



S62 Withdrawal Addendum for the November 2013 PJM Queue Affected System Study

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1 Summary

This addendum covers the updated study results for the report entitled 'MISO Affected SIS PJM-Nov13 Final-Addendum' and dated August 5, 2014. Results have been updated to reflect the withdrawal of prior queued PJM generation project S62. In addition to prior queued withdrawals, projects Y1-015, Y1-035 & Y1-036 from the current November 2013 were withdrawn. A sensitivity study has been performed, to determine the impacts of these withdrawals.

Changes were identified in the near-term (2016), for the summer off peak scenario alone. The out year cost allocation remains unchanged for the withdrawal.

Table 1-1 Updated Cost Estimate for Network Upgrades Table 1-1 lists the updated cost estimated for the proposed network upgrades in the study.

Table 1-2 provides the updated per project cost allocation.

Munster – Burnham 345 kV and St John – Crete 345 kV facilities are no longer a constraint in the near term.

Updated near-term (2016) constraints along with their respective upgrades and cost allocations have been documented in section 3 of the report.

Table 1-1 Updated Cost Estimate for Network Upgrades

Monitored Element	Near Term Mitigation Cost	Out Year Mitigation Cost
MUNSTER - BURNHAM 345 kV Line	No longer a constraint.	
LAPORTE – MICHIGAN CITY 138 kV Line	\$2,215,000	
ST JOHN – CRETE 345 kV Line	No longer a constraint.	
NEWCARLISLE – TRAILCREEK 138kV Line		\$1,717,000
MICHIGAN CITY- TRAIL CREEK 138 kV Line	\$668,000	\$918,000
HONEYCREEK – MONTICELLO 69kV Line	\$0	
HONEYCREEK – SEAFIELD 69kV Line	\$0	
Total cost of upgrades	\$2,883,000	\$2,635,000

Table 1-2 Cost Allocation per Project

Project	Project Name	Near Term Cost	Out year Cost
V1-024	LaSalle 1		
V1-025	LaSalle 2		
V4-046	Byron 1		
V4-047	Byron 2		
V4-048	Braidwood 1		
V4-049	Braidwood 2		
W2-048	Pontiac MidPoint – Lanesville 345kV		



Project	Project Name	Near Term Cost	Out year Cost
W3-046	Powerton 345kV – Katydid 345kV		
W4-005	Pontiac Midpoint – Latham 345kV	\$2,883,000	\$2,635,000
X1-096	Loretto-Kings Creek 138kV		
X2-022	Pontiac Midpoint-Lanesville II		
X2-031	Krayn 115kV		
X2-052	Dumont-Olive 345kV		
X3-051	Flatlick 765kV		
X4-020	Peach Bottom-TMI #1 500kV I		
X4-021	Peach Bottom-TMI #2 500kV II		
X4-025	Millbrook Park 138kV		
Y1-030	Forest 69kV		

2 Study Background

The following queued generation projects were modeled in the original November 2013 PJM queue Affected system study completed on August 15, 2014 and have withdrawn from the PJM queue.

PJM Queue #	ProjectName	State	Pmax	Fuel Type	PJM Queue Cycle
S62	LaSalle-Braidwood 345kV	IL	500	Wind	November 2012
Y1-015	Shenango – Hoytdale 345kV	PA	1000	natural gas	November 2013
Y1-035	Eastlake 138kV	OH	462	natural gas	November 2013
Y1-036	Eastlake 345kV	OH	462	natural gas	November 2013

Due to the withdrawal of these generation project, a sensitivity study has been performed, to determine the impacts.



3 Steady State Analysis

3.1 Near Term (2016) Analysis

Table 3-1 Updated Near-Term Constraints

Monitored Element	Cont Flow (MVA)	Rating (MVA)	Loading %	Contingency	Contingency Category	Constraint criteria	%MW Impact
LAPORTE – MICHIGAN CITY 138 kV Line	170	156	109	AEPCE_DUMWIL	Cat B2	NIPS Facility Impact	3.10%
MICHIGAN CITY- TRAIL CREEK 138 kV Line	164	156	106	AEPCE_DUMWIL	Cat B2	NIPS Facility Impact	3.10%
HONEYCREEK – MONTICELLO 69kV Line	74.3	41	181	255129 17GOODLAND 138 255173 17REYNOLDS 138 1	Cat B2	NIPS Facility Impact	3.17%
HONEYCREEK – SEAFIELD 69kV Line	75.9	41	185.1	255129 17GOODLAND 138 255173 17REYNOLDS 138 1	Cat B2	NIPS Facility Impact	3.17%

Table 3-2 Updated Near-Term Network Upgrades

Monitored Element	Constraint	Mitigation	Planning Level Estimate	Queue Projects with Impacts
LAPORTE – MICHIGAN CITY 138 kV Line	Sag limit	Remove Sag Limit	\$2,215,000	W4-005
MUNSTER - BURNHAM 345 kV Line	No longer a constraint.	None proposed.		
ST JOHN – CRETE 345 kV Line	No longer a constraint.	None proposed.		
MICHIGAN CITY- TRAIL CREEK 138 kV Line	Sag limit	Remove Sag Limit	\$668,000	W4-005
HONEYCREEK – MONTICELLO 69kV Line	Conductor Limit.	Wind Transmission User Agreement upgrade under construction. Post upgrade rating can accommodate flow	\$0	W4-005
HONEYCREEK – SEAFIELD 69kV Line	Conductor Limit.	Wind Transmission User Agreement upgrade under construction. Post upgrade rating can accommodate flow	\$0	W4-005



Table 3-3 Updated Near-Term Cost Allocation

Monitored Element	Cost of Upgrade	V1-024	V1-025	V4-046	V4-047	V4-048	V4-049	W2-048	W3-046	W4-005	X2-022
ST JOHN – CRETE 345 kV Line	No longer a constraint.										
MUNSTER - BURNHAM 345 kV Line	No longer a constraint.										
LAPORTE – MICHIGAN CITY 138 kV Line	\$2,215,000									\$2,215,000	
MICHIGAN CITY- TRAIL CREEK 138 kV Line	\$668,000									\$668,000	
Total cost	\$2,883,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,883,000	\$0



Appendix A PJM Higher Queued Projects

A.1 PJM November 2012 Cycle

PJM Queue #	ProjectName	State	MISO SH Output	MISO SPK Output	Fuel Type
Q39	Kewanee 138kV	IL	105	21	wind
Q49	Dresden 345kV	IL	45	45	nuclear
Q50	Dresden 345kV	IL	58	58	nuclear
Q51	Quad City 345kV	IL	30	30	nuclear
Q57	Steward-Waterman 138kV	IL	22	4.4	wind
R16	Lena 138kV	IL	126	25.2	wind
R30	Pontiac Mid-Point 345kV	IL	500	100	wind
R33	Nelson 345kV	IL	0	600	natural gas
S27	Blue Mound I	IL	198	39.6	wind
S28	Blue Mound II	IL	198	39.6	wind
S36	Kankakee 138kV	IL	175	35	wind
S37	Kankakee 138kV	IL	175	35	wind
S55	Zion 345kV	IL	0	510	natural gas
S57	Hvdc	IL	3500	1192	HVDC
U1-054	Calumet	IL	0	54	natural gas
U3-031	Lincoln Generating Facility	IL	0	40	natural gas
U4-033	University Park North	IL	0	36	natural gas
05MLCS	Meadow Lake	IL	600	120	wind
Q01, Q03	Fowler Ridge	IN	750	150	wind



A.2 PJM May 2013 Cycle

PJM Queue	PJM POI	State	MISO SH Output	MISO SPK Output	Fuel
T130	Convoy – East Lima 345kV	OH	300	60	wind
T131	Lincoln – Sterling 138kV	OH	150	30	wind
T142	Southwest Lima – Marysville 345kV	OH	300	60	wind
T143	Hennepin 138kV	IL	250	50	wind
T148	Caledonia Wind II 100 MW	IL	100	20	wind
T94	Cook – Palesades 345kV	MI	0	1035	natural gas
T99	Caledonia Wind 100 MW	IL	100	20	wind
U2-028A_AT1	Ironville 138kV	OH	135	135	other
U2-072	East Lima – Marysville 345kV	OH	300	60	wind
U3-021	Silver Lake – Cherry Valley 345kV	IL	0	100	natural gas
U4-027	Normandy-Kewanee 138kV	IL	0	100	natural gas
V1-011	Haviland 138kV	OH	100	20	wind
V1-012	Haviland 138kV	OH	150	30	wind
V2-006	East Leipsic 138kV	OH	150	30	wind
V3-007	Desoto-Tanners Creek #1 345kV	IN	200	40	wind
V3-008	Desoto-Tanners Creek #1 345kV	IN	200	40	wind
V3-009	Desoto-Tanners Creek #1 345kV	IN	200	40	wind
V4-010	Tiffin Center 138kV	OH	200	40	wind
V4-015	Fostoria Central 138kV	OH	66.6	13.32	wind
V4-016	Valley 138kV	MI	200	40	wind
W1-072A_AT5	Lemoyne 345kV	OH	0	40	natural gas
W2-001	Fostoria Central 138kV	OH	66.6	13.32	wind
W3-059A_At6	Avery – Greenfield 138kV	OH	99	19.8	wind
W3-088	South West Lima 345kV	OH	200	40	wind
W3-128	Sporn – Waterford 345kV	OH	0	652	natural gas
W3-170	Buckskin 69kV	OH	0	12	solar
X1-027A_AT12	Davis Besse – Beaver 345kV	OH	500	100	wind
Y1-006	Jubal Early – Austinville 138kV	VA	72	14.4	wind
Y1-069	Bay Shore – Fostoria Central 345kV	OH	0	799	natural gas