).	$0
			TOTAL COST	**$221,610,120**

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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
925233	243219	05DUMONT	AEP	255113	17STILLWELL	NIPS	1	COMED_P4_023-65-BT4-5__	breaker	1409.0	99.76	100.39	DC	10.46

Bus #	Bus	MW Impact
916502	Z1-106 E1	1.49
916504	Z1-106 E2	1.49
916512	Z1-107 E	3.12
916522	Z1-108 E	2.94
920272	AA2-123 E	2.88
936972	AD2-131 E O1	2.17
938012	AE1-002 E O1	15.96
938671	AE1-089 C	9.68
938672	AE1-089 E	13.29
939683	AE1-198 BAT	11.12
939732	AE1-204 E	0.65
940103	AE1-252 EBAT	10.46
950031	J301 C	1.96
950032	J301 E	7.83
950041	J308 C	5.81
950042	J308 E	23.23
950121	J392	38.42
950161	J401	1.26
950241	J419	9.45
950302	J453 E	0.88
950311	G934 C	3.01
950312	G934 E	12.05
950351	J466	2.91
950361	J469	0.18
950791	J201 C	0.39
950792	J201 E	1.57
950871	J246 C	0.14
950872	J246 E	0.55
950942	J325 E	0.39
950951	J327 C	2.91
950952	J327 E	8.72
951011	J340 C	1.94
951012	J340 E	5.81
951051	J354 C	1.01
951052	J354 E	3.02
951531	J533 C	4.0
951532	J533 E	15.98
951571	J538 C	2.87
951572	J538 E	11.47
951581	J540	4.89
951731	J446 C	1.94

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Bus #	Bus	MW Impact
951732	J446 E	10.51
951941	J602 C	3.07
951942	J602 E	16.6
952161	J571	0.64
952201	J589 C	3.1
952202	J589 E	16.77
952312	J646 E	0.15
952401	J752 C	1.52
952402	J752 E	8.21
952471	J708	19.34
952611	J717 C	3.08
952612	J717 E	16.68
952761	J728 C	2.87
952762	J728 E	15.53
952811	J759	3.96
952821	J762	11.29
952861	J783 C	3.77
952862	J783 E	0.16
952881	J758	19.88
952941	J921 C	2.34
952942	J921 E	12.65
952961	J203 C	3.01
952962	J203 E	16.29
952971	J793	127.06
952981	J579 C	3.2
952982	J579 E	17.32
953071	J794 C	0.19
953072	J794 E	1.05
953101	J714 C	1.65
953102	J714 E	8.92
953161	J837 C	1.74
953162	J837 E	9.44
953171	J838 C	1.74
953172	J838 E	9.44
953271	J701 C	0.74
953272	J701 E	4.03
953291	J796	23.54
953321	J799	17.88
953351	J805	12.86
953361	J806	14.69
953381	J809	10.12
953421	J841	69.13
953501	J478 C	1.98
953502	J478 E	10.7
953541	J632 C	3.26
953542	J632 E	17.61
953751	J827	15.48
953771	J832	9.98
953781	J833	9.45
953811	J839	9.64
953831	J842 C	1.67
953832	J842 E	9.05

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Bus #	Bus	MW Impact
953841	J843 C	1.7
953842	J843 E	9.19
953861	J846	13.44
953931	J856	4.37
953941	J857	12.36
954011	J865	7.69
954111	J875	14.35
954231	J890 C	1.56
954232	J890 E	8.43
954351	J903	6.68
954381	J906 C	1.59
954382	J906 E	8.61
954421	J913	11.18
954431	J914	3.05
954541	J931 C	2.39
954542	J931 E	12.93
954581	J936	53.54
954591	J937	54.88
954711	J851 C	0.56
954712	J851 E	3.01
AC1-056	AC1-056	6.3
AD2-098	AD2-098	0.99
AE1-080A	AE1-080A	28.97
BAYOU	BAYOU	2.68
BIG_CAJUN1	BIG_CAJUN1	3.65
BIG_CAJUN2	BIG_CAJUN2	7.38
CBM-N	CBM-N	1.88
CBM-S2	CBM-S2	1.51
CHOCTAW	CHOCTAW	1.86
COFFEEN	COFFEEN	2.9
COTTONWOOD	COTTONWOOD	11.21
CPLE	CPLE	0.83
DUCKCREEK	DUCKCREEK	13.24
EDWARDS	EDWARDS	6.53
ELMERSMITH	ELMERSMITH	0.06
FARMERCITY	FARMERCITY	2.93
G-007A	G-007A	5.81
GIBSON	GIBSON	0.07
IPL	IPL	0.24
LGEE	LGEE	0.8
MECS	MECS	14.39
NEWTON	NEWTON	4.39
NYISO	NYISO	8.16
O-066A	O-066A	2.72
PRAIRIE	PRAIRIE	11.96
SMITHLAND	SMITHLAND	0.45
TATANKA	TATANKA	6.5
TILTON	TILTON	2.24
TVA	TVA	2.01
UNIONPOWER	UNIONPOWER	1.66
VFT	VFT	15.63

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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
926423	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	110.84	111.1	DC	47.07

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

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
307573	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1334.0	99.52	100.76	DC	16.5

Bus #	Bus	MW Impact
274650	KINCAID ;1U	12.81
274651	KINCAID ;2U	12.85
276150	W2-048 E	2.01
909052	X2-022 E	27.87
917501	Z2-087 C	0.59
917502	Z2-087 E	25.82
924041	AB2-047 C O1	4.82
924042	AB2-047 E O1	32.28
924261	AB2-070 C O1	3.86
924262	AB2-070 E O1	25.85
925771	AC1-053 C	3.86
925772	AC1-053 E	25.85
935141	AD1-148	7.28
936771	AD2-100 C O1	22.58
936772	AD2-100 E O1	15.05
936972	AD2-131 E O1	8.96
937161	AD2-153 C O1	3.92
937162	AD2-153 E O1	18.35
937171	AD2-154 C O1	3.92
937172	AD2-154 E O1	18.35
938012	AE1-002 E O1	4.5
940103	AE1-252 EBAT	16.5
950291	J291	3.09
950701	J196 C	0.68
950702	J196 E	2.74
951001	J339	6.46
951741	J474 C	3.02
951742	J474 E	16.32
952251	J641	9.84
952271	J644	9.95
952321	J734	5.43
952651	J756 C	3.6
952652	J756 E	19.46
952871	J757 C	4.27
952872	J757 E	23.11
953241	J467 C	1.27
953242	J467 E	6.86
953401	J811	7.81
953651	J815	27.31
953741	J826 C	1.67

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Bus #	Bus	MW Impact
953742	J826 E	9.04
953801	J835 C	2.81
953802	J835 E	15.22
953851	J845 C	1.63
953852	J845 E	8.82
953881	J848 C	4.2
953882	J848 E	22.73
954081	J872 C	3.22
954082	J872 E	17.41
954181	J884	12.39
954411	J912	10.31
954721	J750 C	2.57
954722	J750 E	13.9
CBM-N	CBM-N	0.44
CBM-S1	CBM-S1	7.96
CBM-S2	CBM-S2	2.44
CBM-W2	CBM-W2	91.14
CIN	CIN	7.91
CPLE	CPLE	0.86
DEARBORN	DEARBORN	0.53
G-007A	G-007A	1.49
IPL	IPL	4.32
LGEE	LGEE	1.2
MEC	MEC	7.06
NYISO	NYISO	1.93
O-066A	O-066A	0.69
VFT	VFT	3.99

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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
307533	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	117.87	118.19	DC	11.64

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

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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

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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

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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

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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
307365	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.68	137.11	DC	12.72

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.02
274654	BRAIDWOOD;1U	19.04
274655	BRAIDWOOD;2U	18.23
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.87
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.87
274722	S-055 E	8.44
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274832	U4-027	7.92
274859	EASYR;U1 E	8.15
274860	EASYR;U2 E	8.15
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.75
274891	CAYUG;2U E	9.75
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.76
290108	LEEDK;1U E	18.03
293061	N-015 E	11.58
293516	O-009 E1	6.68
293517	O-009 E2	3.39
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.22
293716	O-029 E	3.96
293717	O-029 E	3.64
293771	O-035 E	3.58
294392	P-010 E	14.71
294763	P-046 E	6.96
295109	WESTBROOK E	4.15
295111	SUBLETTE E	1.92
910542	X3-005 E	0.45

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Bus #	Bus	MW Impact
914641	Y2-103	33.74
915011	Y3-013 1	2.81
915021	Y3-013 2	2.81
915031	Y3-013 3	2.81
916211	Z1-072 E	3.54
916221	Z1-073 E	4.0
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	13.02
919581	AA2-030	13.02
920272	AA2-123 E	1.82
924471	AB2-096	31.56
925161	AB2-173	2.32
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	0.84
926822	AC1-168 E O1	5.67
927091	AC1-204 1	55.21
927101	AC1-204 2	55.14
927201	AC1-214 C O1	1.5
927202	AC1-214 E O1	4.77
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	48.94
930501	AB1-091 O1	50.6
930741	AB1-122 1O1	53.06
930751	AB1-122 2O1	56.3
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77

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Bus #	Bus	MW Impact
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.05
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.18
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.2
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.18
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	5.1
934702	AD1-098 E O1	3.73
934721	AD1-100 C	14.28
934722	AD1-100 E	66.63
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.98
934882	AD1-117 E	2.65
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.18
935002	AD1-133 E O1	10.12
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	16.74
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	8.94
936792	AD2-102 E	8.59
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.37
937031	AD2-137 C O1	2.45
937032	AD2-137 E O1	11.47
937051	AD2-140 C O1	2.45
937052	AD2-140 E O1	11.47
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.48
937071	AD2-142 C O1	4.9

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Bus #	Bus	MW Impact
937072	AD2-142 E O1	22.93
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
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	2.52
937321	AD2-175 C	11.32
937322	AD2-175 E	7.54
937331	AD2-176 C O1	5.47
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	3.25
937532	AD2-214 E	1.53
938012	AE1-002 E O1	4.92
938511	AE1-070 1	6.98
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	10.2
939051	AE1-134 1	1.01
939061	AE1-134 2	1.01
939321	AE1-163 C O1	4.3
939322	AE1-163 E O1	26.42
939351	AE1-166 C O1	7.6
939352	AE1-166 E O1	7.02
939401	AE1-172 C O1	4.48
939402	AE1-172 E O1	20.97
939641	AE1-194 C	18.96
939642	AE1-194 E	126.87
939651	AE1-195 C	18.96
939652	AE1-195 E	126.87
939691	AE1-199	1.77
939701	AE1-201 C	1.49
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.6
939871	AE1-222 2	62.17
939921	AE1-228 C O1	7.46
939922	AE1-228 E O1	4.97
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.14
940101	AE1-252 C O1	7.63
940102	AE1-252 E O1	5.09
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.44

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Bus #	Bus	MW Impact
BLUEG	BLUEG	5.04
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.0
CBM-W2	CBM-W2	37.11
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.13
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.54
O-066	O-066	5.29
RENSSELAER	RENSSELAER	0.44
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.96
Z1-043	Z1-043	20.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
924570	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	182.77	183.14	DC	20.47

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

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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

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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

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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

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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
307402	270668	BLUEMOUND; B	CE	270852	PONTIAC ; B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1528.0	117.07	118.15	DC	16.55

Bus #	Bus	MW Impact
274650	KINCAID ;1U	12.75
274651	KINCAID ;2U	12.79
274853	TWINGROVE;U1	3.02
274854	TWINGROVE;U2	3.02
276150	W2-048 E	2.0
290261	S-027 E	78.75
290265	S-028 E	78.75
905081	W4-005 C	2.58
905082	W4-005 E	112.81
909052	X2-022 E	27.75
917501	Z2-087 C	0.59
917502	Z2-087 E	25.71
924041	AB2-047 C O1	4.8
924042	AB2-047 E O1	32.14
924261	AB2-070 C O1	3.85
924262	AB2-070 E O1	25.73
925771	AC1-053 C	3.85
925772	AC1-053 E	25.74
935141	AD1-148	7.25
936771	AD2-100 C O1	22.49
936772	AD2-100 E O1	14.99
936972	AD2-131 E O1	8.93
937161	AD2-153 C O1	3.9
937162	AD2-153 E O1	18.26
937171	AD2-154 C O1	3.9
937172	AD2-154 E O1	18.26
937211	AD2-159 C	12.19
937212	AD2-159 E	57.07
938012	AE1-002 E O1	4.54
940103	AE1-252 EBAT	16.55
950291	J291	3.09
950701	J196 C	0.68
950702	J196 E	2.74
951001	J339	6.46
951741	J474 C	3.02
951742	J474 E	16.32
952251	J641	9.84
952271	J644	9.95
952321	J734	5.43
952651	J756 C	3.6
952652	J756 E	19.46

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Bus #	Bus	MW Impact
952871	J757 C	4.27
952872	J757 E	23.11
953241	J467 C	1.27
953242	J467 E	6.86
953401	J811	7.81
953651	J815	27.31
953741	J826 C	1.67
953742	J826 E	9.04
953801	J835 C	2.81
953802	J835 E	15.22
953851	J845 C	1.63
953852	J845 E	8.82
953881	J848 C	4.2
953882	J848 E	22.73
954081	J872 C	3.22
954082	J872 E	17.41
954181	J884	12.39
954411	J912	10.31
954721	J750 C	2.57
954722	J750 E	13.9
954761	J468 C	2.65
954762	J468 E	10.62
CBM-N	CBM-N	0.39
CBM-S1	CBM-S1	7.75
CBM-S2	CBM-S2	2.33
CBM-W2	CBM-W2	89.56
CIN	CIN	7.74
CPLE	CPLE	0.81
DEARBORN	DEARBORN	0.59
G-007A	G-007A	1.33
IPL	IPL	4.21
LGEE	LGEE	1.16
MEC	MEC	6.75
NYISO	NYISO	1.7
O-066A	O-066A	0.62
VFT	VFT	3.56

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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
307538	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	117.66	117.99	DC	17.56

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

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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

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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

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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

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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
307521	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	118.87	119.34	DC	17.77

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

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

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

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

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
924834	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.41	132.78	DC	11.64

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

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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

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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

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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

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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
307892	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	104.54	107.29	DC	41.91

Bus #	Bus	MW Impact
274650	KINCAID ;1U	15.48
274651	KINCAID ;2U	15.51
274853	TWINGROVE;U1	2.3
274854	TWINGROVE;U2	2.3
274863	CAYUGA RI;1U	2.14
274864	CAYUGA RI;2U	2.14
900404	X3-028 C	78.36
905081	W4-005 C	2.19
917501	Z2-087 C	1.85
924041	AB2-047 C O1	14.84
924261	AB2-070 C O1	6.98
925771	AC1-053 C	6.83
926841	AC1-171 C O1	0.75
930461	AB1-087	28.73
930471	AB1-088	28.73
933441	AC2-157 C	3.97
935141	AD1-148	12.29
936771	AD2-100 C O1	25.48
937161	AD2-153 C O1	9.91
937171	AD2-154 C O1	9.91
937211	AD2-159 C	10.33
939401	AE1-172 C O1	24.59
939741	AE1-205 C O1	39.11
940101	AE1-252 C O1	41.91
950701	J196 C	1.11
951001	J339	12.11
951741	J474 C	4.81
952271	J644	12.24
952321	J734	10.17
952651	J756 C	4.36
952871	J757 C	5.2
953241	J467 C	1.73
953401	J811	10.29
953651	J815	34.83
953741	J826 C	3.01
953801	J835 C	3.42
953851	J845 C	2.96
953881	J848 C	5.38
954081	J872 C	4.15
954181	J884	24.98

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Bus #	Bus	MW Impact
954411	J912	13.29
954721	J750 C	3.3
954761	J468 C	3.94
AD2-098	AD2-098	0.45
AE1-042	AE1-042	5.79
CBM-N	CBM-N	0.66
CBM-S1	CBM-S1	9.87
CBM-S2	CBM-S2	3.13
CBM-W2	CBM-W2	111.77
CIN	CIN	10.82
CPLE	CPLE	1.12
DEARBORN	DEARBORN	0.52
EDWARDS	EDWARDS	0.05
G-007A	G-007A	2.18
IPL	IPL	5.9
LGEE	LGEE	1.65
MEC	MEC	2.66
NYISO	NYISO	2.85
O-066A	O-066A	1.01
TATANKA	TATANKA	0.42
VFT	VFT	5.85

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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
307370	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.68	137.11	DC	12.72

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.02
274654	BRAIDWOOD;1U	19.04
274655	BRAIDWOOD;2U	18.23
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.87
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.87
274722	S-055 E	8.44
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274832	U4-027	7.92
274859	EASYR;U1 E	8.15
274860	EASYR;U2 E	8.15
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.75
274891	CAYUG;2U E	9.75
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.76
290108	LEEDK;1U E	18.03
293061	N-015 E	11.58
293516	O-009 E1	6.68
293517	O-009 E2	3.39
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.22
293716	O-029 E	3.96
293717	O-029 E	3.64
293771	O-035 E	3.58
294392	P-010 E	14.71
294763	P-046 E	6.96
295109	WESTBROOK E	4.15
295111	SUBLETTE E	1.92
910542	X3-005 E	0.45

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Bus #	Bus	MW Impact
914641	Y2-103	33.74
915011	Y3-013 1	2.81
915021	Y3-013 2	2.81
915031	Y3-013 3	2.81
916211	Z1-072 E	3.54
916221	Z1-073 E	4.0
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	13.02
919581	AA2-030	13.02
920272	AA2-123 E	1.82
924471	AB2-096	31.56
925161	AB2-173	2.32
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	0.84
926822	AC1-168 E O1	5.67
927091	AC1-204 1	55.21
927101	AC1-204 2	55.14
927201	AC1-214 C O1	1.5
927202	AC1-214 E O1	4.77
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	48.94
930501	AB1-091 O1	50.6
930741	AB1-122 1O1	53.06
930751	AB1-122 2O1	56.3
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77

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Bus #	Bus	MW Impact
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.05
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.18
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.2
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.18
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	5.1
934702	AD1-098 E O1	3.73
934721	AD1-100 C	14.28
934722	AD1-100 E	66.63
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.98
934882	AD1-117 E	2.65
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.18
935002	AD1-133 E O1	10.12
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	16.74
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	8.94
936792	AD2-102 E	8.59
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.37
937031	AD2-137 C O1	2.45
937032	AD2-137 E O1	11.47
937051	AD2-140 C O1	2.45
937052	AD2-140 E O1	11.47
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.48
937071	AD2-142 C O1	4.9

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Bus #	Bus	MW Impact
937072	AD2-142 E O1	22.93
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
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	2.52
937321	AD2-175 C	11.32
937322	AD2-175 E	7.54
937331	AD2-176 C O1	5.47
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	3.25
937532	AD2-214 E	1.53
938012	AE1-002 E O1	4.92
938511	AE1-070 1	6.98
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	10.2
939051	AE1-134 1	1.01
939061	AE1-134 2	1.01
939321	AE1-163 C O1	4.3
939322	AE1-163 E O1	26.42
939351	AE1-166 C O1	7.6
939352	AE1-166 E O1	7.02
939401	AE1-172 C O1	4.48
939402	AE1-172 E O1	20.97
939641	AE1-194 C	18.96
939642	AE1-194 E	126.87
939651	AE1-195 C	18.96
939652	AE1-195 E	126.87
939691	AE1-199	1.77
939701	AE1-201 C	1.49
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.6
939871	AE1-222 2	62.17
939921	AE1-228 C O1	7.46
939922	AE1-228 E O1	4.97
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.14
940101	AE1-252 C O1	7.63
940102	AE1-252 E O1	5.09
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.44

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Bus #	Bus	MW Impact
BLUEG	BLUEG	5.04
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.0
CBM-W2	CBM-W2	37.11
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.13
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.54
O-066	O-066	5.29
RENSSELAER	RENSSELAER	0.44
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.96
Z1-043	Z1-043	20.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
307228	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	170.0	170.32	DC	27.04

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

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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

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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

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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

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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
307230	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.75	170.23	DC	27.58

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

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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

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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

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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

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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
307263	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	162.91	163.42	DC	17.59

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	12.64
274654	BRAIDWOOD;1U	27.1
274655	BRAIDWOOD;2U	25.93
274661	LASCO STA;2U	24.8
274687	WILL CNTY;4U	11.3
274704	KENDALL ;1C	3.98
274705	KENDALL ;1S	2.65
274706	KENDALL ;2C	3.98
274707	KENDALL ;2S	2.65
274722	S-055 E	11.83
274751	CRETE EC ;1U	5.76
274752	CRETE EC ;2U	5.76
274753	CRETE EC ;3U	5.76
274754	CRETE EC ;4U	5.76
274859	EASYR;U1 E	11.42
274860	EASYR;U2 E	11.42
274861	TOP CROP ;1U	0.47
274862	TOP CROP ;2U	0.91
274888	PILOT HIL;1E	16.99
274890	CAYUG;1U E	13.49
274891	CAYUG;2U E	13.49
275149	KEMPTON ;1E	16.99
290021	O50 E	20.63
290051	GSG-6; E	10.86
290108	LEEDK;1U E	25.25
293061	N-015 E	16.33
293516	O-009 E1	9.36
293517	O-009 E2	4.75
293518	O-009 E3	5.24
293644	O22 E1	12.27
293645	O22 E2	23.81
293715	O-029 E	10.12
293716	O-029 E	5.55
293717	O-029 E	5.1
294392	P-010 E	20.74
294763	P-046 E	9.76
295109	WESTBROOK E	5.81
295111	SUBLETTE E	2.69
914641	Y2-103	47.33
915011	Y3-013 1	3.94
915021	Y3-013 2	3.94

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Bus #	Bus	MW Impact
915031	Y3-013 3	3.94
916221	Z1-073 E	5.6
916502	Z1-106 E1	1.32
916504	Z1-106 E2	1.32
916512	Z1-107 E	2.53
916522	Z1-108 E	2.6
918052	AA1-018 E	16.07
919221	AA1-146	18.24
919581	AA2-030	18.24
920272	AA2-123 E	2.55
924471	AB2-096	44.23
925161	AB2-173	3.25
925302	AB2-191 E	1.44
926311	AC1-109 1	1.99
926321	AC1-109 2	1.99
926331	AC1-110 1	1.99
926341	AC1-110 2	1.99
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	2.48
926821	AC1-168 C O1	1.18
926822	AC1-168 E O1	7.95
927091	AC1-204 1	77.85
927101	AC1-204 2	77.71
927451	AC1-142A 1	4.51
927461	AC1-142A 2	4.51
927511	AC1-113 1	1.24
927521	AC1-113 2	1.24
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	68.58
930501	AB1-091 O1	66.92
930741	AB1-122 1O1	74.18
930751	AB1-122 2O1	79.37
932881	AC2-115 1	2.48
932891	AC2-115 2	2.48
932921	AC2-116	0.87
933341	AC2-147 C	0.91
933342	AC2-147 E	1.48
933411	AC2-154 C	2.31
933412	AC2-154 E	3.76
933431	AC2-156 C O1	0.99

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Bus #	Bus	MW Impact
933432	AC2-156 E O1	1.62
933911	AD1-013 C	1.91
933912	AD1-013 E	3.05
933931	AD1-016 C	0.97
933932	AD1-016 E	1.58
934101	AD1-039 1	7.27
934111	AD1-039 2	7.78
934401	AD1-064 C O1	3.35
934402	AD1-064 E O1	15.66
934431	AD1-067 C	0.14
934432	AD1-067 E	0.57
934651	AD1-096 C	0.93
934652	AD1-096 E	1.51
934701	AD1-098 C O1	7.15
934702	AD1-098 E O1	5.22
934721	AD1-100 C	19.8
934722	AD1-100 E	92.39
934871	AD1-116 C	0.94
934872	AD1-116 E	1.53
934881	AD1-117 C	5.58
934882	AD1-117 E	3.72
934971	AD1-129 C	0.94
934972	AD1-129 E	0.63
935001	AD1-133 C O1	21.14
935002	AD1-133 E O1	14.09
936291	AD2-038 C O1	2.39
936292	AD2-038 E O1	15.96
936371	AD2-047 C O1	2.06
936372	AD2-047 E O1	22.2
936461	AD2-060	2.43
936511	AD2-066 C O1	8.65
936512	AD2-066 E O1	5.76
936781	AD2-101 C	3.94
936782	AD2-101 E	18.44
936791	AD2-102 C	12.53
936792	AD2-102 E	12.04
936961	AD2-130	0.59
937001	AD2-134 C	2.84
937002	AD2-134 E	11.73
937031	AD2-137 C O1	3.31
937032	AD2-137 E O1	15.49
937051	AD2-140 C O1	3.29
937052	AD2-140 E O1	15.42
937061	AD2-141 C O1	3.27
937062	AD2-141 E O1	15.43
937071	AD2-142 C O1	6.59
937072	AD2-142 E O1	30.83
937121	AD2-148 C O1	3.21
937122	AD2-148 E O1	15.04
937131	AD2-149 C O1	3.21
937132	AD2-149 E O1	15.04
937141	AD2-150 C O1	3.21

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Bus #	Bus	MW Impact
937142	AD2-150 E O1	15.04
937181	AD2-155 C O1	3.21
937182	AD2-155 E O1	15.04
937311	AD2-172 C	2.56
937312	AD2-172 E	3.54
937321	AD2-175 C	14.97
937322	AD2-175 E	9.98
937331	AD2-176 C O1	7.66
937332	AD2-176 E O1	5.11
937401	AD2-194 1	8.37
937411	AD2-194 2	8.36
937531	AD2-214 C	1.12
937532	AD2-214 E	0.53
938012	AE1-002 E O1	6.64
938511	AE1-070 1	9.84
938521	AE1-070 2	8.98
938851	AE1-113 C O1	9.34
938852	AE1-113 E O1	29.35
938861	AE1-114 C O1	3.74
938862	AE1-114 E O1	14.29
939051	AE1-134 1	1.42
939061	AE1-134 2	1.42
939321	AE1-163 C O1	5.99
939322	AE1-163 E O1	36.82
939351	AE1-166 C O1	10.59
939352	AE1-166 E O1	9.78
939401	AE1-172 C O1	6.19
939402	AE1-172 E O1	28.98
939641	AE1-194 C	32.45
939642	AE1-194 E	217.15
939651	AE1-195 C	32.45
939652	AE1-195 E	217.15
939691	AE1-199	2.48
939701	AE1-201 C	2.1
939702	AE1-201 E	0.46
939732	AE1-204 E	0.31
939861	AE1-222 1	81.92
939871	AE1-222 2	87.66
939921	AE1-228 C O1	10.44
939922	AE1-228 E O1	6.96
939961	AE1-233 C O1	2.42
939962	AE1-233 E O1	10.0
940101	AE1-252 C O1	10.55
940102	AE1-252 E O1	7.03
AB2-013	AB2-013	16.66
AE1-033	AE1-033	18.83
BLUEG	BLUEG	7.46
CALDERWOOD	CALDERWOOD	0.15
CANNELTON	CANNELTON	0.18
CARR	CARR	0.8
CATAWBA	CATAWBA	0.34
CBM-S1	CBM-S1	0.87

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Bus #	Bus	MW Impact
CBM-W1	CBM-W1	25.94
CBM-W2	CBM-W2	50.2
CHEOAH	CHEOAH	0.15
CHILHOWEE	CHILHOWEE	0.05
DEARBORN	DEARBORN	3.06
ELMERSMITH	ELMERSMITH	0.24
G-007	G-007	2.23
GIBSON	GIBSON	0.11
HAMLET	HAMLET	1.27
MEC	MEC	38.47
O-066	O-066	7.52
RENSSELAER	RENSSELAER	0.63
SANTEETLA	SANTEETLA	0.05
TRIMBLE	TRIMBLE	0.87
WEC	WEC	8.36
Z1-043	Z1-043	29.36

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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
924703	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	143.81	144.29	DC	13.94

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

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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

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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

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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

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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
307227	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	170.0	170.32	DC	27.04

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

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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

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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

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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

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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
307232	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.75	170.23	DC	27.58

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

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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

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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

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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

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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
307390	905080	W4-005 TAP	CE	270668	BLUEMOUND; B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1334.0	118.0	119.23	DC	16.52

Bus #	Bus	MW Impact
274650	KINCAID ;1U	12.79
274651	KINCAID ;2U	12.83
276150	W2-048 E	2.0
905081	W4-005 C	2.59
905082	W4-005 E	112.94
909052	X2-022 E	27.82
917501	Z2-087 C	0.59
917502	Z2-087 E	25.78
924041	AB2-047 C O1	4.82
924042	AB2-047 E O1	32.23
924261	AB2-070 C O1	3.86
924262	AB2-070 E O1	25.81
925771	AC1-053 C	3.86
925772	AC1-053 E	25.81
935141	AD1-148	7.27
936771	AD2-100 C O1	22.55
936772	AD2-100 E O1	15.03
936972	AD2-131 E O1	8.95
937161	AD2-153 C O1	3.91
937162	AD2-153 E O1	18.32
937171	AD2-154 C O1	3.91
937172	AD2-154 E O1	18.32
937211	AD2-159 C	12.2
937212	AD2-159 E	57.14
938012	AE1-002 E O1	4.52
940103	AE1-252 EBAT	16.52
950291	J291	3.09
950701	J196 C	0.68
950702	J196 E	2.74
951001	J339	6.46
951741	J474 C	3.02
951742	J474 E	16.32
952251	J641	9.84
952271	J644	9.95
952321	J734	5.43
952651	J756 C	3.6
952652	J756 E	19.46
952871	J757 C	4.27
952872	J757 E	23.11
953241	J467 C	1.27

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Bus #	Bus	MW Impact
953242	J467 E	6.86
953401	J811	7.81
953651	J815	27.31
953741	J826 C	1.67
953742	J826 E	9.04
953801	J835 C	2.81
953802	J835 E	15.22
953851	J845 C	1.63
953852	J845 E	8.82
953881	J848 C	4.2
953882	J848 E	22.73
954081	J872 C	3.22
954082	J872 E	17.41
954181	J884	12.39
954411	J912	10.31
954681	J949	12.2
954721	J750 C	2.57
954722	J750 E	13.9
954761	J468 C	2.65
954762	J468 E	10.62
CBM-N	CBM-N	0.43
CBM-S1	CBM-S1	7.89
CBM-S2	CBM-S2	2.4
CBM-W2	CBM-W2	90.57
CIN	CIN	7.85
CPLE	CPLE	0.84
DEARBORN	DEARBORN	0.55
G-007A	G-007A	1.43
IPL	IPL	4.28
LGEE	LGEE	1.19
MEC	MEC	6.95
NYISO	NYISO	1.85
O-066A	O-066A	0.67
VFT	VFT	3.84

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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
308566	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	144.96	147.31	DC	43.36

Bus #	Bus	MW Impact
274654	BRAIDWOOD;1U	33.0
274655	BRAIDWOOD;2U	31.46
274660	LASCO STA;1U	20.77
274661	LASCO STA;2U	20.81
274847	GR RIDGE ;BU	0.46
274853	TWINGROVE;U1	0.88
274854	TWINGROVE;U2	0.88
274863	CAYUGA RI;1U	1.14
274864	CAYUGA RI;2U	1.14
274871	GR RIDGE ;2U	0.59
274881	PLEAS RDG;2U	0.94
274887	PILOT HIL;1U	0.94
274888	PILOT HIL;1E	24.62
274890	CAYUG;1U E	29.8
274891	CAYUG;2U E	29.8
275149	KEMPTON ;1E	24.62
276150	W2-048 E	1.36
290261	S-027 E	23.06
290265	S-028 E	23.06
293061	N-015 E	12.12
294392	P-010 E	15.39
296125	R-030 C3	5.9
296128	R-030 E3	23.58
296271	R-030 C2	5.83
296272	R-030 E2	23.3
296308	R-030 C1	5.83
296309	R-030 E1	23.3
905081	W4-005 C	0.86
905082	W4-005 E	37.37
909052	X2-022 E	18.92
917501	Z2-087 C	0.7
917502	Z2-087 E	30.46
924041	AB2-047 C O1	5.59
924042	AB2-047 E O1	37.43
924261	AB2-070 C O1	2.78
924262	AB2-070 E O1	18.6
925771	AC1-053 C	2.73
925772	AC1-053 E	18.26
925881	AC1-067 O1	219.35
926821	AC1-168 C O1	0.64

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Bus #	Bus	MW Impact
926822	AC1-168 E O1	4.29
930501	AB1-091 O1	110.96
933411	AC2-154 C	3.34
933412	AC2-154 E	5.45
934721	AD1-100 C	48.31
934722	AD1-100 E	225.47
935001	AD1-133 C O1	18.1
935002	AD1-133 E O1	12.07
935141	AD1-148	4.94
936371	AD2-047 C O1	2.99
936372	AD2-047 E O1	32.19
936461	AD2-060	3.52
936771	AD2-100 C O1	10.55
936772	AD2-100 E O1	7.04
936781	AD2-101 C	7.11
936782	AD2-101 E	33.27
936972	AD2-131 E O1	2.22
937121	AD2-148 C O1	5.34
937122	AD2-148 E O1	25.01
937131	AD2-149 C O1	5.34
937132	AD2-149 E O1	25.01
937141	AD2-150 C O1	5.34
937142	AD2-150 E O1	25.01
937161	AD2-153 C O1	3.8
937162	AD2-153 E O1	17.78
937171	AD2-154 C O1	3.8
937172	AD2-154 E O1	17.78
937181	AD2-155 C O1	5.34
937182	AD2-155 E O1	25.01
937211	AD2-159 C	4.04
937212	AD2-159 E	18.9
937321	AD2-175 C	24.89
937322	AD2-175 E	16.59
938012	AE1-002 E O1	29.83
939351	AE1-166 C O1	20.52
939352	AE1-166 E O1	18.94
939401	AE1-172 C O1	15.26
939402	AE1-172 E O1	71.45
939741	AE1-205 C O1	14.83
939742	AE1-205 E O1	20.48
940101	AE1-252 C O1	26.01
940102	AE1-252 E O1	17.34
951741	J474 C	1.71
951742	J474 E	9.28
953741	J826 C	1.0
953742	J826 E	5.4
954181	J884	8.88
AB2-013	AB2-013	5.61
BLUEG	BLUEG	0.01
CARR	CARR	0.27
CBM-S1	CBM-S1	2.75
CBM-S2	CBM-S2	0.06

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Bus #	Bus	MW Impact
CBM-W1	CBM-W1	5.33
CBM-W2	CBM-W2	48.81
CIN	CIN	2.54
DEARBORN	DEARBORN	1.27
G-007	G-007	0.73
HAMLET	HAMLET	0.06
IPL	IPL	1.1
LGEE	LGEE	0.03
MEC	MEC	13.64
O-066	O-066	2.47
RENSSELAER	RENSSELAER	0.21
TRIMBLE	TRIMBLE	0.04
WEC	WEC	1.22
Z1-043	Z1-043	14.81

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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
307866	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	112.28	115.03	DC	41.91

Bus #	Bus	MW Impact
274650	KINCAID ;1U	15.48
274651	KINCAID ;2U	15.51
274853	TWINGROVE;U1	2.3
274854	TWINGROVE;U2	2.3
274863	CAYUGA RI;1U	2.14
274864	CAYUGA RI;2U	2.14
900404	X3-028 C	78.36
905081	W4-005 C	2.19
917501	Z2-087 C	1.85
924041	AB2-047 C O1	14.84
924261	AB2-070 C O1	6.98
925771	AC1-053 C	6.83
926841	AC1-171 C O1	0.75
930461	AB1-087	28.73
930471	AB1-088	28.73
933441	AC2-157 C	3.97
935001	AD1-133 C O1	120.38
935141	AD1-148	12.29
936771	AD2-100 C O1	25.48
937161	AD2-153 C O1	9.91
937171	AD2-154 C O1	9.91
937211	AD2-159 C	10.33
939401	AE1-172 C O1	24.59
939741	AE1-205 C O1	39.11
940101	AE1-252 C O1	41.91
950701	J196 C	1.11
951001	J339	12.11
951741	J474 C	4.81
952271	J644	12.24
952321	J734	10.17
952651	J756 C	4.36
952871	J757 C	5.2
953241	J467 C	1.73
953401	J811	10.29
953651	J815	34.83
953741	J826 C	3.01
953801	J835 C	3.42
953851	J845 C	2.96
953881	J848 C	5.38
954081	J872 C	4.15

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Bus #	Bus	MW Impact
954181	J884	24.98
954411	J912	13.29
954721	J750 C	3.3
954761	J468 C	3.94
AD2-098	AD2-098	0.45
AE1-042	AE1-042	5.79
CBM-N	CBM-N	0.66
CBM-S1	CBM-S1	9.87
CBM-S2	CBM-S2	3.13
CBM-W2	CBM-W2	111.77
CIN	CIN	10.82
CPLE	CPLE	1.12
DEARBORN	DEARBORN	0.52
EDWARDS	EDWARDS	0.05
G-007A	G-007A	2.18
IPL	IPL	5.9
LGEE	LGEE	1.65
MEC	MEC	2.66
NYISO	NYISO	2.85
O-066A	O-066A	1.01
TATANKA	TATANKA	0.42
VFT	VFT	5.85

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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
308540	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	152.15	154.5	DC	43.36

Bus #	Bus	MW Impact
274654	BRAIDWOOD;1U	33.0
274655	BRAIDWOOD;2U	31.46
274660	LASCO STA;1U	20.77
274661	LASCO STA;2U	20.81
274847	GR RIDGE ;BU	0.46
274853	TWINGROVE;U1	0.88
274854	TWINGROVE;U2	0.88
274863	CAYUGA RI;1U	1.14
274864	CAYUGA RI;2U	1.14
274871	GR RIDGE ;2U	0.59
274881	PLEAS RDG;2U	0.94
274887	PILOT HIL;1U	0.94
274888	PILOT HIL;1E	24.62
274890	CAYUG;1U E	29.8
274891	CAYUG;2U E	29.8
275149	KEMPTON ;1E	24.62
276150	W2-048 E	1.36
290261	S-027 E	23.06
290265	S-028 E	23.06
293061	N-015 E	12.12
294392	P-010 E	15.39
296125	R-030 C3	5.9
296128	R-030 E3	23.58
296271	R-030 C2	5.83
296272	R-030 E2	23.3
296308	R-030 C1	5.83
296309	R-030 E1	23.3
905081	W4-005 C	0.86
905082	W4-005 E	37.37
909052	X2-022 E	18.92
917501	Z2-087 C	0.7
917502	Z2-087 E	30.46
924041	AB2-047 C O1	5.59
924042	AB2-047 E O1	37.43
924261	AB2-070 C O1	2.78
924262	AB2-070 E O1	18.6
925771	AC1-053 C	2.73
925772	AC1-053 E	18.26
925881	AC1-067 O1	219.35
930501	AB1-091 O1	110.96

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Bus #	Bus	MW Impact
933411	AC2-154 C	3.34
933412	AC2-154 E	5.45
934721	AD1-100 C	48.31
934722	AD1-100 E	225.47
935001	AD1-133 C O1	18.1
935002	AD1-133 E O1	12.07
935141	AD1-148	4.94
936371	AD2-047 C O1	2.99
936372	AD2-047 E O1	32.19
936461	AD2-060	3.52
936771	AD2-100 C O1	10.55
936772	AD2-100 E O1	7.04
936781	AD2-101 C	7.11
936782	AD2-101 E	33.27
936972	AD2-131 E O1	2.22
937031	AD2-137 C O1	18.53
937032	AD2-137 E O1	86.74
937121	AD2-148 C O1	5.34
937122	AD2-148 E O1	25.01
937131	AD2-149 C O1	5.34
937132	AD2-149 E O1	25.01
937141	AD2-150 C O1	5.34
937142	AD2-150 E O1	25.01
937161	AD2-153 C O1	3.8
937162	AD2-153 E O1	17.78
937171	AD2-154 C O1	3.8
937172	AD2-154 E O1	17.78
937181	AD2-155 C O1	5.34
937182	AD2-155 E O1	25.01
937211	AD2-159 C	4.04
937212	AD2-159 E	18.9
937321	AD2-175 C	24.89
937322	AD2-175 E	16.59
938012	AE1-002 E O1	70.17
939351	AE1-166 C O1	20.52
939352	AE1-166 E O1	18.94
939401	AE1-172 C O1	15.26
939402	AE1-172 E O1	71.45
939741	AE1-205 C O1	14.83
939742	AE1-205 E O1	20.48
940101	AE1-252 C O1	26.01
940102	AE1-252 E O1	17.34
951741	J474 C	1.71
951742	J474 E	9.28
954181	J884	8.88
AB2-013	AB2-013	5.61
BLUEG	BLUEG	0.01
CARR	CARR	0.27
CBM-S1	CBM-S1	2.75
CBM-S2	CBM-S2	0.06
CBM-W1	CBM-W1	5.33
CBM-W2	CBM-W2	48.81

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Bus #	Bus	MW Impact
CIN	CIN	2.54
DEARBORN	DEARBORN	1.27
G-007	G-007	0.73
HAMLET	HAMLET	0.06
IPL	IPL	1.1
LGEE	LGEE	0.03
MEC	MEC	13.64
O-066	O-066	2.47
RENSSELAER	RENSSELAER	0.21
TRIMBLE	TRIMBLE	0.04
WEC	WEC	1.22
Z1-043	Z1-043	14.81

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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
307823	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	single	1528.0	118.5	122.46	DC	60.51

Bus #	Bus	MW Impact
274650	KINCAID ;1U	17.25
274651	KINCAID ;2U	17.28
274853	TWINGROVE;U1	2.5
274854	TWINGROVE;U2	2.5
274863	CAYUGA RI;1U	2.82
274864	CAYUGA RI;2U	2.82
900404	X3-028 C	84.69
905081	W4-005 C	2.39
917501	Z2-087 C	2.01
924041	AB2-047 C O1	16.06
924261	AB2-070 C O1	7.65
925771	AC1-053 C	7.49
926841	AC1-171 C O1	0.96
930461	AB1-087	31.05
930471	AB1-088	31.05
933441	AC2-157 C	4.29
935001	AD1-133 C O1	90.83
935141	AD1-148	13.51
936771	AD2-100 C O1	28.25
937161	AD2-153 C O1	10.77
937171	AD2-154 C O1	10.77
937211	AD2-159 C	11.3
939401	AE1-172 C O1	35.5
939741	AE1-205 C O1	42.48
940101	AE1-252 C O1	60.51
950701	J196 C	1.14
951001	J339	12.81
951741	J474 C	5.17
952271	J644	13.59
952321	J734	10.76
952651	J756 C	4.83
952871	J757 C	5.78
953241	J467 C	1.82
953401	J811	10.88
953651	J815	37.45
953741	J826 C	3.19
953801	J835 C	3.81
953851	J845 C	3.12
953881	J848 C	5.76
954081	J872 C	4.43

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Bus #	Bus	MW Impact
954181	J884	26.75
954411	J912	14.21
954721	J750 C	3.62
AD2-098	AD2-098	0.36
AE1-042	AE1-042	6.61
CBM-N	CBM-N	0.57
CBM-S1	CBM-S1	11.07
CBM-S2	CBM-S2	3.34
CBM-W2	CBM-W2	129.48
CIN	CIN	11.59
CPLE	CPLE	1.17
DEARBORN	DEARBORN	0.85
G-007A	G-007A	1.93
IPL	IPL	6.27
LGEE	LGEE	1.7
MEC	MEC	9.12
NYISO	NYISO	2.48
O-066A	O-066A	0.9
VFT	VFT	5.19

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Affected Systems

MISO

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

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Contingency Name	Contingency Definition
COMED_P4_080-45-BT7-8_FSA	CONTINGENCY 'COMED_P4_080-45-BT7-8_FSA' TRIP BRANCH FROM BUS 270853 TO BUS 917500 CKT 1 / PONTIAC ; R 345 Z2-087 TAP 345 TRIP BRANCH FROM BUS 270853 TO BUS 935000 CKT 1 / PONTIAC ; R 345 AD1-133 TAP 345 /* CONTINGENCY LINE ADDED FOR AE1 BUILD END
COMED_P1-2_345-L11212_B-S-A	CONTINGENCY 'COMED_P1-2_345-L11212_B-S-A' TRIP BRANCH FROM BUS 270926 TO BUS 937030 CKT 1 / WILTO; B 345 AD2-137 TAP 345 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_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_P1-2_345-L8002___-S	CONTINGENCY 'COMED_P1-2_345-L8002___-S' TRIP BRANCH FROM BUS 270852 TO BUS 270668 CKT 1 / PONTI; B 345 BLUEM; B 345 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_P1-2_345-L11212_B-S-C-A	CONTINGENCY 'COMED_P1-2_345-L11212_B-S-C-A' TRIP BRANCH FROM BUS 934720 TO BUS 939400 CKT 1 / AD1-100 TAP 345 AE1-172 TAP 345 END
COMED_P7_345-L2001__B-S_+_345-L2003__R-S	CONTINGENCY 'COMED_P7_345-L2001__B-S_+_345-L2003__R-S' TRIP BRANCH FROM BUS 270670 TO BUS 270728 CKT 1 / BRAID; B 345 E FRA; B 345 TRIP BRANCH FROM BUS 270728 TO BUS 270766 CKT 1 / E FRA; B 345 GOODI;3B 345 TRIP BRANCH FROM BUS 270728 TO BUS 274750 CKT 1 / E FRA; B 345 CRETE;BP 345 TRIP BRANCH FROM BUS 270671 TO BUS 270729 CKT 1 / BRAID; R 345 E FRA; R 345 END
COMED_P1-2_345-L8014___-S-A	CONTINGENCY 'COMED_P1-2_345-L8014___-S-A' TRIP BRANCH FROM BUS 270853 TO BUS 935000 CKT 1 / PONTIAC ; R 345 AD1-133 TAP 345 END

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Contingency Name	Contingency Definition
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_P1-2_345-L8014___-S-B	CONTINGENCY 'COMED_P1-2_345-L8014___-S-B' TRIP BRANCH FROM BUS 935000 TO BUS 270717 CKT 1 / AD1-133 TAP 345 DRESDEN ; R 345 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_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
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_P7_345-L17704AR-S_+_345-L17907TB-S-A	CONTINGENCY 'COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A' TRIP BRANCH FROM BUS 270675 TO BUS 925880 CKT 1 / BURNHAM ;1R 345 AC1-067 TAP 345 TRIP BRANCH FROM BUS 270662 TO BUS 936780 CKT 1 / BLOOM ; B 345 AD2-101 TAP 345 TRIP BRANCH FROM BUS 270662 TO BUS 271098 TO BUS 275258 CKT 1 / BLOOM ; B 345 BLOOM ; B 138 BLOOM ;4C 34.5 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
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

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Contingency Name	Contingency Definition
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
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
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_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

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Short Circuit

No issues identified.

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Secondary Point of Interconnection

AE1-252 will interconnect with the ComEd transmission system at the Loretto; B 345 kV substation.

The Queue Project AE1-252 was evaluated as a 150 MW (Capacity 90 MW) injection at the Loretto; B 345 kV substation in the ComEd area. Project AE1-252 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-252 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
636405	243219	05DUMONT	AEP	255113	17STILLWELL	NIPS	1	COMED_P4_023-65-BT4-5__	breaker	1409.0	99.76	100.36	DC	10.03
303519	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	101.88	102.18	DC	42.02
636370	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P4_#8805_05OLIVE 345_D	breaker	4105.0	101.88	102.18	DC	42.02
303424	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1334.0	101.75	103.21	DC	19.53

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
303411	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	117.87	118.18	DC	11.15
303251	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	137.26	137.67	DC	12.13

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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
303252	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	137.24	137.62	DC	12.18
303253	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	136.73	137.14	DC	12.19
303254	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.73	137.14	DC	12.19
635742	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	182.75	183.1	DC	19.7
304616	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	110.78	111.05	DC	45.08
304617	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	108.73	109.01	DC	45.15
637595	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	110.78	111.05	DC	45.08
637596	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L6607__B-S_+_345-L97008_R-S	tower	4105.0	108.73	109.01	DC	45.15
303278	270668	BLUEMOUND; B	CE	270852	PONTIAC ; B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1528.0	119.79	121.07	DC	19.58
303416	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	117.57	117.9	DC	16.75
303749	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	single	1528.0	116.69	120.31	DC	55.08
303750	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	COMED_P1-2_345-L8014___-S-A	single	1528.0	111.71	115.33	DC	55.08
303395	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	118.93	119.39	DC	17.05
303396	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	118.45	118.89	DC	17.07
303397	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	118.36	118.81	DC	17.1
303398	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	118.36	118.8	DC	17.1
303293	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.42	132.77	DC	11.15
636006	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.42	132.77	DC	11.15
303325	270796	KINCAID ; B	CE	347955	7AUSTIN	AMIL	1	COMED_P4_080-45-BT7-8_FSA	breaker	956.0	126.99	127.48	DC	10.47
303421	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_080-45-BT8-13_FSA	breaker	1334.0	116.75	117.81	DC	14.13
303422	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_BRO-45-BT2-3_FSA	breaker	1334.0	107.36	108.42	DC	14.12
303423	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_BRO-45-BT3-4_FSA	breaker	1334.0	106.97	108.03	DC	14.09
303782	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	104.49	107.24	DC	41.91
303783	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-B	single	1528.0	103.15	105.9	DC	41.91
303246	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	137.26	137.67	DC	12.13
303247	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1091.0	137.24	137.62	DC	12.18
303248	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1091.0	136.72	137.13	DC	12.19
303249	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.72	137.13	DC	12.19
303111	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	169.93	170.23	DC	25.32
303114	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.69	170.14	DC	25.82
303139	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	163.53	164.02	DC	16.81

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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
303140	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_023-65-BT2-3__	breaker	1399.0	163.04	163.53	DC	16.83
303141	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT4-5__	breaker	1399.0	162.98	163.47	DC	16.86
303142	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1399.0	162.98	163.47	DC	16.86
303201	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	143.73	144.19	DC	13.37
303202	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	142.55	143.05	DC	13.43
303203	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	142.57	143.03	DC	13.44
303204	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	142.57	143.03	DC	13.44
303205	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	142.57	143.03	DC	13.44
635875	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	143.73	144.19	DC	13.37
635876	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT2-3__	breaker	971.0	142.55	143.05	DC	13.43
635877	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT4-5__	breaker	971.0	142.57	143.03	DC	13.44
635878	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_112-65-BT3-4__	breaker	971.0	142.57	143.03	DC	13.44
635879	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	COMED_P4_023-65-BT4-5__	breaker	971.0	142.57	143.03	DC	13.44
303113	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	169.93	170.23	DC	25.32
303116	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.69	170.14	DC	25.82
303256	905080	W4-005 TAP	CE	270668	BLUEMOUND;B	CE	1	COMED_P4_080-45-BT8-13_FSA	breaker	1334.0	136.04	137.1	DC	14.15
303257	905080	W4-005 TAP	CE	270668	BLUEMOUND;B	CE	1	COMED_P4_BRO-45-BT2-3_FSA	breaker	1334.0	126.08	127.13	DC	14.14
303258	905080	W4-005 TAP	CE	270668	BLUEMOUND;B	CE	1	COMED_P4_BRO-45-BT3-4_FSA	breaker	1334.0	125.78	126.83	DC	14.11
303259	905080	W4-005 TAP	CE	270668	BLUEMOUND;B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1334.0	120.22	121.68	DC	19.55
304457	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	144.91	146.93	DC	37.25
304458	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P7_345-L2001__B-S_+_345-L2003__R-S	tower	1846.0	142.38	144.48	DC	38.79
303756	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	112.23	114.98	DC	41.91
303757	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-B	single	1528.0	110.64	113.39	DC	41.91
304426	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	152.1	154.12	DC	37.25
304427	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P7_345-L2001__B-S_+_345-L2003__R-S	tower	1846.0	149.92	152.02	DC	38.79
303713	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	single	1528.0	118.43	122.04	DC	55.08
303714	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-A	single	1528.0	113.1	116.72	DC	55.08

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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
637251	243219	05DUMONT	AEP	255113	17STILLWELL	NIPS	1	AEP_P1-2_#695A	operation	1409.0	99.75	100.35	DC	10.02
304123	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P1-2_#695A	operation	1091.0	116.76	117.08	DC	11.24
303956	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	AEP_P1-2_#695A	operation	1091.0	136.72	137.13	DC	12.19
636566	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P1-2_#695A	operation	1409.0	179.61	179.97	DC	20.05
304202	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	109.42	109.66	DC	39.22
304203	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	101.85	102.15	DC	42.03
637095	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	Base Case	operation	3555.0	109.42	109.66	DC	39.22
637096	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	AEP_P1-2_#697A	operation	4105.0	101.85	102.15	DC	42.03
304122	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P1-2_#695A	operation	1441.0	116.8	117.12	DC	16.82
303744	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	207.92	213.94	DC	91.8
303746	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	Base Case	operation	1364.0	155.2	160.68	DC	74.8
304105	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P1-2_#695A	operation	1399.0	118.32	118.77	DC	17.11
303995	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.17	131.53	DC	11.24
636811	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	131.17	131.53	DC	11.24
304032	270796	KINCAID ; B	CE	347955	7AUSTIN	AMIL	1	COMED_P1-2_345-L11212_B-S-C-A	operation	956.0	124.34	126.41	DC	19.87
303770	270852	PONTIAC ; B	CE	270704	LORETTO ; B	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	197.33	199.24	DC	29.07
303772	270852	PONTIAC ; B	CE	270704	LORETTO ; B	CE	1	Base Case	operation	1364.0	142.62	145.38	DC	37.58
303777	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-A	operation	1528.0	190.01	194.58	DC	69.84
303781	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	Base Case	operation	1334.0	128.17	130.4	DC	29.73
303960	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	AEP_P1-2_#695A	operation	1091.0	136.72	137.13	DC	12.19
304229	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P1-2_765-L11216__-S	operation	1379.0	106.68	106.86	DC	15.91

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
304201	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P1-2_765-L11216__-S	operation	1379.0	109.44	109.73	DC	16.63
303863	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P1-2_#695A	operation	1399.0	162.95	163.44	DC	16.87
303938	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	142.56	143.02	DC	13.44
636736	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P1-2_#695A	operation	971.0	142.56	143.02	DC	13.44
303928	348847	7BROKAW	AMIL	937160	AD2-153 TAP	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	142.46	143.69	DC	18.75
303932	348847	7BROKAW	AMIL	937160	AD2-153 TAP	CE	1	Base Case	operation	1334.0	110.52	111.58	DC	14.21
303785	917500	Z2-087 TAP	CE	270853	PONTIAC ; R	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	180.88	182.11	DC	18.76
303789	917500	Z2-087 TAP	CE	270853	PONTIAC ; R	CE	1	Base Case	operation	1334.0	151.12	152.18	DC	14.22
303800	924040	AB2-047 TAP	CE	917500	Z2-087 TAP	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	172.32	173.55	DC	18.75
303804	924040	AB2-047 TAP	CE	917500	Z2-087 TAP	CE	1	Base Case	operation	1334.0	141.96	143.02	DC	14.21
303858	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	161.46	164.22	DC	42.17
303862	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	Base Case	operation	1364.0	143.52	146.08	DC	34.92
304257	934730	AD1-100 TAP	CE	270670	BRAIDWOOD; B	CE	1	COMED_P1-2_345-L11212_B-S-A	operation	1528.0	99.63	102.71	DC	46.99
303751	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-A	operation	1528.0	203.0	207.58	DC	69.84
303754	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	Base Case	operation	1334.0	140.84	143.07	DC	29.73
303833	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	168.16	170.92	DC	42.17
303837	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	Base Case	operation	1364.0	153.41	155.97	DC	34.92
303882	937160	AD2-153 TAP	CE	924040	AB2-047 TAP	CE	1	COMED_P1-2_345-L8002___-S	operation	1528.0	152.75	153.99	DC	18.75
303886	937160	AD2-153 TAP	CE	924040	AB2-047 TAP	CE	1	Base Case	operation	1334.0	122.12	123.19	DC	14.21
303708	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	operation	1528.0	219.47	225.48	DC	91.8
303710	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	Base Case	operation	1364.0	167.27	172.75	DC	74.8

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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
636405	243219	05DUMONT	AEP	255113	17STILLWELL	NIPS	1	COMED_P4_023-65-BT4-5__	breaker	1409.0	99.76	100.36	DC	10.03

Bus #	Bus	MW Impact
916502	Z1-106 E1	1.49
916504	Z1-106 E2	1.49
916512	Z1-107 E	3.12
916522	Z1-108 E	2.94
920272	AA2-123 E	2.88
936972	AD2-131 E O1	2.17
938012	AE1-002 E O1	15.96
938671	AE1-089 C	9.68
938672	AE1-089 E	13.29
939683	AE1-198 BAT	11.12
939732	AE1-204 E	0.65
940103	AE1-252 EBAT	10.03
950031	J301 C	1.96
950032	J301 E	7.83
950041	J308 C	5.81
950042	J308 E	23.23
950121	J392	38.42
950161	J401	1.26
950241	J419	9.45
950302	J453 E	0.88
950311	G934 C	3.01
950312	G934 E	12.05
950351	J466	2.91
950361	J469	0.18
950791	J201 C	0.39
950792	J201 E	1.57
950871	J246 C	0.14
950872	J246 E	0.55
950942	J325 E	0.39
950951	J327 C	2.91
950952	J327 E	8.72
951011	J340 C	1.94
951012	J340 E	5.81
951051	J354 C	1.01
951052	J354 E	3.02
951531	J533 C	4.0
951532	J533 E	15.98
951571	J538 C	2.87
951572	J538 E	11.47
951581	J540	4.89
951731	J446 C	1.94

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Bus #	Bus	MW Impact
951732	J446 E	10.51
951941	J602 C	3.07
951942	J602 E	16.6
952161	J571	0.64
952201	J589 C	3.1
952202	J589 E	16.77
952312	J646 E	0.15
952401	J752 C	1.52
952402	J752 E	8.21
952471	J708	19.34
952611	J717 C	3.08
952612	J717 E	16.68
952761	J728 C	2.87
952762	J728 E	15.53
952811	J759	3.96
952821	J762	11.29
952861	J783 C	3.77
952862	J783 E	0.16
952881	J758	19.88
952941	J921 C	2.34
952942	J921 E	12.65
952961	J203 C	3.01
952962	J203 E	16.29
952971	J793	127.06
952981	J579 C	3.2
952982	J579 E	17.32
953071	J794 C	0.19
953072	J794 E	1.05
953101	J714 C	1.65
953102	J714 E	8.92
953161	J837 C	1.74
953162	J837 E	9.44
953171	J838 C	1.74
953172	J838 E	9.44
953271	J701 C	0.74
953272	J701 E	4.03
953291	J796	23.54
953321	J799	17.88
953351	J805	12.86
953361	J806	14.69
953381	J809	10.12
953421	J841	69.13
953501	J478 C	1.98
953502	J478 E	10.7
953541	J632 C	3.26
953542	J632 E	17.61
953751	J827	15.48
953771	J832	9.98
953781	J833	9.45
953811	J839	9.64
953831	J842 C	1.67
953832	J842 E	9.05

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Bus #	Bus	MW Impact
953841	J843 C	1.7
953842	J843 E	9.19
953861	J846	13.44
953931	J856	4.37
953941	J857	12.36
954011	J865	7.69
954111	J875	14.35
954231	J890 C	1.56
954232	J890 E	8.43
954351	J903	6.68
954381	J906 C	1.59
954382	J906 E	8.61
954421	J913	11.18
954431	J914	3.05
954541	J931 C	2.39
954542	J931 E	12.93
954581	J936	53.54
954591	J937	54.88
954711	J851 C	0.56
954712	J851 E	3.01
AC1-056	AC1-056	6.3
AD2-098	AD2-098	0.99
AE1-080A	AE1-080A	28.97
BAYOU	BAYOU	2.68
BIG_CAJUN1	BIG_CAJUN1	3.65
BIG_CAJUN2	BIG_CAJUN2	7.38
CBM-N	CBM-N	1.88
CBM-S2	CBM-S2	1.51
CHOCTAW	CHOCTAW	1.86
COFFEEN	COFFEEN	2.9
COTTONWOOD	COTTONWOOD	11.21
CPLE	CPLE	0.83
DUCKCREEK	DUCKCREEK	13.24
EDWARDS	EDWARDS	6.53
ELMERSMITH	ELMERSMITH	0.06
FARMERCITY	FARMERCITY	2.93
G-007A	G-007A	5.81
GIBSON	GIBSON	0.07
IPL	IPL	0.24
LGEE	LGEE	0.8
MECS	MECS	14.39
NEWTON	NEWTON	4.39
NYISO	NYISO	8.16
O-066A	O-066A	2.72
PRAIRIE	PRAIRIE	11.96
SMITHLAND	SMITHLAND	0.45
TATANKA	TATANKA	6.5
TILTON	TILTON	2.24
TVA	TVA	2.01
UNIONPOWER	UNIONPOWER	1.66
VFT	VFT	15.63

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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
637595	270644	WILTON ;	CE	243206	05DUMONT	AEP	1	COMED_P7_345-L94507_B-S_+_345-L97008_R-S	tower	4105.0	110.78	111.05	DC	45.08

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	32.17
274722	S-055 E	29.55
274772	LINCOLN ;3U	4.7
274773	LINCOLN ;4U	4.7
274774	LINCOLN ;5U	4.7
274775	LINCOLN ;6U	4.7
274776	LINCOLN ;7U	4.7
274777	LINCOLN ;8U	4.7
274832	U4-027	28.06
274859	EASYR;U1 E	29.13
274860	EASYR;U2 E	29.13
274888	PILOT HIL;1E	44.3
274890	CAYUG;1U E	36.07
274891	CAYUG;2U E	36.07
275149	KEMPTON ;1E	44.3
290021	O50 E	49.24
290051	GSG-6; E	28.08
290108	LEEDK;1U E	65.57
293061	N-015 E	41.22
293516	O-009 E1	23.79
293517	O-009 E2	12.09
293518	O-009 E3	13.31
293644	O22 E1	25.31
293645	O22 E2	49.12
293715	O-029 E	25.78
293716	O-029 E	14.13
293717	O-029 E	12.99
293771	O-035 E	16.49
294392	P-010 E	52.34
294401	BSHIL;1U E	8.47
294410	BSHIL;2U E	8.47
294763	P-046 E	24.88
295109	WESTBROOK E	15.03
295111	SUBLETTE E	6.87
296125	R-030 C3	9.31
296128	R-030 E3	37.24
296271	R-030 C2	9.2
296272	R-030 E2	36.8
296308	R-030 C1	9.2
296309	R-030 E1	36.8

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Bus #	Bus	MW Impact
910542	X3-005 E	1.57
914641	Y2-103	118.19
915011	Y3-013 1	9.85
915021	Y3-013 2	9.85
915031	Y3-013 3	9.85
916211	Z1-072 E	12.48
916221	Z1-073 E	14.49
916502	Z1-106 E1	3.41
916504	Z1-106 E2	3.41
916512	Z1-107 E	6.53
916522	Z1-108 E	6.62
917502	Z2-087 E	48.13
918052	AA1-018 E	40.41
919221	AA1-146	46.5
919581	AA2-030	46.5
919621	AA2-039 C	5.39
919622	AA2-039 E	36.04
920272	AA2-123 E	6.51
924471	AB2-096	112.6
925161	AB2-173	8.29
925302	AB2-191 E	3.72
925581	AC1-033 C	3.62
925582	AC1-033 E	24.22
926311	AC1-109 1	5.21
926321	AC1-109 2	5.21
926331	AC1-110 1	5.12
926341	AC1-110 2	5.12
926351	AC1-111 1	2.07
926361	AC1-111 2	2.07
926371	AC1-111 3	2.07
926381	AC1-111 4	2.07
926391	AC1-111 5	2.07
926401	AC1-111 6	2.07
926431	AC1-114	6.32
926821	AC1-168 C O1	2.98
926822	AC1-168 E O1	20.01
927091	AC1-204 1	184.27
927101	AC1-204 2	184.31
927201	AC1-214 C O1	5.29
927202	AC1-214 E O1	16.83
927451	AC1-142A 1	10.61
927461	AC1-142A 2	10.61
927511	AC1-113 1	3.16
927521	AC1-113 2	3.16
927531	AC1-185 1	1.82
927541	AC1-185 2	1.82
927551	AC1-185 3	1.82
927561	AC1-185 4	1.82
927571	AC1-185 5	1.82
927581	AC1-185 6	1.82
927591	AC1-185 7	1.82
927601	AC1-185 8	1.82

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Bus #	Bus	MW Impact
930481	AB1-089	175.15
930501	AB1-091 O1	173.97
930741	AB1-122 1O1	194.95
930751	AB1-122 2O1	188.67
932881	AC2-115 1	6.32
932891	AC2-115 2	6.32
932921	AC2-116	2.21
932931	AC2-117	14.95
933341	AC2-147 C	2.31
933342	AC2-147 E	3.77
933411	AC2-154 C	6.01
933412	AC2-154 E	9.81
933431	AC2-156 C O1	2.64
933432	AC2-156 E O1	4.3
933911	AD1-013 C	4.95
933912	AD1-013 E	7.9
933931	AD1-016 C	2.47
933932	AD1-016 E	4.03
934051	AD1-031 C O1	7.35
934052	AD1-031 E O1	11.99
934101	AD1-039 1	19.1
934111	AD1-039 2	18.49
934401	AD1-064 C O1	8.56
934402	AD1-064 E O1	40.08
934431	AD1-067 C	0.35
934432	AD1-067 E	1.48
934651	AD1-096 C	2.37
934652	AD1-096 E	3.86
934701	AD1-098 C O1	18.47
934702	AD1-098 E O1	13.48
934721	AD1-100 C	51.04
934722	AD1-100 E	238.17
934871	AD1-116 C	2.35
934872	AD1-116 E	3.84
934881	AD1-117 C	14.23
934882	AD1-117 E	9.49
934971	AD1-129 C	2.4
934972	AD1-129 E	1.6
935001	AD1-133 C O1	55.95
935002	AD1-133 E O1	37.3
936291	AD2-038 C O1	5.86
936292	AD2-038 E O1	39.2
936371	AD2-047 C O1	5.38
936372	AD2-047 E O1	57.91
936461	AD2-060	6.33
936511	AD2-066 C O1	21.47
936512	AD2-066 E O1	14.31
936781	AD2-101 C	10.68
936782	AD2-101 E	49.98
936791	AD2-102 C	31.89
936792	AD2-102 E	30.64
936961	AD2-130	1.4

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Bus #	Bus	MW Impact
937001	AD2-134 C	7.34
937002	AD2-134 E	30.33
937031	AD2-137 C O1	10.26
937032	AD2-137 E O1	48.01
937051	AD2-140 C O1	10.5
937052	AD2-140 E O1	49.17
937061	AD2-141 C O1	10.44
937062	AD2-141 E O1	49.23
937071	AD2-142 C O1	21.0
937072	AD2-142 E O1	98.34
937121	AD2-148 C O1	8.35
937122	AD2-148 E O1	39.1
937131	AD2-149 C O1	8.35
937132	AD2-149 E O1	39.1
937141	AD2-150 C O1	8.35
937142	AD2-150 E O1	39.1
937181	AD2-155 C O1	8.35
937182	AD2-155 E O1	39.1
937311	AD2-172 C	6.53
937312	AD2-172 E	9.02
937321	AD2-175 C	38.91
937322	AD2-175 E	25.94
937331	AD2-176 C O1	19.52
937332	AD2-176 E O1	13.01
937401	AD2-194 1	19.82
937411	AD2-194 2	19.82
937531	AD2-214 C	11.6
937532	AD2-214 E	5.46
938012	AE1-002 E O1	20.59
938511	AE1-070 1	23.28
938521	AE1-070 2	21.31
938851	AE1-113 C O1	21.75
938852	AE1-113 E O1	68.37
938861	AE1-114 C O1	9.46
938862	AE1-114 E O1	36.16
939051	AE1-134 1	3.61
939061	AE1-134 2	3.61
939321	AE1-163 C O1	14.69
939322	AE1-163 E O1	90.24
939351	AE1-166 C O1	26.27
939352	AE1-166 E O1	24.25
939401	AE1-172 C O1	16.57
939402	AE1-172 E O1	77.57
939631	AE1-193 C O1	17.95
939632	AE1-193 E O1	120.14
939641	AE1-194 C	21.1
939642	AE1-194 E	141.24
939651	AE1-195 C	21.1
939652	AE1-195 E	141.24
939681	AE1-198 C O1	53.3
939682	AE1-198 E O1	45.3
939691	AE1-199	6.42

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Bus #	Bus	MW Impact
939701	AE1-201 C	5.34
939702	AE1-201 E	1.17
939732	AE1-204 E	0.77
939861	AE1-222 1	215.29
939871	AE1-222 2	208.36
939921	AE1-228 C O1	26.62
939922	AE1-228 E O1	17.75
939961	AE1-233 C O1	6.29
939962	AE1-233 E O1	25.97
940101	AE1-252 C O1	27.05
940102	AE1-252 E O1	18.03
AB2-013	AB2-013	41.07
AE1-033	AE1-033	47.69
BLUEG	BLUEG	16.82
CALDERWOOD	CALDERWOOD	0.23
CANNELTON	CANNELTON	0.26
CARR	CARR	1.97
CATAWBA	CATAWBA	0.8
CBM-S1	CBM-S1	3.44
CBM-W1	CBM-W1	76.96
CBM-W2	CBM-W2	140.68
CHEOAH	CHEOAH	0.24
CHILHOWEE	CHILHOWEE	0.07
DEARBORN	DEARBORN	6.43
ELMERSMITH	ELMERSMITH	0.27
G-007	G-007	5.53
GIBSON	GIBSON	0.08
HAMLET	HAMLET	3.02
MEC	MEC	98.2
O-066	O-066	18.61
RENSSELAER	RENSSELAER	1.56
SANTEETLA	SANTEETLA	0.08
TRIMBLE	TRIMBLE	1.99
WEC	WEC	20.94
Z1-043	Z1-043	73.86

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
303421	270804	LATHAM ; T	CE	905080	W4-005 TAP	CE	1	COMED_P4_080-45-BT8-13_FSA	breaker	1334.0	116.75	117.81	DC	14.13

Bus #	Bus	MW Impact
274650	KINCAID ;1U	14.5
274651	KINCAID ;2U	14.54
276150	W2-048 E	2.27
909052	X2-022 E	31.55
916512	Z1-107 E	1.34
924041	AB2-047 C O1	5.47
924042	AB2-047 E O1	36.58
924261	AB2-070 C O1	4.38
924262	AB2-070 E O1	29.28
925771	AC1-053 C	4.38
925772	AC1-053 E	29.28
935141	AD1-148	8.25
936771	AD2-100 C O1	25.63
936772	AD2-100 E O1	17.09
936972	AD2-131 E O1	10.17
937161	AD2-153 C O1	4.44
937162	AD2-153 E O1	20.79
937171	AD2-154 C O1	4.44
937172	AD2-154 E O1	20.79
938012	AE1-002 E O1	4.19
939741	AE1-205 C O1	14.13
939742	AE1-205 E O1	19.51
940103	AE1-252 EBAT	14.13
950291	J291	3.48
950701	J196 C	0.8
950702	J196 E	3.21
951001	J339	7.49
951741	J474 C	3.47
951742	J474 E	18.76
952251	J641	11.03
952271	J644	11.28
952321	J734	6.29
952651	J756 C	4.08
952652	J756 E	22.09
952871	J757 C	4.84
952872	J757 E	26.18
953241	J467 C	1.47
953242	J467 E	7.98
953401	J811	9.03
953651	J815	31.39

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Bus #	Bus	MW Impact
953741	J826 C	1.93
953742	J826 E	10.44
953801	J835 C	3.19
953802	J835 E	17.25
953851	J845 C	1.89
953852	J845 E	10.25
953881	J848 C	4.84
953882	J848 E	26.16
954081	J872 C	3.71
954082	J872 E	20.05
954181	J884	14.24
954411	J912	11.88
954681	J949	14.32
954721	J750 C	2.93
954722	J750 E	15.83
954761	J468 C	3.11
954762	J468 E	12.45
CBM-N	CBM-N	0.55
CBM-S1	CBM-S1	8.94
CBM-S2	CBM-S2	2.79
CBM-W2	CBM-W2	101.09
CIN	CIN	9.06
CPLE	CPLE	0.99
DEARBORN	DEARBORN	0.52
G-007A	G-007A	1.82
IPL	IPL	4.97
LGEE	LGEE	1.4
MEC	MEC	5.83
NYISO	NYISO	2.37
O-066A	O-066A	0.85
VFT	VFT	4.9

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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
303411	255104	17GREEN_ACRE	NIPS	270771	GREENACRE; T	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1091.0	117.87	118.18	DC	11.15

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

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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

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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

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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	6.63
939922	AE1-228 E O1	4.42
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

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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
303254	255112	17STJOHN	NIPS	270886	ST JOHN ; T	CE	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.73	137.14	DC	12.19

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.02
274654	BRAIDWOOD;1U	19.04
274655	BRAIDWOOD;2U	18.23
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.87
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.87
274722	S-055 E	8.44
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274832	U4-027	7.92
274859	EASYR;U1 E	8.15
274860	EASYR;U2 E	8.15
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.75
274891	CAYUG;2U E	9.75
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.76
290108	LEEDK;1U E	18.03
293061	N-015 E	11.58
293516	O-009 E1	6.68
293517	O-009 E2	3.39
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.22
293716	O-029 E	3.96
293717	O-029 E	3.64
293771	O-035 E	3.58
294392	P-010 E	14.71
294763	P-046 E	6.96
295109	WESTBROOK E	4.15
295111	SUBLETTE E	1.92
910542	X3-005 E	0.45

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Bus #	Bus	MW Impact
914641	Y2-103	33.74
915011	Y3-013 1	2.81
915021	Y3-013 2	2.81
915031	Y3-013 3	2.81
916211	Z1-072 E	3.54
916221	Z1-073 E	4.0
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	13.02
919581	AA2-030	13.02
920272	AA2-123 E	1.82
924471	AB2-096	31.56
925161	AB2-173	2.32
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	0.84
926822	AC1-168 E O1	5.67
927091	AC1-204 1	55.21
927101	AC1-204 2	55.14
927201	AC1-214 C O1	1.5
927202	AC1-214 E O1	4.77
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	48.94
930501	AB1-091 O1	50.6
930741	AB1-122 1O1	53.06
930751	AB1-122 2O1	56.3
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77

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Bus #	Bus	MW Impact
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.05
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.18
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.2
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.18
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	5.1
934702	AD1-098 E O1	3.73
934721	AD1-100 C	14.28
934722	AD1-100 E	66.63
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.98
934882	AD1-117 E	2.65
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.18
935002	AD1-133 E O1	10.12
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	16.74
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	8.94
936792	AD2-102 E	8.59
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.37
937031	AD2-137 C O1	2.45
937032	AD2-137 E O1	11.47
937051	AD2-140 C O1	2.45
937052	AD2-140 E O1	11.47
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.48
937071	AD2-142 C O1	4.9

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Bus #	Bus	MW Impact
937072	AD2-142 E O1	22.93
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
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	2.52
937321	AD2-175 C	11.32
937322	AD2-175 E	7.54
937331	AD2-176 C O1	5.47
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	3.25
937532	AD2-214 E	1.53
938012	AE1-002 E O1	4.92
938511	AE1-070 1	6.98
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	10.12
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	4.48
939402	AE1-172 E O1	20.97
939641	AE1-194 C	18.96
939642	AE1-194 E	126.87
939651	AE1-195 C	18.96
939652	AE1-195 E	126.87
939691	AE1-199	1.77
939701	AE1-201 C	1.49
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.6
939871	AE1-222 2	62.17
939921	AE1-228 C O1	7.42
939922	AE1-228 E O1	4.94
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.14
940101	AE1-252 C O1	7.31
940102	AE1-252 E O1	4.88
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.44

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Bus #	Bus	MW Impact
BLUEG	BLUEG	5.04
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.0
CBM-W2	CBM-W2	37.11
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.13
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.54
O-066	O-066	5.29
RENSSELAER	RENSSELAER	0.44
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.96
Z1-043	Z1-043	20.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
635742	255113	17STILLWELL	NIPS	243219	05DUMONT	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1409.0	182.75	183.1	DC	19.7

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

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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

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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

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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	11.46
939922	AE1-228 E O1	7.64
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

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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
303278	270668	BLUEMOUND; B	CE	270852	PONTIAC ; B	CE	1	COMED_P4_080-45-BT7-8_FSA	breaker	1528.0	119.79	121.07	DC	19.58

Bus #	Bus	MW Impact
274650	KINCAID ;1U	12.75
274651	KINCAID ;2U	12.79
274853	TWINGROVE;U1	3.02
274854	TWINGROVE;U2	3.02
276150	W2-048 E	2.0
290261	S-027 E	78.75
290265	S-028 E	78.75
905081	W4-005 C	2.58
905082	W4-005 E	112.81
909052	X2-022 E	27.75
917501	Z2-087 C	0.59
917502	Z2-087 E	25.71
924041	AB2-047 C O1	4.8
924042	AB2-047 E O1	32.14
924261	AB2-070 C O1	3.85
924262	AB2-070 E O1	25.73
925771	AC1-053 C	3.85
925772	AC1-053 E	25.74
935141	AD1-148	7.25
936771	AD2-100 C O1	22.49
936772	AD2-100 E O1	14.99
936972	AD2-131 E O1	8.93
937161	AD2-153 C O1	3.9
937162	AD2-153 E O1	18.26
937171	AD2-154 C O1	3.9
937172	AD2-154 E O1	18.26
937211	AD2-159 C	12.19
937212	AD2-159 E	57.07
938012	AE1-002 E O1	4.54
939741	AE1-205 C O1	12.41
939742	AE1-205 E O1	17.14
940103	AE1-252 EBAT	19.58
950291	J291	3.09
950701	J196 C	0.68
950702	J196 E	2.74
951001	J339	6.46
951741	J474 C	3.02
951742	J474 E	16.32
952251	J641	9.84
952271	J644	9.95
952321	J734	5.43

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Bus #	Bus	MW Impact
952651	J756 C	3.6
952652	J756 E	19.46
952871	J757 C	4.27
952872	J757 E	23.11
953241	J467 C	1.27
953242	J467 E	6.86
953401	J811	7.81
953651	J815	27.31
953741	J826 C	1.67
953742	J826 E	9.04
953801	J835 C	2.81
953802	J835 E	15.22
953851	J845 C	1.63
953852	J845 E	8.82
953881	J848 C	4.2
953882	J848 E	22.73
954081	J872 C	3.22
954082	J872 E	17.41
954181	J884	12.39
954411	J912	10.31
954681	J949	12.2
954721	J750 C	2.57
954722	J750 E	13.9
954761	J468 C	2.65
954762	J468 E	10.62
CBM-N	CBM-N	0.39
CBM-S1	CBM-S1	7.75
CBM-S2	CBM-S2	2.33
CBM-W2	CBM-W2	89.56
CIN	CIN	7.74
CPLE	CPLE	0.81
DEARBORN	DEARBORN	0.59
G-007A	G-007A	1.33
IPL	IPL	4.21
LGEE	LGEE	1.16
MEC	MEC	6.75
NYISO	NYISO	1.7
O-066A	O-066A	0.62
VFT	VFT	3.56

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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
303416	270677	BURNHAM ;0R	CE	255109	17MUNSTER	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1441.0	117.57	117.9	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

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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	17.71
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
925581	AC1-033 C	0.27
925582	AC1-033 E	1.78
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

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Bus #	Bus	MW Impact
932881	AC2-115 1	2.31
932891	AC2-115 2	2.31
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

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Bus #	Bus	MW Impact
937061	AD2-141 C O1	3.7
937062	AD2-141 E O1	17.44
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
939861	AE1-222 1	77.33
939871	AE1-222 2	78.4
939921	AE1-228 C O1	9.62
939922	AE1-228 E O1	6.42
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

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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
303749	270704	LORETTO ; B	CE	939400	AE1-172 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	single	1528.0	116.69	120.31	DC	55.08

Bus #	Bus	MW Impact
274650	KINCAID ;1U	17.25
274651	KINCAID ;2U	17.28
274853	TWINGROVE;U1	2.5
274854	TWINGROVE;U2	2.5
274863	CAYUGA RI;1U	2.82
274864	CAYUGA RI;2U	2.82
900404	X3-028 C	84.69
905081	W4-005 C	2.39
917501	Z2-087 C	2.01
924041	AB2-047 C O1	16.06
924261	AB2-070 C O1	7.65
925771	AC1-053 C	7.49
926841	AC1-171 C O1	0.96
930461	AB1-087	31.05
930471	AB1-088	31.05
933441	AC2-157 C	4.29
935001	AD1-133 C O1	90.83
935141	AD1-148	13.51
936771	AD2-100 C O1	28.25
937161	AD2-153 C O1	10.77
937171	AD2-154 C O1	10.77
937211	AD2-159 C	11.3
939741	AE1-205 C O1	41.51
940101	AE1-252 C O1	55.08
950291	J291	4.24
950701	J196 C	1.14
951001	J339	12.81
951741	J474 C	5.17
952271	J644	13.59
952321	J734	10.76
952651	J756 C	4.83
952871	J757 C	5.78
953241	J467 C	1.82
953401	J811	10.88
953651	J815	37.45
953741	J826 C	3.19
953801	J835 C	3.81
953851	J845 C	3.12
953881	J848 C	5.76
954081	J872 C	4.43

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Bus #	Bus	MW Impact
954181	J884	26.75
954411	J912	14.21
954721	J750 C	3.62
954761	J468 C	4.06
AD2-098	AD2-098	0.36
AE1-042	AE1-042	6.61
CBM-N	CBM-N	0.57
CBM-S1	CBM-S1	11.07
CBM-S2	CBM-S2	3.34
CBM-W2	CBM-W2	129.48
CIN	CIN	11.59
CPLE	CPLE	1.17
DEARBORN	DEARBORN	0.85
G-007A	G-007A	1.93
IPL	IPL	6.27
LGEE	LGEE	1.7
MEC	MEC	9.12
NYISO	NYISO	2.48
O-066A	O-066A	0.9
VFT	VFT	5.19

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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
303395	270728	E FRANKFO; B	CE	274750	CRETE EC ;BP	CE	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	118.93	119.39	DC	17.05

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

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

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

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Bus #	Bus	MW Impact
937062	AD2-141 E O1	15.59
937071	AD2-142 C O1	6.65
937072	AD2-142 E O1	31.14
937121	AD2-148 C O1	3.24
937122	AD2-148 E O1	15.15
937131	AD2-149 C O1	3.24
937132	AD2-149 E O1	15.15
937141	AD2-150 C O1	3.24
937142	AD2-150 E O1	15.15
937181	AD2-155 C O1	3.24
937182	AD2-155 E O1	15.15
937311	AD2-172 C	2.58
937312	AD2-172 E	3.57
937321	AD2-175 C	15.07
937322	AD2-175 E	10.05
937331	AD2-176 C O1	7.72
937332	AD2-176 E O1	5.15
937401	AD2-194 1	8.42
937411	AD2-194 2	8.41
937531	AD2-214 C	4.61
937532	AD2-214 E	2.17
938012	AE1-002 E O1	6.71
938511	AE1-070 1	9.9
938521	AE1-070 2	9.04
938851	AE1-113 C O1	8.93
938852	AE1-113 E O1	28.07
938861	AE1-114 C O1	3.74
938862	AE1-114 E O1	14.3
939051	AE1-134 1	1.43
939061	AE1-134 2	1.43
939321	AE1-163 C O1	6.65
939322	AE1-163 E O1	40.82
939351	AE1-166 C O1	10.67
939352	AE1-166 E O1	9.85
939401	AE1-172 C O1	6.26
939402	AE1-172 E O1	29.29
939631	AE1-193 C O1	1.03
939632	AE1-193 E O1	6.9
939681	AE1-198 C O1	21.36
939682	AE1-198 E O1	18.15
939691	AE1-199	2.5
939701	AE1-201 C	2.11
939702	AE1-201 E	0.46
939732	AE1-204 E	0.31
939861	AE1-222 1	82.47
939871	AE1-222 2	88.2
939921	AE1-228 C O1	10.48
939922	AE1-228 E O1	6.99
939961	AE1-233 C O1	2.44
939962	AE1-233 E O1	10.07
940101	AE1-252 C O1	10.23
940102	AE1-252 E O1	6.82

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

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
636006	270771	GREENACRE; T	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	132.42	132.77	DC	11.15

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

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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

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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

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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	6.63
939922	AE1-228 E O1	4.42
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

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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
303325	270796	KINCAID ; B	CE	347955	7AUSTIN	AMIL	1	COMED_P4_080-45-BT7-8_FSA	breaker	956.0	126.99	127.48	DC	10.47

Bus #	Bus	MW Impact
274650	KINCAID ;1U	33.39
274651	KINCAID ;2U	33.74
274853	TWINGROVE;U1	0.9
274854	TWINGROVE;U2	0.9
274890	CAYUG;1U E	8.38
274891	CAYUG;2U E	8.38
276150	W2-048 E	3.33
290261	S-027 E	23.55
290265	S-028 E	23.55
296125	R-030 C3	3.13
296128	R-030 E3	12.51
296271	R-030 C2	3.09
296272	R-030 E2	12.36
296308	R-030 C1	3.09
296309	R-030 E1	12.36
905081	W4-005 C	1.33
905082	W4-005 E	58.14
909052	X2-022 E	46.2
917501	Z2-087 C	0.76
917502	Z2-087 E	33.31
924041	AB2-047 C O1	6.22
924042	AB2-047 E O1	41.64
924261	AB2-070 C O1	5.83
924262	AB2-070 E O1	39.01
925771	AC1-053 C	6.01
925772	AC1-053 E	40.25
935141	AD1-148	12.07
936771	AD2-100 C O1	43.36
936772	AD2-100 E O1	28.91
936972	AD2-131 E O1	17.21
937161	AD2-153 C O1	5.05
937162	AD2-153 E O1	23.66
937171	AD2-154 C O1	5.05
937172	AD2-154 E O1	23.66
937211	AD2-159 C	6.28
937212	AD2-159 E	29.41
939401	AE1-172 C O1	2.99
939402	AE1-172 E O1	13.99
939741	AE1-205 C O1	16.08
939742	AE1-205 E O1	22.21
940101	AE1-252 C O1	6.28

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Bus #	Bus	MW Impact
940102	AE1-252 E O1	4.19
950701	J196 C	0.82
950702	J196 E	3.27
951001	J339	9.08
951741	J474 C	3.6
951742	J474 E	19.47
952321	J734	7.63
952651	J756 C	2.54
952652	J756 E	13.74
953741	J826 C	2.24
953742	J826 E	12.1
953851	J845 C	2.23
953852	J845 E	12.07
954181	J884	18.55
954761	J468 C	2.16
954762	J468 E	8.63
AE1-080A	AE1-080A	16.78
BAYOU	BAYOU	3.08
BIG_CAJUN1	BIG_CAJUN1	4.45
BIG_CAJUN2	BIG_CAJUN2	8.97
CALDERWOOD	CALDERWOOD	0.71
CANNELTON	CANNELTON	0.1
CARR	CARR	0.06
CATAWBA	CATAWBA	0.3
CHEOAH	CHEOAH	0.64
CHILHOWEE	CHILHOWEE	0.23
CHOCTAW	CHOCTAW	2.59
CIN	CIN	1.79
COFFEEN	COFFEEN	2.24
COTTONWOOD	COTTONWOOD	12.59
DUCKCREEK	DUCKCREEK	11.8
EDWARDS	EDWARDS	1.72
ELMERSMITH	ELMERSMITH	0.26
FARMERCITY	FARMERCITY	1.97
G-007	G-007	0.18
HAMLET	HAMLET	0.91
IPL	IPL	0.73
MECS	MECS	1.01
NEWTON	NEWTON	1.48
O-066	O-066	0.6
PRAIRIE	PRAIRIE	11.37
RENSSELAER	RENSSELAER	0.04
SANTEETLA	SANTEETLA	0.19
SMITHLAND	SMITHLAND	0.5
TATANKA	TATANKA	2.97
TVA	TVA	3.47
UNIONPOWER	UNIONPOWER	2.11

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
303782	270853	PONTIAC ; R	CE	935000	AD1-133 TAP	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	104.49	107.24	DC	41.91

Bus #	Bus	MW Impact
274650	KINCAID ;1U	15.48
274651	KINCAID ;2U	15.51
274853	TWINGROVE;U1	2.3
274854	TWINGROVE;U2	2.3
274863	CAYUGA RI;1U	2.14
274864	CAYUGA RI;2U	2.14
900404	X3-028 C	78.36
905081	W4-005 C	2.19
917501	Z2-087 C	1.85
924041	AB2-047 C O1	14.84
924261	AB2-070 C O1	6.98
925771	AC1-053 C	6.83
926841	AC1-171 C O1	0.75
930461	AB1-087	28.73
930471	AB1-088	28.73
933441	AC2-157 C	3.97
935141	AD1-148	12.29
936771	AD2-100 C O1	25.48
937161	AD2-153 C O1	9.91
937171	AD2-154 C O1	9.91
937211	AD2-159 C	10.33
939401	AE1-172 C O1	24.59
939741	AE1-205 C O1	38.35
940101	AE1-252 C O1	41.91
950701	J196 C	1.11
951001	J339	12.11
951741	J474 C	4.81
952271	J644	12.24
952321	J734	10.17
952651	J756 C	4.36
952871	J757 C	5.2
953241	J467 C	1.73
953401	J811	10.29
953651	J815	34.83
953741	J826 C	3.01
953801	J835 C	3.42
953851	J845 C	2.96
953881	J848 C	5.38
954081	J872 C	4.15
954181	J884	24.98

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Bus #	Bus	MW Impact
954411	J912	13.29
954721	J750 C	3.3
954761	J468 C	3.94
AD2-098	AD2-098	0.45
AE1-042	AE1-042	5.79
CBM-N	CBM-N	0.66
CBM-S1	CBM-S1	9.87
CBM-S2	CBM-S2	3.13
CBM-W2	CBM-W2	111.77
CIN	CIN	10.82
CPLE	CPLE	1.12
DEARBORN	DEARBORN	0.52
EDWARDS	EDWARDS	0.05
G-007A	G-007A	2.18
IPL	IPL	5.9
LGEE	LGEE	1.65
MEC	MEC	2.66
NYISO	NYISO	2.85
O-066A	O-066A	1.01
TATANKA	TATANKA	0.42
VFT	VFT	5.85

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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
303249	270886	ST JOHN ; T	CE	255104	17GREEN_ACRE	NIPS	1	COMED_P4_112-65-BT3-4__	breaker	1091.0	136.72	137.13	DC	12.19

Bus #	Bus	MW Impact
270859	PWR VTR EC;R	9.02
274654	BRAIDWOOD;1U	19.04
274655	BRAIDWOOD;2U	18.23
274687	WILL CNTY;4U	8.03
274704	KENDALL ;1C	2.81
274705	KENDALL ;1S	1.87
274706	KENDALL ;2C	2.81
274707	KENDALL ;2S	1.87
274722	S-055 E	8.44
274751	CRETE EC ;1U	3.36
274752	CRETE EC ;2U	3.36
274753	CRETE EC ;3U	3.36
274754	CRETE EC ;4U	3.36
274832	U4-027	7.92
274859	EASYR;U1 E	8.15
274860	EASYR;U2 E	8.15
274861	TOP CROP ;1U	0.33
274862	TOP CROP ;2U	0.63
274888	PILOT HIL;1E	12.81
274890	CAYUG;1U E	9.75
274891	CAYUG;2U E	9.75
275149	KEMPTON ;1E	12.81
290021	O50 E	14.65
290051	GSG-6; E	7.76
290108	LEEDK;1U E	18.03
293061	N-015 E	11.58
293516	O-009 E1	6.68
293517	O-009 E2	3.39
293518	O-009 E3	3.74
293644	O22 E1	8.5
293645	O22 E2	16.51
293715	O-029 E	7.22
293716	O-029 E	3.96
293717	O-029 E	3.64
293771	O-035 E	3.58
294392	P-010 E	14.71
294763	P-046 E	6.96
295109	WESTBROOK E	4.15
295111	SUBLETTE E	1.92
910542	X3-005 E	0.45

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Bus #	Bus	MW Impact
914641	Y2-103	33.74
915011	Y3-013 1	2.81
915021	Y3-013 2	2.81
915031	Y3-013 3	2.81
916211	Z1-072 E	3.54
916221	Z1-073 E	4.0
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	13.02
919581	AA2-030	13.02
920272	AA2-123 E	1.82
924471	AB2-096	31.56
925161	AB2-173	2.32
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	0.84
926822	AC1-168 E O1	5.67
927091	AC1-204 1	55.21
927101	AC1-204 2	55.14
927201	AC1-214 C O1	1.5
927202	AC1-214 E O1	4.77
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	48.94
930501	AB1-091 O1	50.6
930741	AB1-122 1O1	53.06
930751	AB1-122 2O1	56.3
932881	AC2-115 1	1.77
932891	AC2-115 2	1.77

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Bus #	Bus	MW Impact
932921	AC2-116	0.62
933341	AC2-147 C	0.65
933342	AC2-147 E	1.05
933411	AC2-154 C	1.74
933412	AC2-154 E	2.84
933431	AC2-156 C O1	0.71
933432	AC2-156 E O1	1.16
933911	AD1-013 C	1.37
933912	AD1-013 E	2.18
933931	AD1-016 C	0.69
933932	AD1-016 E	1.13
934101	AD1-039 1	5.2
934111	AD1-039 2	5.52
934401	AD1-064 C O1	2.39
934402	AD1-064 E O1	11.18
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	5.1
934702	AD1-098 E O1	3.73
934721	AD1-100 C	14.28
934722	AD1-100 E	66.63
934871	AD1-116 C	0.68
934872	AD1-116 E	1.11
934881	AD1-117 C	3.98
934882	AD1-117 E	2.65
934971	AD1-129 C	0.67
934972	AD1-129 E	0.45
935001	AD1-133 C O1	15.18
935002	AD1-133 E O1	10.12
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	16.74
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	8.94
936792	AD2-102 E	8.59
936961	AD2-130	0.42
937001	AD2-134 C	2.03
937002	AD2-134 E	8.37
937031	AD2-137 C O1	2.45
937032	AD2-137 E O1	11.47
937051	AD2-140 C O1	2.45
937052	AD2-140 E O1	11.47
937061	AD2-141 C O1	2.43
937062	AD2-141 E O1	11.48
937071	AD2-142 C O1	4.9

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Bus #	Bus	MW Impact
937072	AD2-142 E O1	22.93
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
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	2.52
937321	AD2-175 C	11.32
937322	AD2-175 E	7.54
937331	AD2-176 C O1	5.47
937332	AD2-176 E O1	3.65
937401	AD2-194 1	5.94
937411	AD2-194 2	5.93
937531	AD2-214 C	3.25
937532	AD2-214 E	1.53
938012	AE1-002 E O1	4.92
938511	AE1-070 1	6.98
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	10.12
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	4.48
939402	AE1-172 E O1	20.97
939641	AE1-194 C	18.96
939642	AE1-194 E	126.87
939651	AE1-195 C	18.96
939652	AE1-195 E	126.87
939691	AE1-199	1.77
939701	AE1-201 C	1.49
939702	AE1-201 E	0.33
939732	AE1-204 E	0.22
939861	AE1-222 1	58.6
939871	AE1-222 2	62.17
939921	AE1-228 C O1	7.42
939922	AE1-228 E O1	4.94
939961	AE1-233 C O1	1.73
939962	AE1-233 E O1	7.14
940101	AE1-252 C O1	7.31
940102	AE1-252 E O1	4.88
AB2-013	AB2-013	11.87
AE1-033	AE1-033	13.44

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Bus #	Bus	MW Impact
BLUEG	BLUEG	5.04
CALDERWOOD	CALDERWOOD	0.09
CANNELTON	CANNELTON	0.11
CARR	CARR	0.56
CATAWBA	CATAWBA	0.23
CBM-S1	CBM-S1	0.77
CBM-W1	CBM-W1	20.0
CBM-W2	CBM-W2	37.11
CHEOAH	CHEOAH	0.09
CHILHOWEE	CHILHOWEE	0.03
DEARBORN	DEARBORN	2.24
ELMERSMITH	ELMERSMITH	0.13
G-007	G-007	1.57
GIBSON	GIBSON	0.06
HAMLET	HAMLET	0.87
MEC	MEC	27.54
O-066	O-066	5.29
RENSSELAER	RENSSELAER	0.44
SANTEETLA	SANTEETLA	0.03
TRIMBLE	TRIMBLE	0.59
WEC	WEC	5.96
Z1-043	Z1-043	20.96

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
303111	270926	WILTON ; B	CE	275232	WILTON ;3M	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	169.93	170.23	DC	25.32

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

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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

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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

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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	12.28
939742	AE1-205 E O1	16.95
939861	AE1-222 1	98.68
939871	AE1-222 2	99.73
939921	AE1-228 C O1	12.2
939922	AE1-228 E O1	8.13
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

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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
303114	270927	WILTON ; R	CE	275233	WILTON ;4M	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.69	170.14	DC	25.82

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

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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

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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

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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	12.53
939742	AE1-205 E O1	17.3
939861	AE1-222 1	100.77
939871	AE1-222 2	101.86
939921	AE1-228 C O1	12.45
939922	AE1-228 E O1	8.3
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

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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
303139	274750	CRETE EC ;BP	CE	255112	17STJOHN	NIPS	1	AEP_P4_#2978_05DUMONT 765_B	breaker	1399.0	163.53	164.02	DC	16.81

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

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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

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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

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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	10.34
939922	AE1-228 E O1	6.9
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

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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
635875	274804	UNIV PK N;RP	CE	243229	05OLIVE	AEP	1	AEP_P4_#2978_05DUMONT 765_B	breaker	971.0	143.73	144.19	DC	13.37

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

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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

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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

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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	8.02
939922	AE1-228 E O1	5.35
939961	AE1-233 C O1	1.88
939962	AE1-233 E O1	7.77
940101	AE1-252 C O1	8.02

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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
303113	275232	WILTON ;3M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT5-6__	breaker	1379.0	169.93	170.23	DC	25.32

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

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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

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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

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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	12.28
939742	AE1-205 E O1	16.95
939861	AE1-222 1	98.68
939871	AE1-222 2	99.73
939921	AE1-228 C O1	12.2
939922	AE1-228 E O1	8.13
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

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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
303116	275233	WILTON ;4M	CE	270644	WILTON ;	CE	1	COMED_P4_112-65-BT2-3__	breaker	1379.0	169.69	170.14	DC	25.82

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

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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

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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

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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	12.53
939742	AE1-205 E O1	17.3
939861	AE1-222 1	100.77
939871	AE1-222 2	101.86
939921	AE1-228 C O1	12.45
939922	AE1-228 E O1	8.3
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

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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
303256	905080	W4-005 TAP	CE	270668	BLUEMOUND; B	CE	1	COMED_P4_080-45-BT8-13_FSA	breaker	1334.0	136.04	137.1	DC	14.15

Bus #	Bus	MW Impact
274650	KINCAID ;1U	14.48
274651	KINCAID ;2U	14.52
276150	W2-048 E	2.27
905081	W4-005 C	2.96
905082	W4-005 E	129.31
909052	X2-022 E	31.51
916512	Z1-107 E	1.35
924041	AB2-047 C O1	5.46
924042	AB2-047 E O1	36.53
924261	AB2-070 C O1	4.37
924262	AB2-070 E O1	29.24
925771	AC1-053 C	4.37
925772	AC1-053 E	29.24
935141	AD1-148	8.23
936771	AD2-100 C O1	25.6
936772	AD2-100 E O1	17.07
936972	AD2-131 E O1	10.16
937161	AD2-153 C O1	4.43
937162	AD2-153 E O1	20.76
937171	AD2-154 C O1	4.43
937172	AD2-154 E O1	20.76
937211	AD2-159 C	13.97
937212	AD2-159 E	65.42
938012	AE1-002 E O1	4.2
939741	AE1-205 C O1	14.11
939742	AE1-205 E O1	19.48
940103	AE1-252 EBAT	14.15
950291	J291	3.48
950701	J196 C	0.8
950702	J196 E	3.21
951001	J339	7.49
951741	J474 C	3.47
951742	J474 E	18.76
952251	J641	11.03
952271	J644	11.28
952321	J734	6.29
952651	J756 C	4.08
952652	J756 E	22.09
952871	J757 C	4.84
952872	J757 E	26.18

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Bus #	Bus	MW Impact
953241	J467 C	1.47
953242	J467 E	7.98
953401	J811	9.03
953651	J815	31.39
953741	J826 C	1.93
953742	J826 E	10.44
953801	J835 C	3.19
953802	J835 E	17.25
953851	J845 C	1.89
953852	J845 E	10.25
953881	J848 C	4.84
953882	J848 E	26.16
953951	J859	9.51
954081	J872 C	3.71
954082	J872 E	20.05
954181	J884	14.24
954411	J912	11.88
954681	J949	14.32
954721	J750 C	2.93
954722	J750 E	15.83
954761	J468 C	3.11
954762	J468 E	12.45
CBM-N	CBM-N	0.53
CBM-S1	CBM-S1	8.86
CBM-S2	CBM-S2	2.75
CBM-W2	CBM-W2	100.52
CIN	CIN	9.01
CPLE	CPLE	0.97
DEARBORN	DEARBORN	0.54
G-007A	G-007A	1.76
IPL	IPL	4.93
LGEE	LGEE	1.38
MEC	MEC	5.72
NYISO	NYISO	2.29
O-066A	O-066A	0.82
VFT	VFT	4.74

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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
304457	934720	AD1-100 TAP	CE	937030	AD2-137 TAP	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	144.91	146.93	DC	37.25

Bus #	Bus	MW Impact
274654	BRAIDWOOD;1U	33.0
274655	BRAIDWOOD;2U	31.46
274660	LASCO STA;1U	20.77
274661	LASCO STA;2U	20.81
274847	GR RIDGE ;BU	0.46
274853	TWINGROVE;U1	0.88
274854	TWINGROVE;U2	0.88
274863	CAYUGA RI;1U	1.14
274864	CAYUGA RI;2U	1.14
274871	GR RIDGE ;2U	0.59
274881	PLEAS RDG;2U	0.94
274887	PILOT HIL;1U	0.94
274888	PILOT HIL;1E	24.62
274890	CAYUG;1U E	29.8
274891	CAYUG;2U E	29.8
275149	KEMPTON ;1E	24.62
276150	W2-048 E	1.36
290261	S-027 E	23.06
290265	S-028 E	23.06
293061	N-015 E	12.12
294392	P-010 E	15.39
296125	R-030 C3	5.9
296128	R-030 E3	23.58
296271	R-030 C2	5.83
296272	R-030 E2	23.3
296308	R-030 C1	5.83
296309	R-030 E1	23.3
905081	W4-005 C	0.86
905082	W4-005 E	37.37
909052	X2-022 E	18.92
917501	Z2-087 C	0.7
917502	Z2-087 E	30.46
924041	AB2-047 C O1	5.59
924042	AB2-047 E O1	37.43
924261	AB2-070 C O1	2.78
924262	AB2-070 E O1	18.6
925771	AC1-053 C	2.73
925772	AC1-053 E	18.26
925881	AC1-067 O1	219.35
926821	AC1-168 C O1	0.64

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Bus #	Bus	MW Impact
926822	AC1-168 E O1	4.29
930501	AB1-091 O1	110.96
933411	AC2-154 C	3.34
933412	AC2-154 E	5.45
934721	AD1-100 C	48.31
934722	AD1-100 E	225.47
935001	AD1-133 C O1	18.1
935002	AD1-133 E O1	12.07
935141	AD1-148	4.94
936371	AD2-047 C O1	2.99
936372	AD2-047 E O1	32.19
936461	AD2-060	3.52
936771	AD2-100 C O1	10.55
936772	AD2-100 E O1	7.04
936781	AD2-101 C	7.11
936782	AD2-101 E	33.27
936972	AD2-131 E O1	2.22
937121	AD2-148 C O1	5.34
937122	AD2-148 E O1	25.01
937131	AD2-149 C O1	5.34
937132	AD2-149 E O1	25.01
937141	AD2-150 C O1	5.34
937142	AD2-150 E O1	25.01
937161	AD2-153 C O1	3.8
937162	AD2-153 E O1	17.78
937171	AD2-154 C O1	3.8
937172	AD2-154 E O1	17.78
937181	AD2-155 C O1	5.34
937182	AD2-155 E O1	25.01
937211	AD2-159 C	4.04
937212	AD2-159 E	18.9
937321	AD2-175 C	24.89
937322	AD2-175 E	16.59
938012	AE1-002 E O1	29.83
939351	AE1-166 C O1	20.52
939352	AE1-166 E O1	18.94
939401	AE1-172 C O1	15.26
939402	AE1-172 E O1	71.45
939741	AE1-205 C O1	14.46
939742	AE1-205 E O1	19.96
940101	AE1-252 C O1	22.35
940102	AE1-252 E O1	14.9
951741	J474 C	1.71
951742	J474 E	9.28
953741	J826 C	1.0
953742	J826 E	5.4
954181	J884	8.88
AB2-013	AB2-013	5.61
BLUEG	BLUEG	0.01
CARR	CARR	0.27
CBM-S1	CBM-S1	2.75
CBM-S2	CBM-S2	0.06

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Bus #	Bus	MW Impact
CBM-W1	CBM-W1	5.33
CBM-W2	CBM-W2	48.81
CIN	CIN	2.54
DEARBORN	DEARBORN	1.27
G-007	G-007	0.73
HAMLET	HAMLET	0.06
IPL	IPL	1.1
LGEE	LGEE	0.03
MEC	MEC	13.64
O-066	O-066	2.47
RENSSELAER	RENSSELAER	0.21
TRIMBLE	TRIMBLE	0.04
WEC	WEC	1.22
Z1-043	Z1-043	14.81

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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
303756	935000	AD1-133 TAP	CE	270717	DRESDEN ; R	CE	1	COMED_P1-2_345-L11212_B-S-C-A	single	1528.0	112.23	114.98	DC	41.91

Bus #	Bus	MW Impact
274650	KINCAID ;1U	15.48
274651	KINCAID ;2U	15.51
274853	TWINGROVE;U1	2.3
274854	TWINGROVE;U2	2.3
274863	CAYUGA RI;1U	2.14
274864	CAYUGA RI;2U	2.14
900404	X3-028 C	78.36
905081	W4-005 C	2.19
917501	Z2-087 C	1.85
924041	AB2-047 C O1	14.84
924261	AB2-070 C O1	6.98
925771	AC1-053 C	6.83
926841	AC1-171 C O1	0.75
930461	AB1-087	28.73
930471	AB1-088	28.73
933441	AC2-157 C	3.97
935001	AD1-133 C O1	120.38
935141	AD1-148	12.29
936771	AD2-100 C O1	25.48
937161	AD2-153 C O1	9.91
937171	AD2-154 C O1	9.91
937211	AD2-159 C	10.33
939401	AE1-172 C O1	24.59
939741	AE1-205 C O1	38.35
940101	AE1-252 C O1	41.91
950701	J196 C	1.11
951001	J339	12.11
951741	J474 C	4.81
952271	J644	12.24
952321	J734	10.17
952651	J756 C	4.36
952871	J757 C	5.2
953241	J467 C	1.73
953401	J811	10.29
953651	J815	34.83
953741	J826 C	3.01
953801	J835 C	3.42
953851	J845 C	2.96
953881	J848 C	5.38
954081	J872 C	4.15

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Bus #	Bus	MW Impact
954181	J884	24.98
954411	J912	13.29
954721	J750 C	3.3
954761	J468 C	3.94
AD2-098	AD2-098	0.45
AE1-042	AE1-042	5.79
CBM-N	CBM-N	0.66
CBM-S1	CBM-S1	9.87
CBM-S2	CBM-S2	3.13
CBM-W2	CBM-W2	111.77
CIN	CIN	10.82
CPLE	CPLE	1.12
DEARBORN	DEARBORN	0.52
EDWARDS	EDWARDS	0.05
G-007A	G-007A	2.18
IPL	IPL	5.9
LGEE	LGEE	1.65
MEC	MEC	2.66
NYISO	NYISO	2.85
O-066A	O-066A	1.01
TATANKA	TATANKA	0.42
VFT	VFT	5.85

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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
304426	937030	AD2-137 TAP	CE	270926	WILTON ; B	CE	1	COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A	tower	1846.0	152.1	154.12	DC	37.25

Bus #	Bus	MW Impact
274654	BRAIDWOOD;1U	33.0
274655	BRAIDWOOD;2U	31.46
274660	LASCO STA;1U	20.77
274661	LASCO STA;2U	20.81
274847	GR RIDGE ;BU	0.46
274853	TWINGROVE;U1	0.88
274854	TWINGROVE;U2	0.88
274863	CAYUGA RI;1U	1.14
274864	CAYUGA RI;2U	1.14
274871	GR RIDGE ;2U	0.59
274881	PLEAS RDG;2U	0.94
274887	PILOT HIL;1U	0.94
274888	PILOT HIL;1E	24.62
274890	CAYUG;1U E	29.8
274891	CAYUG;2U E	29.8
275149	KEMPTON ;1E	24.62
276150	W2-048 E	1.36
290261	S-027 E	23.06
290265	S-028 E	23.06
293061	N-015 E	12.12
294392	P-010 E	15.39
296125	R-030 C3	5.9
296128	R-030 E3	23.58
296271	R-030 C2	5.83
296272	R-030 E2	23.3
296308	R-030 C1	5.83
296309	R-030 E1	23.3
905081	W4-005 C	0.86
905082	W4-005 E	37.37
909052	X2-022 E	18.92
917501	Z2-087 C	0.7
917502	Z2-087 E	30.46
924041	AB2-047 C O1	5.59
924042	AB2-047 E O1	37.43
924261	AB2-070 C O1	2.78
924262	AB2-070 E O1	18.6
925771	AC1-053 C	2.73
925772	AC1-053 E	18.26
925881	AC1-067 O1	219.35
930501	AB1-091 O1	110.96

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Bus #	Bus	MW Impact
933411	AC2-154 C	3.34
933412	AC2-154 E	5.45
934721	AD1-100 C	48.31
934722	AD1-100 E	225.47
935001	AD1-133 C O1	18.1
935002	AD1-133 E O1	12.07
935141	AD1-148	4.94
936371	AD2-047 C O1	2.99
936372	AD2-047 E O1	32.19
936461	AD2-060	3.52
936771	AD2-100 C O1	10.55
936772	AD2-100 E O1	7.04
936781	AD2-101 C	7.11
936782	AD2-101 E	33.27
936972	AD2-131 E O1	2.22
937031	AD2-137 C O1	18.53
937032	AD2-137 E O1	86.74
937121	AD2-148 C O1	5.34
937122	AD2-148 E O1	25.01
937131	AD2-149 C O1	5.34
937132	AD2-149 E O1	25.01
937141	AD2-150 C O1	5.34
937142	AD2-150 E O1	25.01
937161	AD2-153 C O1	3.8
937162	AD2-153 E O1	17.78
937171	AD2-154 C O1	3.8
937172	AD2-154 E O1	17.78
937181	AD2-155 C O1	5.34
937182	AD2-155 E O1	25.01
937211	AD2-159 C	4.04
937212	AD2-159 E	18.9
937321	AD2-175 C	24.89
937322	AD2-175 E	16.59
938012	AE1-002 E O1	70.17
939351	AE1-166 C O1	20.52
939352	AE1-166 E O1	18.94
939401	AE1-172 C O1	15.26
939402	AE1-172 E O1	71.45
939741	AE1-205 C O1	14.46
939742	AE1-205 E O1	19.96
940101	AE1-252 C O1	22.35
940102	AE1-252 E O1	14.9
951741	J474 C	1.71
951742	J474 E	9.28
954181	J884	8.88
AB2-013	AB2-013	5.61
BLUEG	BLUEG	0.01
CARR	CARR	0.27
CBM-S1	CBM-S1	2.75
CBM-S2	CBM-S2	0.06
CBM-W1	CBM-W1	5.33
CBM-W2	CBM-W2	48.81

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Bus #	Bus	MW Impact
CIN	CIN	2.54
DEARBORN	DEARBORN	1.27
G-007	G-007	0.73
HAMLET	HAMLET	0.06
IPL	IPL	1.1
LGEE	LGEE	0.03
MEC	MEC	13.64
O-066	O-066	2.47
RENSSELAER	RENSSELAER	0.21
TRIMBLE	TRIMBLE	0.04
WEC	WEC	1.22
Z1-043	Z1-043	14.81

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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
303713	939400	AE1-172 TAP	CE	934720	AD1-100 TAP	CE	1	COMED_P1-2_345-L8014___-S-B	single	1528.0	118.43	122.04	DC	55.08

Bus #	Bus	MW Impact
274650	KINCAID ;1U	17.25
274651	KINCAID ;2U	17.28
274853	TWINGROVE;U1	2.5
274854	TWINGROVE;U2	2.5
274863	CAYUGA RI;1U	2.82
274864	CAYUGA RI;2U	2.82
900404	X3-028 C	84.69
905081	W4-005 C	2.39
917501	Z2-087 C	2.01
924041	AB2-047 C O1	16.06
924261	AB2-070 C O1	7.65
925771	AC1-053 C	7.49
926841	AC1-171 C O1	0.96
930461	AB1-087	31.05
930471	AB1-088	31.05
933441	AC2-157 C	4.29
935001	AD1-133 C O1	90.83
935141	AD1-148	13.51
936771	AD2-100 C O1	28.25
937161	AD2-153 C O1	10.77
937171	AD2-154 C O1	10.77
937211	AD2-159 C	11.3
939401	AE1-172 C O1	35.5
939741	AE1-205 C O1	41.51
940101	AE1-252 C O1	55.08
950701	J196 C	1.14
951001	J339	12.81
951741	J474 C	5.17
952271	J644	13.59
952321	J734	10.76
952651	J756 C	4.83
952871	J757 C	5.78
953241	J467 C	1.82
953401	J811	10.88
953651	J815	37.45
953741	J826 C	3.19
953801	J835 C	3.81
953851	J845 C	3.12
953881	J848 C	5.76
954081	J872 C	4.43

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Bus #	Bus	MW Impact
954181	J884	26.75
954411	J912	14.21
954721	J750 C	3.62
AD2-098	AD2-098	0.36
AE1-042	AE1-042	6.61
CBM-N	CBM-N	0.57
CBM-S1	CBM-S1	11.07
CBM-S2	CBM-S2	3.34
CBM-W2	CBM-W2	129.48
CIN	CIN	11.59
CPLE	CPLE	1.17
DEARBORN	DEARBORN	0.85
G-007A	G-007A	1.93
IPL	IPL	6.27
LGEE	LGEE	1.7
MEC	MEC	9.12
NYISO	NYISO	2.48
O-066A	O-066A	0.9
VFT	VFT	5.19

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MISO

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

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Contingency Name	Contingency Definition
COMED_P4_BRO-45-BT2-3_FSA	CONTINGENCY 'COMED_P4_BRO-45-BT2-3_FSA' TRIP BRANCH FROM BUS 937160 TO BUS 348847 CKT 1 / AD2-153 TAP 345 7BROKAW T1 345 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 348847 TO BUS 348848 CKT 2 / 7BROKAW T1 345 4BROKAW 138 END
COMED_P4_080-45-BT7-8_FSA	CONTINGENCY 'COMED_P4_080-45-BT7-8_FSA' TRIP BRANCH FROM BUS 270853 TO BUS 917500 CKT 1 / PONTIAC ; R 345 Z2-087 TAP 345 TRIP BRANCH FROM BUS 270853 TO BUS 935000 CKT 1 / PONTIAC ; R 345 AD1-133 TAP 345 /* CONTINGENCY LINE ADDED FOR AE1 BUILD END
COMED_P1-2_345-L11212_B-S-A	CONTINGENCY 'COMED_P1-2_345-L11212_B-S-A' TRIP BRANCH FROM BUS 270926 TO BUS 937030 CKT 1 / WILTO; B 345 AD2-137 TAP 345 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_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_P1-2_345-L8002___-S	CONTINGENCY 'COMED_P1-2_345-L8002___-S' TRIP BRANCH FROM BUS 270852 TO BUS 270668 CKT 1 / PONTI; B 345 BLUEM; B 345 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_P1-2_345-L11212_B-S-C-A	CONTINGENCY 'COMED_P1-2_345-L11212_B-S-C-A' TRIP BRANCH FROM BUS 934720 TO BUS 939400 CKT 1 / AD1-100 TAP 345 AE1-172 TAP 345 END
COMED_P4_080-45-BT8-13_FSA	CONTINGENCY 'COMED_P4_080-45-BT8-13_FSA' TRIP BRANCH FROM BUS 270853 TO BUS 917500 CKT 1 / PONTIAC ; R 345 Z2-087 TAP 345 TRIP BRANCH FROM BUS 917500 TO BUS 924040 CKT 1 / Z2-087 TAP 345 AB2-047 TAP 345 /* CONTINGENCY LINE ADDED FOR AE1 BUILD TRIP BRANCH FROM BUS 272260 TO BUS 270852 TO BUS 275356 CKT 1 / PONTI; B 138 PONTI; B 345 PONTI;1C 34.5 CLOSE BRANCH FROM BUS 272260 TO BUS 272261 CKT 1 / PONTI; B 138 PONTI; R 138 END

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COMED_P1-2_345-L11212_B-S-C-B	CONTINGENCY 'COMED_P1-2_345-L11212_B-S-C-B' TRIP BRANCH FROM BUS 939400 TO BUS 270704 CKT 1 / AE1-172 TAP 345 LORET; B 345 END
COMED_P7_345-L2001__B-S_+_345-L2003__R-S	CONTINGENCY 'COMED_P7_345-L2001__B-S_+_345-L2003__R-S' TRIP BRANCH FROM BUS 270670 TO BUS 270728 CKT 1 / BRAID; B 345 E FRA; B 345 TRIP BRANCH FROM BUS 270728 TO BUS 270766 CKT 1 / E FRA; B 345 GOODI;3B 345 TRIP BRANCH FROM BUS 270728 TO BUS 274750 CKT 1 / E FRA; B 345 CRETE;BP 345 TRIP BRANCH FROM BUS 270671 TO BUS 270729 CKT 1 / BRAID; R 345 E FRA; R 345 END
COMED_P1-2_345-L8014___-S-A	CONTINGENCY 'COMED_P1-2_345-L8014___-S-A' TRIP BRANCH FROM BUS 270853 TO BUS 935000 CKT 1 / PONTIAC ; R 345 AD1-133 TAP 345 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_P1-2_345-L8014___-S-B	CONTINGENCY 'COMED_P1-2_345-L8014___-S-B' TRIP BRANCH FROM BUS 935000 TO BUS 270717 CKT 1 / AD1-133 TAP 345 DRESDEN ; R 345 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_BRO-45-BT3-4_FSA	CONTINGENCY 'COMED_P4_BRO-45-BT3-4_FSA' TRIP BRANCH FROM BUS 937160 TO BUS 348847 CKT 1 / AD2-153 TAP 345 7BROKAW T1 345 TRIP BRANCH FROM BUS 348847 TO BUS 348846 CKT 1 / 7BROKAW T1 345 7CLINTON 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
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_P7_345-L17704AR-S_+_345-L17907TB-S-A	CONTINGENCY 'COMED_P7_345-L17704AR-S_+_345-L17907TB-S-A' TRIP BRANCH FROM BUS 270675 TO BUS 925880 CKT 1 / BURNHAM ;1R 345 AC1-067 TAP 345 TRIP BRANCH FROM BUS 270662 TO BUS 936780 CKT 1 / BLOOM ; B 345 AD2-101 TAP 345

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	TRIP BRANCH FROM BUS 270662 TO BUS 271098 TO BUS 275258 CKT 1 / BLOOM ; B 345 BLOOM ; B 138 BLOOM ;4C 34.5 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
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
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_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

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Short Circuit

No issues identified

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