

**ATC 2018 10-Year Assessment (TYA) Preliminary Network Continuing Needs**

	A	B	C	D	E	F	G	H	I	J	K
1	Continuing System Need Solutions	2016 TYA Network Need Year	2017 TYA Network Need Year	2018 TYA Network Need Year	Planning Zone	Planned, Proposed or Provisional	Included in Base Models	Need Category	MISO MTEP Appendix Status	MTEP PRJID	MTEP Cost or Cost Range
2	Lincoln SS, 138 kV Bus Reconfiguration			2019***	5	Proposed	No	reliability (prior + P1.2)	--	--	<10
3	Edgewater - Erdman 69 kV line Y-31 rerate			2020	4	Proposed	No	reliability (prior + P1.2)	targeted A 18	--	1.8
4	Hooterville SS, DIC - Replace Transformer		2017***	2018***	3	Proposed	Yes	T-D Interconnection	targeted A 18	13718	0.34
5	Juneau Northside SS, DIC - Replace Transformer		2017***	2018***	3	Proposed	Yes	T-D Interconnection	targeted A 18	13731	0.14
6	Berryville SS, DIC - Add 2nd Transformer		2017***	2018***	5	Proposed	Yes	T-D Interconnection	targeted A 18	13734	0.53
7	Hillman SS, DIC - Add Transformer		2017***	2018***	3	Proposed	Yes	T-D Interconnection	targeted A 18	13736	2.32
8	Darlington SS, DIC - Replace Transformer and Construct New Control House		2017***	2018***	3	Proposed	Yes	T-D Interconnection	targeted A 18	13740	1.88
9	Verona Substation, breaker installation		2017***	2018***	3	Proposed	Yes	T-D Interconnection	A	12097	0.44
10	Atlantic Substation: Reconfiguration	2019	2019	2020	2	Provisional	No	operating flexibility, reliability (69P5)	B	7586	9
11	Presque Isle - Tilden 138 kV line loop into National and uprate National - Tilden 138 kV line	2019	2019	2020	2	Provisional	No	reliability (prior + P1.2)	--	--	<10
12	Arnold Substation: 345 kV, 80 MVAR Inductor Bank		2019***	2022***	2	Provisional	No	P0	targeted B 18	14187	5
13	Portage - Columbia 138-kV line rebuild X-13	2027	2018	2023	3	Provisional	No	reliability (P1.2)	--	4730	5.9
14	Portage - Columbia 138-kV line rebuild X-20	2027	2018	2023	3	Provisional	No	reliability (P1.2)	--	4730	5.9
15	Construct Cardinal-Blount 138-kV line	>2031	2032	>2033	3	Provisional	No	reliability (P6)	--	1730	60.8
16	McMillan - Wildwood 115-kV line N-144, uprate		ASAP***	ASAP***	1	Proposed	No	Economics	A	13064	0.2
17	Big Pond Substation, retirement		2020	ASAP***	1	Proposed	Yes	no T-D Need	targeted B 18	13831	0.45
18	Oak Creek - Hayes 138-kV line 811 uprate and reconfiguration	ASAP***	ASAP***	ASAP***	5	Planned	Yes	reliability (P7)	A	9934	18
19	Bay Lake: Morgan Substation -- reconfigure and expand 345-kV and 138-kV switchyards	ASAP***	ASAP***	ASAP***	4	Planned	Yes	reliability (various TPL categories)	A	3679	305.8
20	Bay Lake: North Appleton - Morgan 138 kV line construction	ASAP***	ASAP***	ASAP***	4	Planned	Yes	reliability (various TPL categories)	A	3952	64.8
21	Bay Lake: North Appleton - Morgan 345 kV line construction	ASAP***	ASAP***	ASAP***	4	Planned	Yes	reliability (various TPL categories)	A	3679	305.8
22	Bay Lake: North Appleton Substation -- Construct new 345-kV switchyard and reconfigure 138-kV switchyard	ASAP***	ASAP***	ASAP***	4	Planned	Yes	reliability (various TPL categories)	A	3679	305.8
23	West Marinette Substation: Add high side protection to 138/69-kV transformers	2014***	2014***	2014***	4	Planned	Yes	reliability (various TPL categories)	A	9080	4.5
24	J395: Darlington - North Monroe 138 kV line X-49, uprate		2017***	2017***	3	Proposed	Yes	G-T Interconnection	A	12284	18.6
25	Install Sagola 69KV Tap		2018***	2018***	2	Proposed	Yes	T-D Interconnection	A	12180	0.4
26	Velp SS, DIC - Replace Transformer		2018***	2018***	4	Proposed	Yes	T-D Interconnection	targeted A 18	13720	0.23
27	Sherman Street SS, DIC - Replace High Side Circuit Switcher		2018***	2018***	1	Proposed	Yes	T-D Interconnection	targeted A 18	13721	0.07
28	Baraboo SS, Bus Uprate and RTU Replacement		2018***	2018***	3	Proposed	Yes	T-D Interconnection	targeted A 18	13766	1.8
29	Wittenberg SS, DIC - Replace Transformer		2018***	2018***	1	Proposed	Yes	T-D Interconnection	targeted A 18	13787	0.12
30	Oak St SS, DIC - Replace Transformer		2018***	2018***	4	Proposed	Yes	T-D Interconnection	targeted A 18	13790	0.88
31	Mukwonago Substation: Install line breaker on line 671K61	2017***	2018***	2018***	5	Planned	Yes	operating flexibility	A	9923	0.6
32	Okray Substation, breaker installation		2018***	2018***	1	Proposed	Yes	T-D Interconnection	A	--	<10
33	Plover Substation, Reconfiguration		2018***	2018***	1	Proposed	Yes	T-D Interconnection	A	13726	1.8
34	Springwater Substation, new T-D Interconnection		2018***	2018***	1	Proposed	Yes	T-D Interconnection	A	10603	3.8
35	Arcadian - Waukesha 138 kV lines, Uprate (9942/9962)		2018	2018	5	Planned	Yes	reliability (P3.2, P1.2)	A	12463	0.3
36	Stoughton West Substation, new T-D Interconnection		2018***	2018***	3	Proposed	Yes	T-D Interconnection	A	12347	1.8
37	Tripp Rd Substation, breaker installation		2018***	2018***	3	Proposed	Yes	T-D Interconnection	A	13068	2.9
38	Oakview Substation: loop line 836 in and out and install 138-kV bus tie breaker	2018***	2018***	2018***	5	Planned	Yes	T-D Interconnection	A	10563	3.3

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39	St Martins Substation: Add new 138 kV bus and bus tie breaker	2018***	2018***	2018***	5	Proposed	Yes	T-D Interconnection	A	10643	4.7
40	North Madison - Briggs Road 345 kV line	2018***	2018***	2018***	1, 3	Planned	Yes	reliability, economics and policy benefits	A	3127	1016.1
41	Plymouth 4 Substation, breaker installation		2018***	2018***	4	Proposed	Yes	T-D Interconnection	A	13065	1.6
42	Forest Junction 138kV Substation: Install 25 Mvar inductor	2018***	2018***	2018***	4	Planned	Yes	system intact (P0)	A	7581	1.8
43	Ogden St. Networking Project: Ogden St. - Bayshore 69-kV line construction	2018***	2018***	2018***	4	Planned	Yes	T-D interconnection	A	4732	10.4
44	Branch River Substation: Construct new 345-kV switching station	2018*	2018*	2018*	4	Planned	Yes	new generation	A	3206	46.6
45	City Limits 138-kV bus reconductor	2026	2018***	2018***	4	Planned	Yes	reliability (P3.2)	A	8640	0.6
46	Pershing Substation: Loop Stone Lake - Gardner Park 345-kV line into new Pershing 345/115-kV Substation	2018***	2018***	2018***	1	Proposed	No	T-T interconnection	B	9925	15
47	Forest Junction 138-kV Substation: Install redundant bus differential	2019***	2019***	2019***	4	Planned	Yes	reliability (stability E2.D)	--	--	<10
48	Construct Edgerton T-D 138 KV		2018***	2019***	3	Proposed	Yes	T-D Interconnection	A	13066	1.7
49	State Line SS, new DIC		2019***	2019***	5	Proposed	Yes	T-D Interconnection	targeted A 18	14604	8.2
50	Construct Arcadian 138KV D-T		2019***	2019***	5	Proposed	Yes	T-D Interconnection	A	13067	0.26
51	Hancock SS - DIC, Replace Transformers		2019***	2019***	1	Proposed	Yes	T-D Interconnection	targeted A 18	13774	4.72
52	Plover SS, DIC - Replace Transformers		2019***	2019***	1	Proposed	Yes	T-D Interconnection	targeted A 18	13726	1.77
53	Cranberry Substation 115 kV, 10.4 MVAR Inductor Bank		2019***	2019***	2	Proposed	No	P0	targeted A 18	14184	2
54	M-38 SS and Silver River SS, New 138 kV Inductor Banks		2019***	2019***	2	Proposed	No	P0	targeted A 18	14185	4.1
55	Iron Grove: 138 kV, 15 MVAR Inductor Bank		2019***	2019***	2	Proposed	No	P0	targeted A 18	14186	2
56	Winona Substation: 138 kV, 8 MVAR Inductor Bank		2019***	2019***	2	Proposed	No	P0	targeted A 18	14805	1.9
57	Bain - Spring Valley 138-kV uprate 63141	2019	2019	2019	3 & 5	Planned	Yes	T-D interconnection, reliability (69P1.2)	A	3808	70.5
58	Construct a new 138/69-kV substation on Spring Valley - North Lake Geneva 138-kV circuit	2019	2019	2019	3 & 5	Planned	Yes	T-D interconnection, reliability (69P1.2)	A	3808	70.5
59	Construct a new 69-kV circuit from Twin Lakes to the new substation	2019	2019	2019	3 & 5	Planned	Yes	T-D interconnection, reliability (69P1.2)	A	3808	70.5
60	Construct a new Spring Valley-North Lake Geneva 138-kV circuit	2019	2019	2019	3 & 5	Planned	Yes	T-D interconnection, reliability (69P1.2)	A	3808	70.5
61	Twin Lakes - Katzenberg 69-kV rebuild Y-102	2019	2019	2019	3 & 5	Planned	Yes	T-D interconnection, reliability (69P1.2)	A	3808	70.5
62	M13-Reinforcement-Bunker Hill-Blackbrook	2019**	2019**	2019**	1	Planned	Yes	reliability (P1.2)	A	7602/7603	28.3
63	Somers Substation: loop Racine - Kenosha 138-kV line 1651 in and out	2019***	2019***	2019***	5	Planned	Yes	T-D interconnection	A	8660	8
64	Walker Tap Underground Cable Removal		2019***	2019***	5	Planned	Yes	no T-D Need	targeted A 18	14039	0.7
65	Williams Bay Substation: Loop X-44 in and out	2019***	2019***	2019***	3	Proposed	Yes	T-D interconnection	A	4421	4.4
66	J390: Kittyhawk Substation, new G-T interconnection		2019***	2019***	3	Proposed	Yes	G-T Interconnection	A	13103	49.5
67	Paddock - NW Beloit 138 kV line X-53, install series reactor		2019***	2019***	3	Proposed	Yes	reliability (various TPL categories)	A	13004	1.4
68	Highway V Substation: Install 138-kV breakers and 69-kV circuit switchers on 138/69-kV transformers	2018***	2019***	2019***	4	Planned	Yes	operating flexibility, reliability (prior + 69P1.3)	A	7986	9
69	Pulliam 138-kV Substation: Install redundant bus differential	2019***	2019***	2019***	4	Planned	Yes	reliability (stability P5.5)	--	--	<10
70	Ellinwood 138-kV Bus Rerate	2019*	2019*	2019*	4	Proposed	No	reliability (P6)	A	12103	2.4
71	J703 Huron SS, Generator Interconnection Facilities		2019***	2019***	2	Proposed	Yes	G-T Interconnection	targeted A 18	13784	17.1
72	J704 Silver River SS, Generator Interconnection Facilities		2019***	2019***	2	Proposed	Yes	G-T Interconnection	targeted A 18	13769	19.6
73	Plains - Arnold 138-kV uprate	2023***	2019***	2019***	2	Proposed	Yes	NITS Request	A	13572	9.4
74	Mount Pleasant Tech Interconnection Project		2020***	2019***	5	Proposed	Yes	T-D Interconnection	targeted A 18	14073	140
75	Spare Reactor Purchase	2020	2020	2020	1, 3	Proposed	Yes	P0	--	--	<10

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76	Lost Dauphin - Red Maple 138 kV line uprate Q-147	2020***	2020***	2020***	4	Planned	Yes	reliability (various TPL categories)	A	9930	0.04
77	Depere - Glory Rd 138-kV overhead line rebuild	2020***	2020***	2020***	4	Planned	Yes	reliability (various TPL categories)	A	9081	1.6
78	J711 Silver River SS, Network Upgrades		2019***	2020***	2	Provisional	Yes	G-T Interconnection	targeted B 18	14204	20
79	S Lake Geneva SS T-D Tformer Add		2020***	2020***	3	Proposed	Yes	T-D Interconnection	targeted B 18	13716	0.3
80	Baker St Substation: Add new 115-kV bus and bus tie breaker	2020***	2020***	2020***	1	Proposed	Yes	T-D Interconnection	A	12115	4.4
81	Northern Lights Substation, new T-D interconnection		2020***	2020***	3	Proposed	Yes	T-D Interconnection	A	12346	26
82	Juneautown Substation, new T-D interconnection		2020***	2020***	5	Proposed	Yes	T-D Interconnection	B, targeted A 18	13104	34.6
83	Dartford SS Alliant T-D		2021***	2021***	4	Proposed	Yes	T-D Interconnection	targeted B 18	13785	0.05
84	Hawk SS AE DIC New 138kV Bus		2021***	2021***	3	Proposed	No	T-D Interconnection	targeted B 18	13741	0.88
85	Schofield SS AE DIC		2021***	2021***	3	Proposed	Yes	T-D Interconnection	targeted B 18	13745	0.38
86	Kincheloe SS DIC		2021***	2021***	2	Proposed	Yes	T-D Interconnection	targeted B 18	13767	0.36
87	Port Washington - Saukville: Rebuild Line 762 to a double circuit	2021	2021	2021	5	Planned	Yes	reliability (P2.4, P7.1)	A	9986	18
88	Portage-Trienda 138-kV uprate X-67	2018**	2022**	2022**	3	Planned	Yes	reliability (69P1.2)	A	1624	2
89	Eaton Substation, new T-D interconnection		2022***	2022***	4	Proposed	Yes	T-D Interconnection	A	10484	2.5
90	Riverside SS, 69 kV Bus Uprate		2022***	2022***	4	Proposed	No	reliability (prior plus P1)	targeted A 18	13832	0.08
91	Arcadian Substation: install redundant bus differentials on 345-kV and 138-kV buses	2023	2023	2023	5	Provisional	No	reliability (stability E2.D)	--	--	<10
92	Granville Substation: install redundant bus differentials on 345-kV and 138-kV buses	2023	2023	2023	5	Provisional	No	reliability (stability E2.D)	--	--	<10
93	West Middleton - Stagecoach 69 kV line rebuild 6927	2023**	2023**	2023**	3	Provisional	No	reliability (P1.2, P1.3)	B	12175	3.8
94	Cardinal - Hickory Creek 345-kV line construction	2023***	2023***	2023***	3	Proposed	No	reliability, economics and policy benefits	A	3127	1016.1
95	Bayridge Substation, new T-D interconnection		2024***	2024***	4	Proposed	Yes	T-D Interconnection	A	10485	<10
96	Keel Ridge D-T New SS		2025***	2025***	2	Proposed	No	T-D Interconnection	targeted B 18	13792	2.6
97	Gran Grae Substation: Install a second 161/69 kV transformer	2026*	2026	2026	3	Provisional	No	reliability (69P1.3)	--	--	<10
98	Highway V - Preble 138-kV line uprate	2020***	>2032	>2033	4	Provisional	No	reliability (various TPL categories)	B	8082	6
99											
100											
101	<b>Legend</b>										
102	* = dates based on approved project scope ISDs										
103	** = SBRM Study Need Year										
104	*** = Other Major Project Study need year										
105											
106	No Shading = No change to project since previous Assessment										
107	Orange Shading = new project, was not in previous Assessment project list										
108	Gray Shading = some change (e.g. In-service year or scope) since previous Assessment										