

The lists on the following two tabs are sorted by the sum of the absolute values of the shadow prices. This number can be thought of as an indicator of the severity of the constraints. This is NOT the total congestion or total redispatch cost values of a constraint, it IS the amount of money that would have been saved over the course of this time period had the rating on the constrained facility been just one MW higher. By taking the absolute value, both directions of the constraint are captured (there are a few constraints in ATC that have been bound in different directions at different times).

The "hours" measurements provided on the table is a measure of frequency, not duration. The number given is the number of separate hours in which the constraint occurred, whether it was bound for the entire hour or just one five minute interval.

Day Ahead (DA) constraints indicate that MISO committed generation out of economic order in the Day Ahead market, meaning that more expensive generation is committed to run in order to avoid real time constraints. **Real Time (RT)** constraints show up when MISO did not anticipate the overloads on the system in the Day Ahead. The shadow prices are defined the same way for both types of constraints.

Day Ahead (DA) constraints and Real Time (RT) constraints have been combined for this report. While this is not technically an "apples-to-apples" comparison, the combined numbers do indicate which constraints occur most often and have the greatest financial impact on the bulk electric system.

Potential solutions have been provided for some constraints listed. These solutions may not have been designed for the sole purpose of alleviating the listed constraints and therefore will not necessarily fully mitigate the constraints, but will reduce the constraint's frequency and severity under normal operating conditions.

#	Number of hours in which this constraint occurred	Constraint	Potential Solution	Sum of Abs. Values of Shadow Prices
13,938		Total for all ATC combined market constraints - 2007	Solutions listed in ATC TYA unless otherwise noted	\$959,315.95
1	882	Ellington - Hintz 138 kV flo North Appleton - Werner West 345 kV	Increased line clearance (Completed August 2007) Weston Unit 4 (expected 2008)* e-to-w ¹ Morgan - Highway 22 - Gardner Park (Planned 2009)	\$148,037.56
2	2,336	Paddock 345/138 kV Transformer T21 flo Wempleteown - Rockdale 345 kV	Paddock - Rockdale 345 kV (Proposed 2010)	\$130,003.63
3	1,971	Eau Claire - Arpin 345 kV	Weston Unit 4 (expected 2008)* Arrowhead - Gardner Park 345 kV (Completed 2008)	\$114,846.10
4	360	Pleasant Valley - Arthur Road 138 kV flo Saukville - Barton 138 kV	Reconductor Saukville - Pl. Valley - Arthur Rd. - St. Lawrence 138 kV (Planned 2008)	\$57,458.31
5	671	Hintz - Werner 138 kV flo North Appleton - Werner West 345 kV	Terminal equipment replacement (Completed August 2007) Weston Unit 4 (expected 2008)* e-to-w ¹ Morgan - Highway 22 - Gardner Park (Planned 2009)	\$53,586.82
6	782	Highway V - Preble 138 kV flo Lost Dauphin - Red Maple 138 kV	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009)	\$40,441.09
7	565	Stiles - Pulliam 138 kV (64451) flo Stiles - Pulliam 138 kV (64441)	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009)	\$31,641.07
8	672	Stiles - Pulliam 138 kV (64441) flo Stiles - Pulliam 138 kV (64451)	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009)	\$26,434.53
9	124	Badger - Belle Plaine - Caroline - Whitcomb 115 kV flo North Appleton - Werner West 345 kV	Weston Unit 4 (expected 2008)* e-to-w ¹ Gardner Park - Highway 22 - Morgan 345 kV (Planned 2009)	\$26,030.54
10	105	Blount - Ruskin 69 kV (6904) flo Blount - Ruskin 69 kV (6903)	Special Protection System (SPS) on each Blount-Ruskin ckt (Expected 2008)* North Madison - Huiskamp 138 kV line (Planned 2009)	\$24,772.01
11	162	Pleasant Prairie - Racine 345 kV flo Pleasant Prairie - Arcadian 345 kV	Elm Rd. Phase 1 (Expected 2009)* Elm Rd. Phase 2 (Expected 2010)*	\$20,408.23
12	90	Gardner Park - Stone Lake 345 kV	Arrowhead - Gardner Park 345 kV (Completed January 2008)	\$16,793.12
13	106	McGulpin - Straits 138 kV ckt 1	Upper Peninsula Energy Collaborative investigating potential solutions (2008)*	\$14,390.69
14	326	North Appleton - Werner West - Rocky Run 345 kV	Weston Unit 4 (expected 2008)* e-to-w ¹ Morgan - Highway 22 - Gardner Park (Planned 2009) e-to-w ¹	\$13,171.41
15	116	Lakeview - Zion 138 kV flo Pleasant Prairie - Zion 345 kV	Operating Guide (Implemented July 2007)*	\$11,671.92
16	261	North Appleton - Werner West 345 kV	Weston Unit 4 (expected 2008)* e-to-w ¹ Morgan - Highway 22 - Gardner Park (Planned 2009) e-to-w ¹	\$10,732.97
17	40	Felch - Cornell - Chandler 69 kV flo Chandler 138/69 kV Transformer T1	Upgrade Cornell - Chandler 69 kV line (Proposed, 2009)	\$9,518.01
18	10	Sand Lake - Port Edwards 138 kV flo North Appleton - Werner West 345 kV		\$8,640.29
19	292	Stiles - Pulliam 138 kV (64451) flo Morgan - White Clay 138 kV	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009)	\$8,573.31
20	9	Kenosha - Lakeview 138 kV flo Pleasant Prairie - Zion 345 kV	Operating Guide (Implemented July 2007)*	\$7,637.97
21	40	Casaloma - Butte des Morts 138 kV flo North Appleton - Werner West 345 kV	Constraint driven by construction outages - no solution identified.	\$7,365.84
22	448	Old Quinn Transformer 5	No solution - virtual activity causing congestion	\$7,073.46
23	19	Indian Lake 138/69 kV Transformer 2 flo Indian Lake 138/69 kV Transformer 1	Upper Peninsula Energy Collaborative investigating potential solutions (2008)*	\$6,493.52
24	400	Detour Transformer T2	No solution - virtual activity causing congestion	\$5,603.01
25	334	Old Quinn Transformer 4	No solution - virtual activity causing congestion	\$5,534.23

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26	Oak Creek Unit #9 GSU	No solution - virtual activity causing congestion	\$5,354.85
27	McGulpin - Straits 138 kV ckt 3 flo McGulpin - Straits 138 kV ckt 1	Upper Peninsula Energy Collaborative investigating potential solutions (2008)*	\$5,275.19
28	Morrison Avenue - Sherman Street 115 kV flo Weston - Sherman Street 115 kV	Gardner Park - Hilltop 115 kV (Completed 2007) Weston - Sherman St. - Hilltop 115 kV rebuild (Completed 2007)	\$4,857.59
29	Pulliam - Oak Street 69 kV flo Pulliam 138/69 kV Transformer	Retirement of Pulliam Units 3 and 4 (January 2008)*	\$4,826.30
30	Portage - Trienda 138 kV (X-19) flo Portage - Trienda 138 kV (X-67)	Upate of Portage - Trienda 138 kV ckt X-19 (Planned 2008)	\$4,619.27
31	Flow South PTDF	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009) Cranberry - Conover - Plains 138 kV line (Planned 2010)	\$4,512.03
32	New Quinnesec - Kingsford 69 kV	No solution - virtual activity causing congestion	\$3,961.90
33	Elkhart Lake - Forest Junction 138 kV flo Edgewater - Saukville 345 kV		\$3,918.79
34	Bluemound 230/138 Transformer 2 flo Bluemound 230/138 Transformer 1		\$3,799.18
35	Minnesota / Wisconsin Stability Interface (MWSI) PTDF	Arrowhead - Gardner Park 345 kV (Completed 2008)	\$3,399.74
36	Whitcomb 115/69 Transformer flo North Appleton - Werner West 345 kV		\$3,290.97
37	Darlington - Rock Branch 69 kV flo Wempletown - Rockdale 345 kV		\$3,237.74
38	Indian Lake 138/69 kV Transformer 1 flo Indian Lake 138/69 kV Transformer 2		\$3,106.27
39	Badger - Belle Plaine - Caroline - Whitcomb 115 kV flo Werner West - Rocky Run 345 kV	Weston Unit 4 (expected 2008)* e-to-w ¹ Gardner Park - Highway 22 - Morgan 345 kV (Planned 2009)	\$2,881.91
40	Minnesota / Wisconsin Stability Interface (MWSI)	Arrowhead - Gardner Park 345 kV (Completed 2008)	\$2,846.84
41	Sand Lake - Port Edwards 138 kV flo King - Eau Claire - Arpin 345 kV + Op. Guide		\$2,766.72
42	Arcadian - Waukesha 138 kV flo Arcadian - Granville 345 kV		\$2,724.29
43	North Appleton - Rocky Run 345 kV	Weston Unit 4 (expected 2008)* e-to-w ¹ Morgan - Highway 22 - Gardner Park (Planned 2009) e-to-w ¹	\$2,643.00
44	Werner - Werner West 138 kV flo North Appleton - Werner West 345 kV	Terminal equipment replacement (Completed August 2007) Weston Unit 4 (expected 2008)* e-to-w ¹ Morgan - Highway 22 - Gardner Park (Planned 2009)	\$2,608.33
45	Pleasant Prairie - Zion 345 kV flo Cherry Valley - Silver Lake 345 kV (ComEd)		\$2,429.29
46	Badger - Belle Plaine - Caroline - Whitcomb 115kV flo North Appleton - Rocky Run 345 kV	Weston Unit 4 (expected 2008)* e-to-w ¹ Gardner Park - Highway 22 - Morgan 345 kV (Planned 2009)	\$2,413.51
47	Wien - T_Corners 115 kV		\$2,341.91
48	Rockdale 345/138 kV Transformer 22 flo Rockdale 345/138 kV Transformer 23	Rockdale - West Middleton 345 kV (Proposed 2011)	\$2,320.72
49	Ramsey - Harbor 138 kV flo Kansas - Norwich 138 kV		\$2,301.58
50	McGulpin - Straits 138 kV ckt 1 flo McGulpin - Straits 138 kV ckt 3	Upper Peninsula Energy Collaborative investigating potential solutions (2008)*	\$2,172.89
51	Dewey (CW8) - Northpoint 115 kV flo Eau Claire - Arpin 345 kV + Op. Guide		\$1,933.37
52	Manistique Transformer T1	No solution - virtual activity causing congestion	\$1,837.24
53	Straits - Evergreen 69 kV flo Straits - Hiawatha 138 kV Transformer + Hiawatha 138/69 kV Transformer		\$1,823.75
54	Cornell - Range Line 138 kV (61443) flo Pleasant Prairie - Racine 345 kV		\$1,801.21
55	Tower Drive - Preble 138 kV flo Lost Dauphin - Red Maple 138 kV		\$1,794.11
56	Darlington - North Monroe 138 kV flo Wempletown - Paddock 345 kV		\$1,767.74
57	North Appleton - Mason Street 138 kV flo North Appleton - White Clay 138 kV		\$1,745.97
58	Council Creek 138/69 kV Transformer 31 flo Werner West - Rocky Run 345 kV	Monroe County - Coucil Creek 161 kV line (Provisional, 2012)	\$1,704.53

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59	74	Flow North PTDF		\$1,702.62
60	63	SE Wisconsin Interface (Pleasant Prairie - Zion 345 kV & Arcadian - Zion 345 kV & Lakeview - Zion 138 kV)		\$1,696.54
61	37	North Appleton - Fox Energy 345 kV flo North Appleton - Kewaunee 345 kV		\$1,649.67
62	11	Bain 345/138 kV Transformer T5 flo Pleasant Prairie - Zion 345 kV		\$1,631.58
63	5	Arcadian 345/138 kV Transformer 3 flo Arcadian 345/138 kV Transformer 1		\$1,551.02
64	9	Elkhart Lake - Forest Junction 138 kV flo Arcadian - Forest Junction 345 kV		\$1,523.07
65	44	Winona - M38 138 kV flo Plains 345/138 kV Transformer 1		\$1,455.30
66	7	Rockdale 345/138 kV Transformer T22 flo Rockdale 345/138 kV Transformer T23	Rockdale - West Middleton 345 kV (Proposed 2011)	\$1,431.71
67	35	North Appleton - Mason Street 138 kV flo Highway V - Tower Dr 138 kV		\$1,419.58
68	4	Whitcomb 115/69 Transformer flo Werner West - Rocky Run 345 kV		\$1,349.63
69	57	Perch Lake - Nordic 138 kV flo Empire - Forsyth 138 kV		\$1,301.12
70	20	Depere - Glory Road 138 kV flo Highway V - Tower Drive 138 kV		\$1,280.68
71	33	Winona - Ontonagon 138 kV flo Victoria - Mass 69 kV		\$1,183.03
72	10	Pleasant Valley - Arthur Road 138 kV flo Rockdale - Jefferson 138 kV	Reconductor Saukville - Pl. Valley - Arthur Rd. - St. Lawrence 138 kV (Planned 2008)	\$1,144.52
73	8	Saukville - Pleasant Valley 138 kV flo Saukville - Barton 138 kV		\$1,112.40
74	4	Academy - Columbus 69 kV flo North Randolph - North Beaver Dam 138 kV		\$1,097.26
75	34	University - Whitewater 138 kV		\$1,071.32
76	9	Hemlock Falls Transformer 1	No solution - virtual activity causing congestion	\$1,008.40
77	13	Bluemound 230/138 Transformer 2 flo Oak Creek 345/230 kV Transformer 895 & Oak Creek Bus 9		\$992.04
78	54	West Marinette 138/69 kV Transformer T1 flo Roosevelt Road 138/69 kV Transformer T3		\$959.52
79	2	Kewaunee 345/138 kV Transformer T10 flo Point Beach - Forest Junction 345 kV		\$952.14
80	11	Badger 138/115 kV Transformer T1 flo Werner West - Rocky Run 345 kV		\$945.53
81	24	Presque Isle - Perch Lake 138 kV flo Dead River - Plains 345 kV		\$930.86
82	13	Highway V - Preble 138 kV flo DePere - Glory Road 138 kV	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009)	\$865.66
83	6	Rocky Run - North Point 115 kV flo Rocky Run - Gardner Park 345 kV		\$859.73
84	2	Nordic - Felch Tap 69 kV		\$834.98
85	5	Saukville - Edgewater 345 kV flo Arcadian - Forest Junction 345 kV		\$817.74
86	9	Badger 138/115 kV Transformer T1		\$810.61
87	5	Paris - St. Martin 138 kV flo Pleasant Prairie - Racine 345 kV		\$769.87
88	3	Kilbourn 138/69 kV Transformer 32 flo Kilbourn 138/69 kV Transformer 31		\$767.04
89	14	Bunker Hill - Blackbrook 115 kV flo Gardner Park - Kelly 115 kV		\$729.07
90	11	Point Beach - Forest Junction 345 kV flo Point Beach - Fox River 345 kV		\$683.14
91	9	North Appleton - Lost Dauphin 138 kV flo Kewaunee 345/138 kV Transformer T10		\$668.54
92	16	Blount - Gateway 69 kV flo Sycamore - Blount 138 kV		\$661.91
93	8	Kenosha - Albers 138 kV flo Albers - Bain 138 kV		\$624.57
94	4	Enzyme Bio Systems - RCEC Clinton 69 kV flo Colley Road - Brick Church 138 kV		\$618.60
95	16	Petenwell - Saratoga 138 kV flo Rocky Run - North Appleton 345 kV		\$562.95
96	12	Weston - Sherman Street 115 kV flo Arpin - Rocky Run 345 kV + Op. Guide		\$519.36
97	4	Pulliam 138/69 kV Transformer 16 flo Highway V - Tower Drive 138 kV		\$504.20
98	4	Forest Junction - Arcadian 345 kV flo Sheboygan Falls - Granville 345 kV		\$501.79
99	45	Dewey (CW8) - Weston 115 kV flo Eau Claire - Arpin 345 kV + Op. Guide		\$471.71

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100	8	University - Whitewater 138 kV flo Operator Defined Contingency	\$437.51
101	2	Brooks Corner - Deer Trail 69 kV flo Werner West - Rocky Run 345 kV	\$427.41
102	9	Bluemound - Butler 138 kV (5051) flo Arcadian - Granville 345 kV + Cornell 138 kV CB 1-2	\$394.88
103	1	Badger 138/115 kV Transformer T1 flo North Appleton - Werner West 345 kV	\$378.78
104	1	Arpin - Sigel 138 kV flo Arpin - Rocky Run 345 kV + Op. Guide	\$377.08
105	2	North Appleton - Mason Street 138 kV flo Lost Dauphin - Red Maple 138 kV	\$341.03
106	3	Oakdale - Council Creek 69 kV flo King - Eau Claire - Arpin 345 kV & Eau Claire T9	\$337.33
107	25	University - Whitewater 138 kV flo University - Sugar Creek 138 kV	\$334.32
108	2	Darlington - Rock Branch 69 kV flo Nelson Dewey 161/138 kV Transformer T91	\$331.97
109	6	Kelly - Whitcomb 115 kV flo Rocky Run - North Appleton 345 kV	\$327.55
110	7	Town Line Road - Paddock 138 kV flo Paddock - Blackhawk 138 kV	\$311.52
111	1	Deforest - Arlington 69 kV flo Kegonsa - Femrite 138 kV	\$281.46
112	3	Brooks Corner - Deer Trail 69 kV flo Rocky Run - Gardner Park 345 kV	\$276.30
113	6	Winona - M38 138 kV	\$264.04
114	5	Pleasant Prairie - Zion 345 kV	\$252.47
115	6	Appleton Paper - Combined Locks 138 kV	No solution - virtual activity causing congestion \$248.22
116	3	Lakeview - Zion 138 kV flo Zion - Pleasant Prairie 345 kV	Operating Guide (Implemented July 2007)* \$244.86
117	4	Ramsey - Harbor 138 kV flo Arcadian - Granville 345 kV	\$237.30
118	19	Morgan-White Clay 138 kV flo Stiles-Pulliam 138 kV (64441)	\$233.43
119	2	Hiawatha 138/69 kV Transformer 1 flo Straits 138/69 kV Transformer 1	\$224.89
120	12	Kilbourn 138/69 kV Transformer 31 flo Eau Claire - Arpin 345 kV + Op. Guide	\$223.20
121	8	Forest Junction - Fox River 345 kV flo Point Beach - Forest Junction 345 kV	\$219.76
122	2	Bain - Albers 138 kV flo Pleasant Prairie - Racine 345 kV	\$216.66
123	2	Kelly - Whitcomb 115 kV flo Rocky Run - Gardner Park 345 kV	\$215.18
124	2	Racine - Elm Road 345 kV flo Pleasant Prairie - Arcadian 345 kV	\$210.86
125	2	Point Beach - Sheboygan Falls 345 kV flo Edgewater - Saukville 345 kV	\$201.05
126	4	Southeast Wisconsin Interface	\$182.84
127	1	Columbia 345/138 kV Transformer T21 flo Columbia 345/138 kV Transformer T22	\$181.83
128	2	Oak Creek 230/138 kV Transformer 851 flo Elm Road 345/230 kV Transformer 895	\$180.97
129	1	Sand Lake - Port Edwards 138 kV flo Werner West - Rocky Run 345 kV	\$178.93
130	8	Elm Rd 345/230 kV Transformer 884 flo Oak Creek - Bluemound 230 kV	\$164.94
131	1	North Fond Du Lac - Aviation 138 kV flo Fitzgerald 345/138 kV Transformer T1	\$163.88
132	1	Wempletown - Paddock 345 kV & Wempletown - Rockdale 345 kV (Interface)	\$161.65
133	8	Gardner Park - Black Brook 115 kV flo Gardner Park - Kelly 115 kV	\$161.08
134	1	Highway V - Preble 138 kV flo North Appleton - White Clay 138 kV	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009) \$160.34
135	7	SW Wisconsin Interface (Wempletown - Paddock 345 kV & Wempletown - Rockdale 345 kV)	\$160.27
136	1	Kelly - Bunker Hill 115 kV flo Maine - Pine 115 kV	\$151.95
137	2	Council Creek 138/69 kV Transformer 31	Monroe County - Coucil Creek 161 kV line (Provisional, 2012) \$148.86
138	2	Rocky Run 345/115 kV Transformer 1 flo Rocky Run - Gardner Park 345 kV	\$147.06
139	1	Weston - Sherman Street 115 kV	\$144.21
140	1	Kelly - Whitcomb 115 kV flo Werner West - Rocky Run 345 kV	\$140.39

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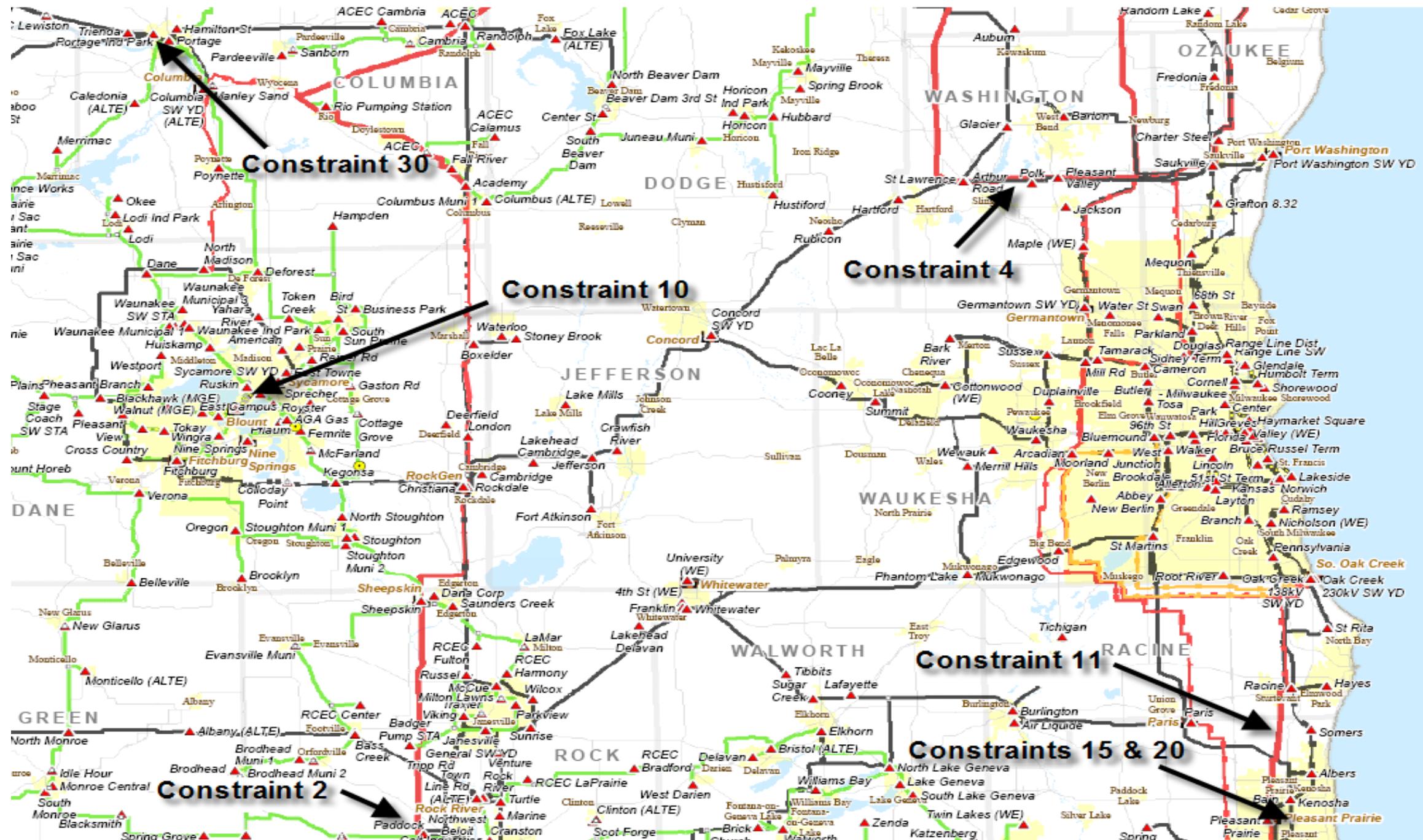
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141	6	Morgan - White Clay 138 kV flo Stiles - Pulliam 138 kV (64441)		\$112.12
142	4	Rockland Junction - Victoria Hydro 69 kV		\$109.31
143	9	Pleasant Prairie - Zion 345 kV flo Zion - Arcadian 345 kV		\$98.30
144	2	Flow South	Morgan - Highway 22 - Werner West 345 kV line (Planned 2009) Cranberry - Conover - Plains 138 kV line (Planned 2010)	\$94.55
145	4	Barton - Glacier 138 kV flo Summit - Cooney 138 kV		\$92.88
146	3	Kilbourn 138/69 kV Transformer 31		\$92.77
147	1	Rocky Run 345/115 kV Transformer T1 flo Rocky Run 345/115 kV Transformer T2		\$90.76
148	4	Tecumsah Road 138/69 kV Transformer 1 flo Forest Junction - Glenview 138 kV		\$80.24
149	6	Saukville - Pleasant Valley 138 kV flo Summit - Cooney 138 kV		\$76.68
150	2	Cedar - Freeman 138 kV flo Presque Isle - National 138 kV		\$74.49
151	1	Rocky Run 345/115 kV Transformer T1 flo Werner West - Rocky Run 345 kV		\$74.02
152	1	Zion - Arcadian 345 kV flo Zion - Pleasant Prairie 345 kV		\$64.00
153	1	Bloomington - Nelson Dewey 69 kV flo Nelson Dewey - Gran Grae 161 kV		\$59.46
154	2	Bloomington - Nelson Dewey 69 kV flo Nelson Dewey 161/138 kV Transformer T91		\$56.27
155	1	Random Lake - Elkhart Lake 138 kV flo Fitzgerald - North Appleton 345 kV		\$55.29
156	2	Sheepskin - Stoughton 69 kV flo Wempletown - Rockdale 345 kV		\$50.56
157	2	Saukville - Pleasant Valley 138 kV flo St. Lawrence - Barton 138 kV		\$49.96
158	3	Ohmstead - Kettle Moraine 138 kV flo Edgewater - South Fond du Lac 345 kV		\$41.17
159	2	Chandler 138/69 kV Transformer T1 flo Plains - Nordic 138 kV		\$38.44
160	4	Marine - Rock River 138 kV flo Paddock - Blackhawk 138 kV		\$38.07
161	6	Kelly - Bunker Hill 115 kV flo Gardner Park - Blackbrook - Aurora 115 kV		\$34.69
162	1	Cedar - National 138 kV flo Cedar - Tilden 138 kV		\$34.11
163	2	Albers - Paris 138 kV flo Granville 345/138 kV Transformer 3		\$33.04
164	1	Columbia - Manley Sands 69 kV flo Portage - North Randolph 138 kV		\$31.76
165	3	NW Beloit Tap - Paddock 138 kV flo Wempletown - Rockdale 345 kV		\$30.20
166	5	Sherman Street - Hilltop 115 kV flo Gardner Park - Black Brook - Aurora 115 kV		\$29.73
167	1	Kenosha - Racine 138 kV flo Pleasant Prairie - Racine 345 kV		\$28.72
168	3	Ontonagon 138/69 kV Transformer flo Victoria - Mass 69 kV		\$26.04
169	1	Arcadian - Waukesha 138 (9942) flo Arcadian - Waukesha 138 (9962)		\$21.25
170	2	Kettle Moraine - Mullet River 138 kV flo Edgewater - South Fond du Lac 345 kV		\$20.19
171	3	Point Beach - Sheboygan Falls 345 kV flo Arcadian - Forest Junction 345 kV		\$14.95
172	1	Forest Junction - Arcadian 345 kV flo Edgewater - Saukville 345 kV		\$14.67
173	1	Morrison Avenue - Weston 115 kV flo Weston - Rocky Run 345 kV	Gardner Park - Hilltop 115 kV (Completed 2007) Weston - Sherman St. - Hilltop 115 kV rebuild (Completed 2007)	\$13.89
174	1	Presque Isle - Cedar 138 kV flo Presque Isle - Freeman 138 kV		\$10.11
175	1	Colley Road - Marine 138 kV flo Paddock - Blackhawk 138 kV		\$2.79
176	1	M-38 - Perch Lake 138 kV		\$2.78
177	1	Wien - T_Corners 115 kV flo Eau Claire - Arpin 345 kV + Op. Guide		\$0.08

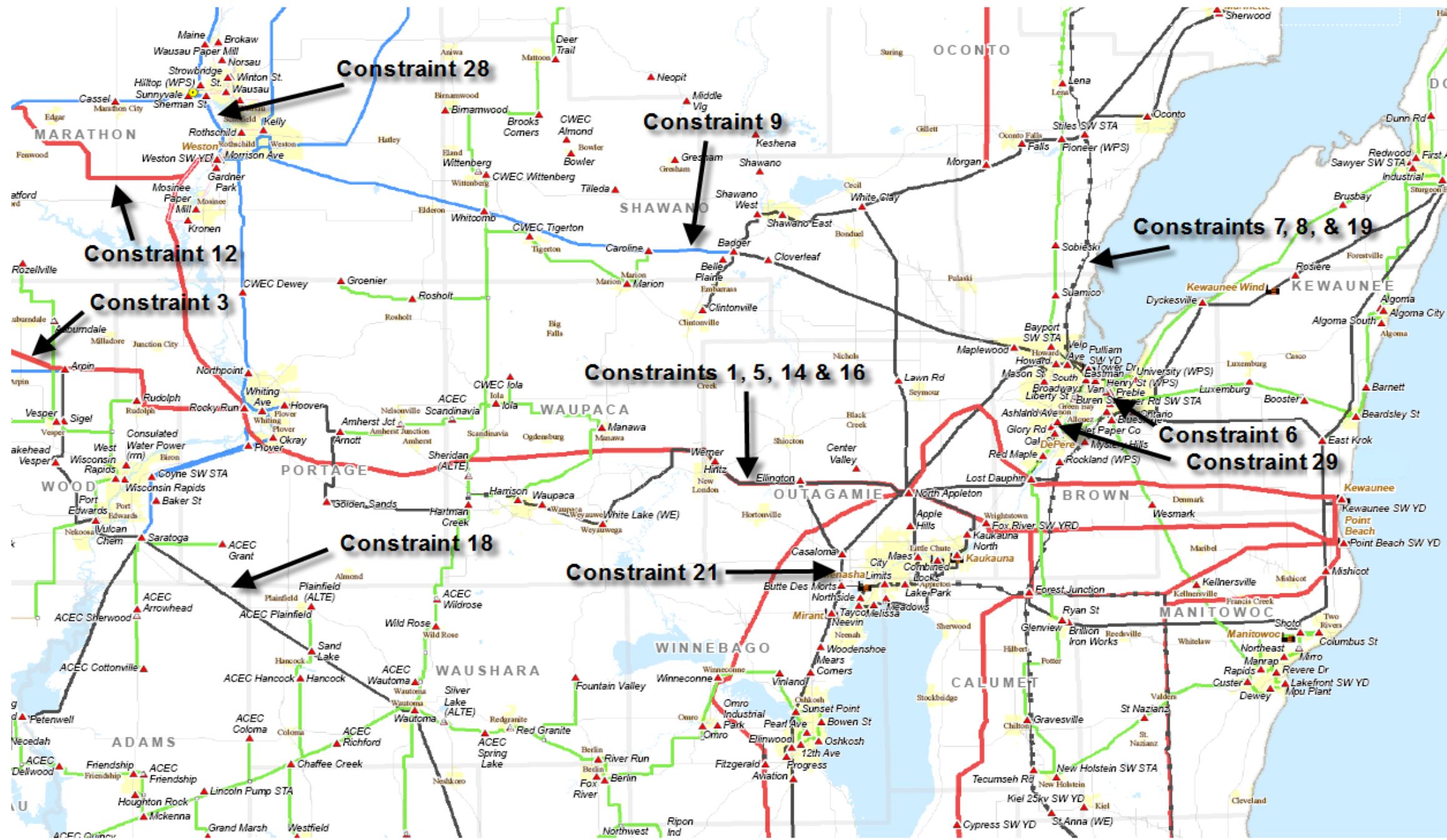
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ATC Market Constraints - Southern Wisconsin



ATC Market Constraints - Northern Wisconsin



ATC Market Constraints - Upper Peninsula

