

Table ZS-6
ATC Real Time Market Most Limiting Elements, 2008

Severity Index	Hours (hits)	Constrained Element	Potential Solution
45.13	376	Paddock 345/138 kV Transformer T21	Paddock - Rockdale 345 kV (Planned 2010)
15.58	133	Point Beach - Sheboygan 345 kV	Point Beach - Sheboygan 345 kV line uprate (Proposed 2010)
13.26	119	Pleasant Prairie - Zion 345 kV	TBD*
11.37	87	Eau Claire - Arpin 345 kV	Arrowhead - Gardner Park 345 kV (Completed 2008) Monroe County-Council Creek 161 kV (Proposed 2012)**
11.06	407	Whitcomb - Caroline 115 kV	Gardner Park - Highway 22 - Morgan 345 kV (Planned 2009)
9.05	71	Ellington - Hintz 138 kV	Gardner Park - Highway 22 - Morgan 345 kV (Planned 2009)
7.30	19	Southeast Wisconsin Interface	TBD*
5.54	30	Stone Lake - Gardner Park 345 kV	Monroe County-Council Creek 161 kV (Proposed 2012)**
4.08	112	Arpin - Sigel 138 kV	Arrowhead - Gardner Park 345 kV (Completed 2008) Monroe County-Council Creek 161 kV (Proposed 2012)**
3.36	26	Rocky Run 345/115 kV Transformer T4	Gardner Park - Highway 22 - Werner West 345 kV (Planned 2009) Monroe County-Council Creek 161 kV (Proposed 2012)
3.36	37	Paddock - Town Line Road 138 kV	Paddock - Rockdale 345 kV (Planned 2010)
3.33	40	Granville - Butler 138 kV	Elm Rd. Phase 1 (Expected 2009)
3.22	131	Badger 138/115 kV Transformer T1	Gardner Park - Highway 22 - Morgan 345 kV (Planned 2009)
3.20	23	Granville 345/138 kV Transformer T1	Install 2nd 345/138 kV transformer at Oak Creek (Planned, 2009)
2.89	11	Minnesota to Wisconsin Exports Interface (MWEX)	Monroe County-Council Creek 161 kV (Proposed 2012)**
179.87	3,101	Total for all ATC Real Time constraints - 2008	

* Additional potential solution being studied as part of 2009 Economic Analysis process: Bain - Zion 345 kV line

** Additional potential solutions being studied as part of 2009 Economic Analysis process: N. LaCrosse - Cardinal 345 kV & Salem - Cardinal 345 kV