

**Table ZS-2  
PERFORMANCE CRITERIA LIMITS EXCEEDED AND OTHER CONSTRAINTS – 2014 Summer Peak without Nelson Dewey, with Nelson Dewey, Shoulder, E-W Bias and High Load Cases**

Planning Zone	Criteria Exceeded/Need	2014 Summer Peak Case Without Nelson Dewey		2014 Summer Peak Case With Nelson Dewey		2014 Shoulder Case		2014 E-W Bias Case		2014 High Load Case		Facility Outage(s)	Project or Mitigation
		% of Facility Rating	% of Nominal Voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage		
1	Fountain Valley, Redgranite, ACEC Spring Lake, Silver Lake 69-kV bus		91.3 - 91.7%		90.7 - 91.7%		--		--		90.0 - 91.1%	Wautoma - Silver Lake Tap 69-kV line	No project needed at this time
1	Dartford, Northwest, Ripon Industrial Park, Ripon, Southwest Ripon 69-kV bus		--		91.9%		--		--		91.0 - 91.8%	Metomen - Ripon 69-kV line Ripon - Northwest Ripon Tap 69-kV line	No project needed at this time
1	Winneconne 69-kV bus		--		--		--		--		91.5%	Sunset Point - Winneconne 69-kV line	No project needed at this time
1	Aurora Street 115-kV bus Antigo 115-kV bus		--		--		--		--		90.4 - 90.5%	Antigo - Black Brook 115-kV line	No project needed at this time
1	Petenwell, Big Pond, Necedah, Whistling Wings, ACEC Dellwood, Friendship, ACEC Friendship, Houghton Rock 69-kV buses		88.1 - 91.7%		87.8 - 91.5%		--		89.3 - 91.9%		87.3 - 91.9%	Petenwell 138/69-kV transformer #31 Petenwell - Big Pond 69-kV line Big Pond - Necedah Tap 69-kV line Necedah Tap - Whistling Wings Tap 69-kV line	McKenna capacitor bank expansion
1	Petenwell, Council Creek 138-kV buses		90.5% - 91.6%		90.3 - 91.4%		--		91.8%		95.4 - 95.6% 90.0 - 91.9%	System Intact Saratoga - Petenwell 138-kV line	Monroe County - Council Creek 161-KV line
1	Caroline 115/69-kV transformer #61	95.5%		--		--		--		101.6%		Whitcomb 115/69-kV transformer #31	No project needed at this time
1	Castle Rock - ACEC Quincy 69-kV line	96.1%		103.0%		--		--		97.5%		Petenwell 138/69-kV transformer #31 Petenwell - Big Pond 69-kV line Big Pond - Necedah Tap 69-kV line	Uprate Castle Rock - McKenna 69-KV line
1	Council Creek - Tomah Industrial Park Tap 69-kV line	97.7%		98.1%		--		--		--		System Intact	No project needed at this time
1	Northwest Ripon - Ripon 69-kV line	--		--		--		--		98.7%		Sunset Point - Winneconne 69-kV line	No project needed at this time
1	Whitcomb 115/69-kV transformer #31	--		--		--		--		96.4%		System Intact	No project needed at this time
1	Metomen 138/69-kV transformer #31	99.0 - 104.0%		103.3% 97.6%				100.8 - 107.4%		109.0%		System Intact North Fond du Lac - Rosendale Tap 69-kV line Metomen - Rosendale Tap 69-kV line North Randolph - Markesan Tap 69-KV line Sunset Point - Winneconne 69-KV line	Metomen transformer replacement

TABLE ZS-2

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Planning Zone	Criteria Exceeded/Need	2014 Summer Peak Case Without Nelson Dewey		2014 Summer Peak Case With Nelson Dewey		2014 Shoulder Case		2014 E-W Bias Case		2014 High Load Case		Facility Outage(s)	Project or Mitigation
		% of Facility Rating	% of Nominal Voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage		
2	DeTour, Goetzville, Talentino, Mich Limestone, Rockview, Magazine, Pickford, Talentino, Talentino 6950 69-kV buses Straits, Brevort, Lakehead, Hiawatha 138-kV buses		86.3 - 91.8%		89.2 - 91.9%		--		Did not converge		Did not converge	Livingston – Emmett 138-kV line	
2	Straits, Brevort, Lakehead, Hiawatha 138-kV buses		90.1 - 92.0%		--		--		Did not converge		Did not converge	Keystone – Ludington 345-kV line	
2	Pine River - Straits 69-kV, Straits-Evergreen 69-kV, Pine River-Evergreen 69-kV lines	--		--		--		96.2 -135.8%		--		Brevort - Lakehead 138-kV Line Lakehead - Hiawatha 138-kV Line Brevort - Straits 138-kV Line Pine River - Evergreen 69-kV Line Evergreen - Strait 69-kV line ATC_B2_9902	Rebuild Straits-Pine River 69 kV lines
2	Straits - McGulpin 138-kV line #3	--		--		--		112.6%		--		Straits - McGulpin 138-kV line #1	Uprate Straits - McGulpin 138-kV line #3
2	Straits - McGulpin 138-kV line #1	--		--		--		112.6%		--		Straits - McGulpin 138-kV line #3	Uprate Straits - McGulpin 138-kV line #1
2	Delta – Mead 69-kV line	100.0 - 157.2%		100.0 - 158.0%		--		112.7 - 141.8%		105.8 - 165.2%		System Intact Chandler - Lakehead Tap 69-kV line Lakehead Tap - Masonville 69-kV line Masonville - Gladstone 69-kV line Gladstone - North Bluff 69-kV line North Bluff - Bay Tap 69-kV line Bay Tap - Mead 69-kV line	Uprate Delta - Mead 69-kV line, increase generation at Mead/Gladstone
2	Chandler – Delta 69-kV #1 line	108.1%		108.1%		117.9%		95.7%		97.9 - 117%		Chandler - Delta 69-kV #2 line, Chandler - Lakehead Tap 69-kV line	Uprate Chandler - Delta 69-kV line #1
2	Chandler – Delta 69-kV #2 line	102.6%		102.4%		112.6%				111.7%		Chandler - Delta 69-kV #1 line	Uprate Chandler-Delta 69-kV line #2
2	Atlantic – M38 69-kV line	117.6 - 118.2%		118.2 - 118.8%		96.3%		116.8%		119.7 - 120.0%		Atlantic - M-38 138-kV line, Atlantic 138/69-kV transformer #1, Both	Uprate Atlantic-M38 69-kV line or increase local generation at Portage
2	Chandler - Lakehead Tap, Lakehead Tap - Masonville, Masonville - Gladstone, Gladstone - North Bluff, North Bluff - Bay Tap, Bay Tap - Mead 69-kV lines	120.2 - 160.5%		120.3 - 160.7%		98.0 - 108.3%		106.8 - 142.6%		128.4 - 171.4%		Delta-Mead 69-kV line	Uprate Chandler-Masonville, Masonville-Gladstone, Gladstone-North Bluff, North Bluff-Mead 69-kV lines; increase generation at Mead/Gladstone
2	Nordic – Mountain 69-kV line	110.8%		--		106.1%		--		119.7%		Chandler 138/69-kV transformer #1	Uprate Nordic-Mountain 69-kV line
2	Ontonagon - UPPSCO Tap 69-kV line	--		--		--		--		105.9% - 106.9%		Victoria - Rockland Junction 2 69-kV, Rockland Junction 2 - Rockland 69-kV, Rockland - Mass 69-kV lines	Uprate Ontonagon - UPPSCO Tap 69-kV line Reduce generation at White Pine Mine/Victoria Hydro
2	New Quinnesec - Kingsford Tap 69-kV line	--		--		--		--		95.2 - 95.3%		Twin Falls North-Twin Falls South Twin Falls South-Bass Lake 69-kV lines	Uprate New Quinnesec -Kingsford Tap 69-kV line
2	WE-Greenstone, Barnum Tap, Barnum Sub, Humboldt Tap, Foundry, North Lake 69-kV buses		--		--		105.0 - 105.6%		--		---	System Intact	Adjust 138/69-kV transformer taps at North Lake

TABLE ZS-2

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Planning Zone	Criteria Exceeded/Need	2014 Summer Peak Case Without Nelson Dewey		2014 Summer Peak Case With Nelson Dewey		2014 Shoulder Case		2014 E-W Bias Case		2014 High Load Case		Facility Outage(s)	Project or Mitigation
		% of Facility Rating	% of Nominal Voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage		
2	Straits, St Ignace, Manistique, Valley, Glen Jenks, Indian Lake, Evergreen 69-kV buses		--		--		105.1 - 105.6%		104.7 - 105.4%		--	System Intact	Adjust 138/69-kV transformer taps at Indian Lake, Hiawatha, and Straits
2	Lakota Rd 115-kV bus		--		--		105.2%		105.0%		--	System Intact	Adjust 138/69-kV transformer taps at Lakota Road
2	Hiawatha, Lakehead, Brevort 138-kV buses		--		--		--		88.8 % - 92.0%		--	Morgan - Highway 22 345-kV line Morgan - Plains 345-kV line Remove Weston Unit 4, Livingston - Vanderbilt 138-kV line Riggsville - Rondo 138-kV line McGulpin - Oden 138-kV line, Remove Kewaunee unit 1, Gallagher - Gallagher Tap, Gallagher - Livingston, Gallagher - Tittabawassee 345-kV lines	Adjust 138/69-kV transformer taps at Hiawatha
2	Atlantic 138-kV bus		--		--		105.8%		--		--	System Intact	Reduce capacitor bank MVAR at Atlantic 69 kV bus
2	Centennial Mine, Centennial Tap, MTU, Osceola, Henry Sub, Henry Tap 69-kV buses		--		--		--		--		90.8 - 91.7%	Atlantic - M38 138-kV line Atlantic 138/69-kV transformer #1	Increase generation at Portage
2	Aspen, Iron Grove 138-kV buses		--		--		--		--		91.0%	Aspen - Plains 138-kV Line	Adjust 138/69-kV transformer taps at Aspen, Iron Grove
2	Iron Grove 138-kV bus		--		--		--		--		91.2 - 91.5%	Aspen - Iron Grove 138-kV Line	Adjust 138/69-kV transformer taps at Iron Grove
2	Lakehead, Strawberry Hill, Strawberry Hill Tap, Iron Grove 69-kV buses		--		--		--		--		91.7 - 91.9%	Iron Grove 138/69-kV transformer #G1	Add second Iron Grove 138/69-kV transformer
2	Land O Lakes, Conover, Lakota Road 69-kV buses		--		--		90.5 - 90.9%		--		--	Conover-Lakota 69-kV line, Lakota Road 138/69-kV transformer #G2	Utilize available capacitance at Conover
2	Lakota Road 69-kV, 115-kV buses		110.3 - 118.8%		110.1 - 118.8%		--		--		117.4%	Eagle River Muni - Lakota Road 115-kV line Eagle River Muni - Cranberry 115-kV line	Adjust 138/69-kV transformer taps, 138-kV capacitor banks at Lakota Road
2	Chandler, Delta, West Side, Escanaba 1, Escanaba 2, Masonville, Mead, Gladstone, West, Lakehead Tap, Lakehead, Bay View, North Bluff, Cornell, Harris, Harris Tap 69-kV buses		89.0 - 91.9%		89.2 - 91.2%		88.3 - 91.5%		--		87.0 - 90.4%	Chandler 138/69-kV transformer #1	Increase generation at Mead/Gladstone/Escanaba
2	Newberry Village, Louisiana Pacific, Newberry, Newberry Hospital, Roberts, Hulbert, Eckerman, Raco, Brimley, Goetzville 69-kV buses		80.0 - 91.8%		80.6 - 91.8%		80.6 - 91.9%		Did not converge 87.1 - 91.8%		80.4 - 92.0%	Hiawatha - Engadine 69-kV line, Engadine-Newberry 69-kV line, Newberry - Newberry Village 69-kV line	Increase generation at Newberry, Dafter, DeTour, US Hydro, Edison Sault

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Planning Zone	Criteria Exceeded/Need	2014 Summer Peak Case Without Nelson Dewey		2014 Summer Peak Case With Nelson Dewey		2014 Shoulder Case		2014 E-W Bias Case		2014 High Load Case		Facility Outage(s)	Project or Mitigation
		% of Facility Rating	% of Nominal Voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage		
2	DeTour, Goetzville, Talentino 6906, Mich Limestone, Rockview 69-kV buses Brevort, Lakehead, Hiawatha 138-kV buses		--						89.4 - 92.0%		--	Brevort - Straits 138-kV line Brevort - Lakehead 138-kV line Hiawatha - Lakehead 138-kV line, Remove US Hydro Unit 1	Increase generation at Newberry, Dafter, DeTour, US Hydro, Edison Sault
2	Atlantic 138-kV bus		87.2%		87.0%		--		88.4%		84.8%	Atlantic-M-38 138-kV line	Adjust taps at Atlantic 138/69-kV transformer #1
3	Kirkwood - Rock Springs 138-kV line	--		--		--		--		95.1%		Trienda – Lewiston ACEC 138-kV line	No project needed at this time
3	Kilbourn 138/69-kV transformer #1	--		--		--		100.3%		--		Kilbourn 138/69-kV transformer #2	
3	Fitchburg –Syene - Ninesprings 69-kV line	114.9 - 96%		115 - 96.1%		--		103.2%		120.8 - 100.8%		Royster - AGA Tap 69-kV line; AGA Tap - Pflaum 69-kV line	Uprate Fitchburg-Nine Springs line, uprate Pflaum - Royster line, install 2-16.33 MVAR 69 kV capacitor banks at Nine Springs and move the AGA load onto Femrite - Royster line
3	Royster-AGA Tap-Pflaum 69-kV line	112.6 - 98.2%		112.6 - 98.3%		--		101.1 - 96.9%		118.3 - 96.8%		Fitchburg - Syene 69-kV line	Uprate Fitchburg-Nine Springs line, uprate Pflaum - Royster line, install 2-16.33 MVAR 69 kV capacitor banks at Nine Springs and move the AGA load onto Femrite - Royster line
3	Dana – Sheepskin 69-kV line	104.7 - 100%		104.7 - 100%		--		--		111.3 - 107.2%		McCue - Harmony 69-kV line; Harmony - Lamar 69-kV line	Sheepskin substation project which will uprate Y-61 Sheepskin-Dana 69-kV line to 95 MVA SE
3	McCue – Harmony - Lamar 69-kV line	104.0 - 95.4%		103.0 - 96.4%		--		--		112.2 - 97.6%		Kegonsa - Stoughton North 69-kV line ; Kegonsa 138/69-kV transformer; Stoughton North - Stoughton East 69-kV line	Y61 McCue-Lamar line uprate
3	Harmony, Lamar, Fulton, Saunders Creek, Dana, Sheepskin, Evansville 69-kV buses		84.2 -91.9%		84.3 -91.9%		--		88 -91.7%		83.1 -91.3%	McCue - Harmony 69-kV line; Harmony - Lamar 69-kV line	Lamar 2-16.33 Mvar 69-kV capacitor banks
3	Verona 138-kV bus		89.1%		89.0%		--		90.1%		88.5%	Verona - Oak Ridge 138-kV line	Lock the Verona 138/69-kV transformer setting at 1.0 to achieve 98%
3	Brodhead Muni 3, Brodhead Muni 2, Brodhead Muni 1, Brodhead and REC Orfordville 69-kV buses		91 - 91.8%		91 - 91.8%		--		--		89.4 - 91.7%	Brodhead Switching Station- Brodhead Muni 3 69-kV line; Brodhead Muni 3-Brodhead Muni 2 69-kV line	Install a 138/69-kV transformer at Bass Creek Substation
3	Muscoda 69-kV bus		--		91.9%		--		--		91.8%	Lone Rock-Spring Green 69-kV line	Install 1-8.16 MVAR capacitor bank at Boscobel 69-kV Substation and upgrade existing 5.4 MVAR bank with an 8.16 MVAR bank
3	AGA, Pflaum 69-kV buses		91.9%		91.8 - 91.9%		--		--		91.4 - 91.5%	Royster-AGA Tap 69-kV line	Loop Ninesprings-Pflaum line in and out of Femrite
3	Paddock-Townline 138-kV line	--		--		97.8 – 96.0%		--		--		Paddock-Northwest Beloit Tap 138-kV line; Northwest Beloit Tap-Black Hawk 138-kV line	Possible mitigation is to dispatch Riverside generation

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		% of Facility Rating	% of Nominal Voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage		
3	Rockdale - Wempletown 345-kV line	--		--		98.0%		--		--		Wempletown - Paddock 345-kV line	Possible mitigation is to dispatch Riverside generation
3	McCue – Harmony - Lamar 69-kV line	--		--		--		--		95.8%		System Intact	Construct double-circuit line between McCue and Lamar substations
3	North Monroe - Idle Hour 69-kV line	--		--		--		--		97.1%		Paddock - Newark 69-kV line	Install a 138/69-kV transformer at Bass Creek Substation
3	Stoughton - Sheepskin 69-kV line	--		--		--		--		99.2%-95.6%		McCue - Harmony 69-kV line; Harmony - Lamar 69-kV line	Construct double-circuit line between McCue and Lamar substations
3	Gran Grae – Wauzeka - Boscobel 69-kV line	--		--		--		--		95.7%-95.4%		Spring Green - Lone Rock 69-kV line	Uprate Y-40 Gran Grae-Boscobel 69-kV line to achieve a 99 MVA summer emergency rating
3	West Middleton - Timberlane 69-kV line	--		--		--		--		98.3%		Spring Green 138/69-kV transformer #31	Install a second 138/69-kV transformer at Spring Green with a 100 MVA summer normal rating
3	Waunakee Switching Station - Waunakee 2 69-kV line	--		--		--		--		96.3%		West Middleton - Pheasant Branch 69-kV line	Potential Waunakee Switching Station-Waunakee 2 69-kV 0.58 miles of line (Y-131) and terminal uprate to achieve 115 MVA SE
3	Academy – Columbus Muni #3 Tap 69-kV line	95.0 – 99.7%		98.4 – 102.8%		--		98.3%	--	98.6%		North Randolph – Fox Lake 138-kV line Fox Lake – North Beaver Dam 138-kV line	Model corrections
3	Columbus Muni #3 Tap – Columbus 69-kV line	98.1%		96.8 – 101.2%		--		96.8%	--	96.9%		North Randolph – Fox Lake 138-kV line Fox Lake – North Beaver Dam 138-kV line	Model corrections
3	Koch Oil Tap – Waupun 69 kV line	--		--		--		--		99.3%		North Randolph – Fox Lake 138-kV line	Horicon – East Beaver Dam 138 kV line project
3	Koch Oil Tap – South Fond du Lac 69 kV line	--		--		--		--		98.5%		North Randolph – Fox Lake 138-kV line	Horicon – East Beaver Dam 138 kV line project
3	Hubbard and Hustisford 138-kV buses		86.4 – 90.8%		86.0 – 90.2%		86.6 – 86.9%		86.4 – 87.1%		85.8 – 86.3%	Rubicon – Hustisford 138-kV line Hustisford – Hubbard 138-kV line Hartford – St. Lawrence 138-kV line	Local operating steps
3	Fox Lake, North Beaver Dam and East Beaver Dam 138-kV buses		--		88.9 – 90.0%		--		--		--	North Randolph – Fox Lake 138-kV line	Local operating steps
3	Fort Atkinson 138-kV bus		91.9%		91.6%		--		--		--	Jefferson – Lakehead – Rockdale 138-kV line	Increase generation at Concord
3	Concord 138-kV bus		95.5% 91.6%		95.3% 91.2% 91.9%		--		--		--	System Intact Jefferson – Crawfish River 138-kV line Hartford – St. Lawrence 138-kV line	Increase Concord generation Install Concord capacitors
3	Rubicon 138-kV bus		91.0%		90.4%		--		--		--	Hartford – St. Lawrence 138-kV line	Increase Concord generation Install Concord capacitors
3	Lake Geneva 69-kV bus		91.9%		91.9%		--		--		90.9%	North Lake Geneva – Lake Geneva 69-kV line	Spring Valley – Twin Lakes line
3	Twin Lakes 69-kV bus		--		--		--		--		91.4%	North Lake Geneva – Lake Geneva 69-kV line	Spring Valley – Twin Lakes line
3	Dickinson 138-kV bus		91.5%		91.6%		--		91.3%		91.1%	Colley Road – Dickinson 138-kV line	Brick Church capacitors
3	Brick Church 138-kV bus		--		--		--		91.9%		91.8%	Colley Road – Dickinson 138-kV line	Brick Church capacitors
3	Crawfish River 138-kV bus		90.2%		89.8%		--		91.7%		--	Jefferson – Crawfish River 138-kV line	Increase Concord generation
3	South Lake Geneva 69-kV bus		--		--		--		--		91.5%	North Lake Geneva – Lake Geneva 69-kV line	Spring Valley – Twin Lakes line

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		% of Facility Rating	% of Nominal Voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage	% of Facility Rating	% of Nominal bus voltage		
3	Lake Geneva – South Lake Geneva 69-kV line	99.0%		98.9%		--		--		104.3%		Cobblestone – Brick Church 69-kV line	Spring Valley – Twin Lakes line
3	Cobblestone – Zenda Tap 69-kV line	--		--		--		--		98.7%		North Lake Geneva – Lake Geneva 69-kV line	Spring Valley – Twin Lakes line
3	Williams Bay, Bristol, Delavan, North Shore, Rock River, Blackhawk, Paddock, Colley Road, Dickinson, Brick Church, Elkhorn 69-kV buses		--		--		92.0 – 91.0%		--		--	Paddock 345/138-kV transformer #21	
3	Colley Road 138/69-kV transformer #31	--		--		--		--		95.7%		Paddock 138/69-kV transformer #31	Install Bass Creek transformer
4	Chalk Hills and Alger Delta Nathan 69-kV buses		--		--		105.8 – 106.3%		--		--	System Intact	Model corrections
4	Bell Plaine 115-kV bus		--		--		105.3%		--		--	System Intact	Local operating steps
5	Harbor – Kansas 138-kV line	--		--		107.3% 107.1% 106.1% 103.3% 102.3% 99.2%		--		--		Dewey – Norwich 138-kV line Split Dewey 138-kV bus Montana – Dewey 138-kV line Kansas – Norwich 138-kV line Montana – Valley 138-kV line Harbor – Norwich 138-kV line	increase Valley generation
5	Arcadian4-Waukesha1 138-kV line	113.8%		115.7%		118.5%		131.1%		112.9%		Arcadian 6–Waukesha3 138-kV line	Upgrade Arcadian – Waukesha 138-kV lines or investigate other alternatives
5	Arcadian transformer #3 Arcadian transformer #2	106.9% 96.9%		108.1% 97.4%		99.8%		111.7% 102.8%		109.5% 98.2%		Arcadian transformer #1	Replace Arcadian transformers or investigate other alternatives
5	Pleasant Valley 138-kV bus		--		91.8%		--		--		--	Pleasant Valley – Saukville 138-kV line	Increase Concord generation
5	Arcadian6 – Waukesha3 138-kV line	112.9%		114.8% 96.7%		117.6% 105.6%		130.1% 114.2%		111.9%		Arcadian4- Waukesha1 138-kV line Waukesha 138-kV 1-2 bus tie	Upgrade Arcadian – Waukesha 138-kV lines or investigate other alternatives
5	Bain 345/138-kV transformer #5	158.9% 100.5%		158.9% 98.9% 95.3%		147.0%		158.8%		159.2% 99.8% 96.8%		Pleasant Prairie 345-kV 3-4 bus tie Pleasant Prairie 345-kV 2-3 bus tie Bain 345/138-kV transformer #4	Reduce Pleasant Prairie generation
5	Bain 345/138-kV transformer #4	--		--		--		--		96.0%		Bain 345/138-kV transformer #5	Reduce Pleasant Prairie generation
5	Albers – Bain 138-kV line	112.5%		114.0%		102.9% 96.2%		116.6%		115.4%		Bain - Kenosha 138-kV line Albers – Kenosha 138-kV line	Upgrade Bain – Albers 138-kV line
5	Albers – Kenosha 138-kV line	--		--		124.9%		112.8%		--		Albers – Bain 138-kV line	Increase Paris generation
5	Edgewood – St. Martins 138-kV line	--		--		102.0% 95.5% 97.2%		--		--		Merrill Hills - Waukesha 138-kV line Paris – Air Liquide - Burlington 138-kV line Paddock – Wempletown 345kV line	Increase Concord generation
5	Tichigan 138-kV bus		--		--		91.3%		--		--	Burlington 138-kV 1-2 bus tie	Increase University generation
5	Burlington 138-kV bus		--		--		91.6%		--		--	Burlington 138-kV 1-2 bus tie	Increase University generation
5	Germantown 138-kV bus		--		--		--		89.8%		--	Maple – Saukville 138-kV line	Increase Germantown generation
5	Maple 138-kV bus		--		--		--		89.4%		--	Maple – Saukville 138-kV line	Increase Germantown generation
5	Nicholson – Ramsey 138-kV line	--		--		--		95.0%		--		Oak Creek – Pennsylvania 138-kV line	Increase Germantown generation
5	Hartford 138-kV bus		90.0%		89.5%		--		--		--	Hartford – St. Lawrence 138-kV line	Increase Concord generation Install Concord capacitors
5	Butler Ridge 138-kV bus		90.5%		89.9%		--		--		--	Hartford – St. Lawrence 138-kV line	Increase Concord generation Install Concord capacitors
5	Cooney 138-kV bus		95.9% 91.5%		95.7% 91.0%		--		--		--	System Intact Cooney – Summit 138-kV line	Increase Concord generation Install Concord capacitors