

2016 TYA Preliminary Network Solutions

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1	System Addition	2016 TYA Preliminary Network Need Year	2016 TYA Preliminary Projected In-Service Year	Planning Zone	Need Category	MISO MTEP Appendix Status	MTEP PRJID	Comment
2	Tomahawk Substation: Install bus tie breaker to sectionalize	2017***	2017	1	T-D Interconnection	targeted A 16	10685	
3	White Lake Substation: Install line breaker to sectionalize	2017***	2017	1	T-D Interconnection	targeted A 16	11224	
4	Esker View Substation: loop LYNG11 in and out	2017***	2017	4	T-D interconnection	A	7780	
5	Spare Reactor Purchase	2020	2017	1, 3a	P0	target A 17	--	
6	Brick Church Substation: Remove breaker 1532-S current transformer	ASAP	2017	3b	reliability (P1.3, P2.1)	--	--	
7	Lawn Rd Substation: Install 138-kV breakers to sectionalize 138-kV circuit 6851	2018***	2018	4	Operating flexibility	target A 17	--	
8	Lost Dauphin - Red Maple 138 kV line uprate Q-147	2020***	2018	4	reliability (various TPL categories)	targeted B 16, target A 17	9930	
9	Oakview Substation: loop 836 in and out	2018***	2018	5	T-D Interconnection	targeted A 16	10563	
10	St Martins Substation: Add new 138 kV bus and bus tie breaker	2018***	2018	5	T-D Interconnection	targeted A 16	10643	
11	Pulliam 138-kV Substation: Install redundant bus differential	2019***	2019	4	reliability (stability P5.5)	--	--	
12	Port Washington - Saukville: Rebuild Line 762 to a double circuit	2021	2021	5	reliability (P2.4/P7.1)	targeted A 16	9986	
13	Gran Grae Substation: Install a second 161/69 kV transformer	2026*	2026	3a	reliability (69 P1.3)	--	--	
14	Y-121: re-rate 1.2 miles of 69 kV line between Council Creek and Tomah Industrial Park	2015	2017	1	reliability (P1), operating flexibility	targeted B 16, target A 17	9928	
15	Bain - Albers 138-kV line uprate 63143	2016**	2017	5	reliability (P1.2)	A	3900	SBRM Project
16	Oak Creek-Pennsylvania 138-kV line uprate 837	2016**	2017	5	reliability (P1.2)	A	2056	SBRM Project
17	Cardinal - North Madison 345 kV line	2018***	2017	3a	reliability, economics and policy benefits	A	3127	Split up Badger - Coulee due to different ISD for each section
18	University/Whitewater line reconfiguration	2018**	2017	3b	reliability (P1.2)	A	4728	
19	Depere - Glory Rd 138-kV overhead line rebuild	2020***	2018	4	reliability (various TPL categories)	A	9081	
20	Oak Creek - Hayes 138-kV line 811 upgrade and reconfiguration	ASAP***	2018	5	reliability (P7)	targeted A 16	9934	
21	Portage-Trienda 138-kV uprate X-67	2018**	2018	3b	reliability (69P1.2)	A	1624	SBRM Project
22	Williams Bay Substation: Loop X44 in and out	2019***	2019	3b	T-D interconnection	A	4421	
23	Presque Isle - Tilden 138 kV line loop into National and uprate National - Tilden 138 kV line	2019	2020	2	reliability (P1.2, P6)	B	3838	
24	Winona - Atlantic 69-kV line rebuild Winona69	2026	2024	2	reliability	--	4727	
25	Construct Shoto to Custer 138-kV line	>2031	2026	4	reliability (69P1.2, 69P1.3)	B	1719	
26	Custer Substation: Install 138/69-kV transformer	>2031	2026	4	reliability (69P1.2, 69P1.3)	B	1718	
27	Portage - Columbia 138-kV line rebuild X-13	2027	2027	3b	reliability (P1.2)	--	4730	
28	Portage - Columbia 138-kV line rebuild X-20	2027	2027	3b	reliability (P1.2)	--	4730	
29	ACEC Dellwood Substation: Install line breakers to sectionalize Y-146	2016***	2016	1	T-D interconnection	A	7741	
30	Guenther Substation: loop T-20 in and out	2016***	2016	1	T-D interconnection	A	4712	
31	Montello Substation: Install 2 line breaker on line Y-17 to sectionalize	2016***	2016	1	T-D interconnection	A	7601	
32	Rocky Run - Plover 115-kV line uprate S-45	2016**	2016	1	reliability (P1.2)	A	3915	SBRM Project
33	Bay Lake: Holmes - Old Mead Road 138-kV project	ASAP***	2016	2	reliability (various TPL categories)	A	3679	
34	Zone 2 switching initiative	ASAP***	2016	2	Operating flexibility	targeted A 16	--	
35	Beardsley St. Substation: Install 3 69-kV line breakers to sectionalize 69-kV circuit J-10	2016***	2016	4	Operating flexibility	A	7981	
36	Iron Foundry Substation: 138/69-kV Substation construction and Glenview-Iron Foundry 69-kV line extension	2016*	2016	4	T-D Interconnection	A	4422	
37	Pulliam - Glory Road 138-kV line conversion K-115	2016***	2016	4	T-D interconnection, reliability (69P6)	A	3841	
38	Pulliam Substation: Install a new 138/69-kV transformer	2016***	2016	4	T-D interconnection, reliability (69P6)	A	3841	Part of Pulliam - Glory Rd Conversion
39	Oak Creek-Bluemound 230-kV line uprate 873	2016**	2016	5	reliability (P1.2)	A	3486	SBRM Project
40	BloomingtonSubstation: Install SCADA controlled breakers to sectionalize	2016**	2016	3a	Operating flexibility	targeted A 16	9917	
41	McCue - Lamar 69-kV line rebuild Y-171	2016**	2016	3a	reliability (69 P1.2)	A	3904	SBRM Project and AM rebuild
42	Stagecoach - Wick Drive 69-kV line rebuild Y-62	2016**	2016	3a	reliability (69 P1.3)	A	3892	SBRM Project
43	Construct Fairwater-Mackford Prairie 69-kV line	2018*	2017	1	reliability (69P1.2)	A	1708	

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44	Reconfigure the North Randolph-Ripon 69-kV line to form a second Ripon-Metomen 69-kV line and retire the circuit between Metomen and the Mackford Prairie tap	2018*	2017	1	reliability (69P1.2), condition	A	1708	
45	Canal Substation: Install 138-kV breakers on 138/69-kV transformers	2017***	2017	4	operating flexibility, reliability (69P1.3)	B, targeted A 16	7983	
46	Canal Substation: Install redundant bus differentials on 138-kV buses	2017***	2017	4	reliability (P5.5)	B, targeted A 16	7985	
47	Creekview Substation: 138 kV line construction to serve T-D interconnection	2017***	2017	4	T-D interconnection	A	4353	
48	Mukwonago Substation: Install line breaker on line 67K61	2017***	2017	5	Operating flexibility	targeted A 16	9923	
49	West Middleton-Stage Coach 69-kV uprate 6927, short term fix	2018**	2017	3a	reliability (P1.2, 69 P1.3, P2.1)	A	3159	
50	Birchwood Substation: Install a bus tie breaker	2019***	2017	3b	T-D interconnection	targeted A 16	9921	
51	Pershing Substation: Loop Stone Lake - Gardner Park 345-kV line into new Pershing 345/115-kV Substation	2018***	2018	1	T-T interconnection	targeted B 16	9925	
52	Branch River Substation: Construct new 345-kV switching station	2018*	2018	4	new generation	A	3206	
53	Forest Junction 138kV Substation: Install 25 Mvar inductor	>2031	2018	4	system intact (P0)	B, target A MTEP17	7581	
54	Forest Junction 138-kV Substation: Install redundant bus differential	2019***	2018	4	reliability (stability E2.5)	B, targeted A 16	8101	
55	Highway V Substation: Install 138-kV breakers and 69-kV circuit switchers on 138/69-kV transformers	2018***	2018	4	operating flexibility, reliability (69P1.3 with prior maintenance)	B, target A 17	7986	
56	Ogden St. Networking Project: Ogden St. - Bayshore 69-kV line construction	2018***	2018	4	T-D interconnection	A	4732	
57	Werner West 138kV Substation: Install 25 Mvar inductor	>2031	2018	4	system intact (P0)	B	7580	
58	West Marinette Substation: Install 138-kV circuit switchers on 138/69-kV transformers	2014***	2018	4	reliability (various TPL categories)	A	8076	
59	Saukville Substation: Install parallel breaker on line 8222	2020	2018	5	reliability (P2.1)	--	--	
60	North Madison - Briggs Road 345 kV line	2018***	2018	1, 3	reliability, economics and policy benefits	A	3127	Split up Badger - Coulee due to different ISD for each section
61	Colley Road-Brick Church 69-kV rebuild Y-32	2018*	2018	3b	reliability (P1.2, 69P1.3, 69P7, P6) condition	A	2031	
62	M13-Reinforcement-Bunker Hill-Blackbrook	2019**	2019	1	reliability (P1.2)	A	7602/7603	
63	Atlantic Substation: Reconfiguration	2019	2019	2	operating flexibility, reliability (69P5)	B	7586	
64	Bay Lake: Benson Lake Substation -- Construct new 138-kV substation and install 150 Mvar SVC (near Amberg Substation)	ASAP***	2019	2	reliability (various TPL categories)	A	3679	
65	Bay Lake: Morgan - Stiles 138-kV circuit de-bifurcate to form 2 separate 138 kV lines	ASAP***	2019	4	reliability (various TPL categories)	A	3679	
66	Bay Lake: Morgan Substation -- reconfigure and expand 345-kV and 138-kV switchyards	ASAP***	2019	4	reliability (various TPL categories)	A	3679	
67	Bay Lake: North Appleton - Morgan 138 kV line construction	ASAP***	2019	4	reliability (various TPL categories)	A	3952	
68	Bay Lake: North Appleton - Morgan 345 kV line construction	ASAP***	2019	4	reliability (various TPL categories)	A	3679	
69	Bay Lake: North Appleton Substation -- Construct new 345-kV switchyard and reconfigure 138-kV switchyard	ASAP***	2019	4	reliability (various TPL categories)	A	3679	
70	City Limits 138-kV bus reconductor	2026	2019	4	reliability (P3.2)	B, targeted A 16	8640	
71	Somers Substation: Close the N.O. Somers - Albers 138-kV line and install N.O. bus tie breaker at Somers	2019***	2019	5	T-D interconnection	A	8660	
72	Bain - Spring Valley 138-kV uprate 63141	2019	2019	3b & 5	T-D interconnection, reliability (69P1.2)	A	3808	Part of Spring Valley-Lake Geneva Project
73	Construct a new 138/69-kV substation on Spring Valley - North Lake Geneva 138-kV circuit	2019	2019	3b & 5	T-D interconnection, reliability (69P1.2)	A	3808	Part of Spring Valley-Lake Geneva Project
74	Construct a new 69-kV circuit from Twin Lakes to the new substation	2019	2019	3b & 5	T-D interconnection, reliability (69P1.2)	A	3808	Part of Spring Valley-Lake Geneva Project
75	Construct a new Spring Valley-North Lake Geneva 138-kV circuit	2019	2019	3b & 5	T-D interconnection, reliability (69P1.2)	A	3808	
76	Twin Lakes - Katzenberg 69-kV rebuild Y-102	2019	2019	3b & 5	T-D interconnection, reliability (69P1.2)	A	3808	Part of Spring Valley-Lake Geneva Project
77	Plains - Arnold 138-kV uprate	2020***	2020	2	reliability (various TPL categories)	B	8073	NARA
78	Plains - National 138-kV project	2020***	2020	2	reliability (various TPL categories)	A	8071	NARA
79	Plains 345/138-kV project (2-500 MVA replace existing)	2020***	2020	2	reliability (various TPL categories)	B	8073	NARA

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80	Highway V - Preble 138-kV line uprate	2020***	2020	4	reliability (various TPL categories)	B	8082	
81	Morgan - Plains 345-kV loop into new Thunder 345-kV substation.	2020***	2020	4	reliability (various TPL categories)	B	8076	NARA
82	Morgan - Thunder 138-kV project	2020***	2020	4	reliability (various TPL categories)	B	8076	NARA
83	Thunder Substation: install 345/138-kV and 138/69-kV transformers, convert 1 ckt of Thunder to Crivitz to 138-kV	2020***	2020	4	reliability (various TPL categories)	B	8076	NARA
84	Wesmark Substation: Install 2-8 Mvar 69-kV capacitor banks	>2026	2020	4	reliability (69P2.1)	B	9935	
85	Southeastern Wisconsin Northeastern Illinois Reinforcement Project	ASAP***	2020	5	reliability(P7)	A	8065	
86	Cardinal - Hickory Creek 345-kV line construction	2020***	2020	3a	reliability, economics and policy benefits	A	3127	
87	West Middleton - Stagecoach 69 kV line rebuild 6927	2020**	2020	3a	reliability (P1.2, P1.3)	target B MTEP17	--	
88	Arcadian Substation: install redundant bus differentials on 345-kV and 138-kV buses	2023	2023	5	reliability (stability E2.5)	--	--	
89	Granville Substation: install redundant bus differentials on 345-kV and 138-kV buses	2023	2023	5	reliability (stability E2.5)	--	--	
90	Colley Road Substation: Install 2nd 100 MVA 138/69kV transformer	>2031	2023	3b	reliability (69P1.2, 69P2.1 ,69P1.3)	B	7585	
91	Aviation - North Fond du Lac 138-kV rebuild G-111	>2026	2025	4	reliability (P3.2)	--	--	
92	Arcadian-Waukesha 138-kV lines KK9942/KK9962 rebuild	2027	2025	5	reliability (P3.2, P1.2)	A	1270	
93	Construct Cardinal-Blount 138-kV line	>2031	2029	3a	reliability (P6)	--	1730	
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99								
100	Orange Shading = new project, was not in previous Assessment project list							
101	Gray Shading = some change (e.g. In-service year or scope) since previous Assessment							