

2013 10-Year Assessment Preliminary Network Project List

	A	B	C	D	E
1	System Addition	Preliminary Network Need Year	Preliminary Projected In-Service Year	Planning Zone	Comment
2	Rebuild M38-Atlantic 69-kV line	2011	2013	2	
3	Rebuild Pleasant Prairie 345-kV bus	2013	2013	5	asset renewal driven. Considers P4-Zion
4	Straits Substation: Install redundant bus differentials on 138-kV buses	2013***	2013	2	Project developed as a result of the NERC Category C.9 analysis
5	Christiana Substation: Install redundant bus differentials on 138-kV buses	2013***	2013	3	Project developed as a result of the NERC Category C.9 analysis
6	Rockdale substation: Install redundant bus differentials on 345-kV and 138-kV buses	2013***	2013	3	Project developed as a result of the NERC Category C.9 analysis
7	Construct Pleasant Prairie-Zion Energy Center 345-kV line	2014	2013	5	Need is economic benefits
8	Construct Monroe County-Council Creek 161-kV line and Timberwolf 69-kV switching station	2013	2014	1	
9	Install a 161/138-kV transformer at Council Creek Substation	2013	2014	1	Part of MOC-COC project
10	Uprate Council Creek-Petenwell 138-kV line	2013	2014	1	Part of MOC-COC project
11	Rebuild Straits-Pine River lines 6904/5 for 138 kV and operate at 69 kV	2014	2014	2	U.P. Collaborative
12	Install power flow control near Straits 138-kV Substation	2010	2014	2	U.P. Collaborative
13	Energize Hiawatha-Indian Lake at 138 kV	2014	2014	2	U.P. Collaborative
14	Paddock - Town Line Road 138-kV single circuit rebuild X-39	2014	2014	3	Asset renewal rebuild of double circuit portion scheduled to be completed in 2013. Single circuit portion in 2014.
15	Construct Old Mead Rd-Chandler double circuit 138-kV lines and operate at 138/69	2014	2014	2	Part of Old Mead Rd - Chandler project (Old Mead Rd fka 18th Road)
16	Construct Old Mead Rd 138/69-kV Substation and install one 138/69-kV transformer	2014	2014	2	Part of Old Mead Rd - Chandler project (Old Mead Rd fka 18th Road)
17	Install 2-4.08 Mvar 69-kV capacitor banks at Old Mead Rd	2014	2014	2	Part of Old Mead Rd - Chandler project (Old Mead Rd fka 18th Road)
18	West Middleton - West Towne 69-kV line rebuild 6997	2014**	2014	3	SBRM Project
19	Paddock - Shaw 69-kV line rebuild Y-54	2014**	2014	3	SBRM Project
20	Uprate Ripon-Northwest Ripon 69-kV line Y-93	2014**	2014	1	SBRM Project
21	Branch - Kansas 138-kV line uprate 42152	2014**	2014	5	SBRM Project
22	Albers - Kenosha 138-kV line re-conductor 9352	2014**	2014	5	SBRM Project
23	Oak Creek - Ramsey 138-kV line re-conductor 824	2014**	2014	5	SBRM Project
24	Nicholson - Barland 138-kV line rebuild OACG48	2014**	2014	5	SBRM Project
25	Kenosha - Lakeview 138-kV line rebuild 9341	2014**	2014	5	SBRM Project
26	Omro - Berlin 69-kV line rebuild Y-80	2014**	2014	1	SBRM Project
27	Portage Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	3	Project developed as a result of the NERC Category C.9 analysis
28	Presque Isle Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	2	Project developed as a result of the NERC Category C.9 analysis
29	Saukville Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	5	Project developed as a result of the NERC Category C.9 analysis
30	Manrap - Custer 69-kV line uprate Y-MRP11	2014**	2014	4	SBRM Project was 2015, now 2014
31	Blaney Park 69-kV Substation: Reconfiguration	2014	2014	2	UP Collaborative Needed regardless of MISO Northern Area Study
32	Construct a new Arnold 345-kV Substation and install a 345/138-kV transformer	2015	2015	2	U.P. Collaborative - part of Escanaba area solution set D was 2014, now 2015
33	Reconfigure 138-kV bus and replace 138/69-kV transformer at Petenwell	2015*	2015	1	
34	Empire - Presque Isle 138-kV line uprate Goose Lake	2015**	2015	2	SBRM Project
35	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	2015	2015	3	
36	96th St Substation: Construct an 8-position ring bus	2015*	2015	5	Part of the Zoo Interchange Project
37	Construct 138-kV lines to serve Milwaukee County T-D interconnection	2015	2015	5	T-D interconnection
38	Chaffee Creek - ACEC Coloma Tap 69-kV line rebuild Y-18	2015**	2015	1	SBRM Project
39	Castle Rock-Mckenna 69-kV line uprate Y-47	2015**	2015	1	SBRM Project
40	Fitzgerald Substation: Install 2nd 345/138-kV transformer	2016*	2016	4	was 2015, now 2016
41	Fitzgerald - Sunset Point 138-kV uprate C-107	2016*	2016	4	Part of Fitzgerald 2nd Transformer Project
42	Fitzgerald - Ellinwood 138-kV uprate W-101	2016*	2016	4	Part of Fitzgerald 2nd Transformer Project
43	Uprate the 6986 Royster to Sycamore 69-kV line	2016**	2016	3	SBRM Project
44	Rebuild the Y-119 Sun Valley Tap to Oregon 69-kV line	2016**	2016	3	SBRM Project
45	Stagecoach - Wick Drive 69-kV line rebuild Y-62	2016**	2016	3	SBRM Project
46	Beardsley St. Substation: Install 3 69-kV line breakers to sectionalize 69-kV circuit J-10	2016***	2016	4	Enhance operational flexibility
47	Pulliam - Glory Road 138-kV line conversion K-115	2016***	2016	4	Conversion project consists of network upgrades needed for Green Bay load increase
48	Pulliam Substation: Install a new 138/69-kV transformer	2016***	2016	4	Part of K-115 Conversion
49	Glory Road Substation: Install a new 138/69-kV transformer	2016***	2016	4	Part of K-115 Conversion
50	Granville - Tamarack 138-kV line rebuild 3444	2016**	2016	5	SBRM Project
51	Racine - St. Rita 138-kV line uprate 8531	2016**	2016	5	SBRM Project
52	Port Washington - Saukville 138-kV line re-conductor 742	2016**	2016	5	SBRM Project

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53	Port Washington - Saukville 138-kV line re-conductor 762	2016**	2016	5	SBRM Project
54	Morrison Ave - Sherman 115-kV line re-conductor Z-52	2016**	2016	1	SBRM Project
55	Rebuild Arcadian-Waukesha 138-kV lines KK9942/KK9962	2016	2016	5	
56	Rocky Run - Plover 115-kV line uprate S-45	2016**	2016	1	SBRM Project
57	Wautoma - Wild Rose Pumping 69-kV line rebuild Y-19	2016**	2016	1	SBRM Project
58	North Fond Du Lac - Metomen 69-kV line uprate Y-27	2016**	2016	1	SBRM Project
59	Crystal Falls - Aspen 69-kV line re-conductor ASPY51	2016**	2016	2	SBRM Project
60	Danz Ave - University 69-kV line rebuild O-15	2016**	2016	4	SBRM Project
61	Pflaum - Royster 69-kV line rebuild 6934	2016**	2016	3	SBRM Project
62	Whitewater - University 138-kV line uprate 4453	2016**	2016	3	SBRM Project
63	Rock Springs Tap - Kirkwood 138-kV line uprate X-70	2016**	2016	3	SBRM Project
64	Pleasant Prairie - Zion 345-kV line uprate 2221	2016**	2016	5	SBRM Project
65	Fitchburg - Nine Springs 69-kV line rebuild 6943	2016**	2016	3	SBRM Project
66	Oak Creek - St. Rita 138-kV line re-conductor 885	2016**	2016	5	SBRM Project
67	Racine - Oak Creek 138-kV line re-conductor 812	2016**	2016	5	SBRM Project
68	Ramsey - Barland 138-kV line re-conductor NWHG41	2016**	2016	5	SBRM Project
69	Bain - Albers 138-kV line uprate 63143	2016**	2016	5	SBRM Project
70	McCue - Lamar 69-kV line rebuild Y-171	2016**	2016	3	SBRM Project
71	Oak Creek-Pennsylvania 138-kV line re-conductor 837	2016**	2016	5	SBRM Project was 2018, now 2016
72	Oak Creek-Bluemound 230-kV line re-conductor 862	2016**	2016	5	SBRM Project
73	Oak Creek-Bluemound 230-kV line re-conductor 873	2016**	2016	5	SBRM Project was 2018, now 2016
74	Rock Springs - Artesian 138-kV line rebuild X-70	2016	2016	3	SBRM Project was 2024, now 2016
75	Bay Lake: Morgan - Stiles 138-kV circuit de-bifurcate to form 2 separate 138-kV lines	2017***	2017	4	
76	Bay Lake: North Appleton Substation -- Construct new 345-kV and 138-kV switchyards	2017***	2017	4	
77	Bay Lake: Morgan Substation -- reconfigure and expand 345-kV and 138-kV switchyards	2017***	2017	4	
78	Bay Lake: North Appleton - Morgan 138 kV line construction	2017***	2017	4	
79	Bay Lake: Holmes - Old Mead Road 138-kV project	2016-2018***	2017	2	
80	Bay Lake: North Appleton - Morgan 345 kV line construction	2016-2018***	2017	4	
81	Canal Substation: Install redundant bus differentials on 138-kV buses	2017	2017	4	Project developed as a result of the NERC Category C.9 analysis was 2014, now 2017
82	Waunakee - Westport 69-kV line rebuild Y-131	2017**	2017	3	SBRM Project
83	Canal Substation: Install 138-kV and 69-kV breakers on 138/69-kV transformers	2017***	2017	4	
84	Highway V Substation: Install 138-kV and 69-kV breakers on 138/69-kV transformers	2017***	2017	4	
85	Uprate 6927 West Middleton-Stage Coach 69-kV line	2018**	2018	3	was 2016, now 2018
86	Uprate Y87 North Monroe-South Monroe 69-kV line	2018**	2018	3	SBRM Project
87	Badger Coulee: La Crosse area - North Madison - Cardinal 345-kV line construction	2018***	2018	3	
88	Uprate X-67 Portage-Trienda 138-kV line	2018**	2018	3	SBRM Project
89	Construct Fairwater-Mackford Prairie 69-kV line	>2028	2018	1	
90	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	>2028	2018	1	
91	Install a second 100 MVA 138/69 kV transformer at Hillman Substation	>2028	2018	3	
92	University - Sugar Creek 138-kV line uprate 6552	2018**	2018	3	SBRM Project
93	Rebuild Y-32 Colley Road-Brick Church 69-kV line	2018*	2018	3	
94	Cardinal Bluffs: Dubuque County area - Cardinal 345-kV line construction	2018***	2018	3	
95	Branch River Substation: Construct new 345-kV switching station	2018	2018	4	May be part of the smaller project to replace BBR
96	Point Beach Substation: Install new series 345-kV breaker for circuit Q-303	2018	2018	4	May be part of the smaller project to replace BBR
97	Uprate Winneconne-Sunset Point 69-kV line Y-103	2019	2019	1	was 2016, now 2019
98	Bunker Hill-Black Brook 115-kV line rebuild	2019**	2019	1	SBRM Project Independent of MISO Northern Area Study
99	Atlantic Substation: Reconfigure	2019	2019	2	Enhance operational flexibility and reliability in the area
100	Construct a new Spring Valley-North Lake Geneva 138-kV circuit	2019	2019	3 & 5	Project at proposed state
101	Construct a new 138/69-kV substation on Spring Valley - North Lake Geneva 138-kV circuit	2019	2019	3 & 5	Part of Spring Valley-Lake Geneva Project
102	Construct a new 69-kV circuit from Twin Lakes to the new substation	2019	2019	3 & 5	Part of Spring Valley-Lake Geneva Project

Preliminary as of May 3, 2013

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103	Uprate the Bain - Spring Valley 138-kV circuit	2019	2019	3 & 5	Part of Spring Valley-Lake Geneva Project
104	Uprate the Twin Lakes - Katzenberg 69-kV circuit	2019	2019	3 & 5	Part of Spring Valley-Lake Geneva Project
105	Gran Grae - Boscobel 69-kV line rebuild Y-40	2019**	2019	3	SBRM Project
106	Victoria-Winona 69 kV line construction	2019	2019	2	
107	Presque Isle - Tilden 138 kV line loop into National and uprate National - Tilden 138 kV line	2019	2019	2	
108	Boscobel - Muscodia 69-kV line rebuild Y-124	2020**	2020	3	SBRM Project was 2016, now 2020
109	Replace two existing 345/138-kV transformers at Arcadian Substation with 2-500 MVA transformers	>2028	2020	5	
110	Wesmark Substation: Install 2-8 Mvar 69-kV capacitor banks	2020	2020	4	
111	Install 2-24.5 Mvar 138-kV capacitor bank and 1-18 Mvar 69-kV capacitor bank at Brick Church substation	2014	2021	3	
112	Construct Shoto to Custer 138-kV line	2024	2022	4	
113	Install 138/69-kV transformer at Custer Substation	2024	2022	4	
114	Winona - Atlantic 69-kV line rebuild Winona69	2022	2022	2	was 2016, now 2022
115	Install a second 138/69-kV transformer at Spring Green with a 100 MVA summer normal rating	2028	2024	3	was 2018, now 2024
116	Construct Cardinal-Blount 138-kV line	>2028	2024	3	was 2020, now 2024
117	Rebuild West Middleton-Pheasant Branch 69-kV line with double circuits to achieve a 240 MVA SE on each circuit	2027	2025	3	was 2022, now 2025
118	Portage - Columbia 138-kV line rebuild X-13	2025	2025	3	
119	Portage - Columbia 138-kV line rebuild X-20	2025	2025	3	
120	Center St - South Beaver Dam 69-kV line uprate Y-59	2025	2026	3	
121	Replace two existing 138/69-kV transformers at Glenview Substation with 100 MVA transformers	>2028	TBD	4	
122	Munising-Seney-Blanney Park 69-kV uprate and asset renewal	>2020	TBD	2	U.P. Collaborative
123					
124					
125	Legend				
126	* = dates based on approved project scope ISDs				
127	** = SBRM Study Need Year				
128	*** = Other Major Project Study need year				
129					
130	No Shading = No change to project since previous Assessment				
131	Orange Shading = new project, was not in previous Assessment project list				
132	Gray Shading = some change (e.g. In-service year or scope) since previous Assessment				

2013 10-Year Assessment Preliminary Cancellations

	A	B	C
1	System Addition	Previous Assessment Projected In-Service Year	Planning Zone
2	Replace 138/69-kV transformer at Metomen Substation	2017	1
3	Bay Lake: Plains Substation -- reconfigure and expand 345-kV switchyard and install new 300 MVA 345/138-kV transformer	2017	2
4	Bay Lake: Plains Substation -- Install a 150 Mvar 345kV SVC	2017	2
5	Bay Lake: Morgan - Plains 345 kV line construction	2016-2018	2 & 4
6	Bay Lake: Plains - National 345 kV line construction	2016-2018	2
7	Upgrade 4.1 Mvar capacitor bank to 8.2 Mvar and install a new 8.2 Mvar capacitor bank at Ripon 69-kV Substation	2018	1
8	Forest Junction - Howards Grove and a portion of the Howards Grove - Holland 138-kV circuits convert to 345-kV	2018	4
9	Barnhart Substation: Construct new 345/138-kV substation with new 500 MVA 345/138-kV transformer	2018	4
10	Edgewater-Cedarsauk 345-kV circuit uprate	2018	4
11	Barnhart - Plymouth - Howards Grove - Erdman 138-kV line construction	2018	4
12	Bay Lake: National Substation -- Install a 100 Mvar 138kV SVC	2018	2
13	Bay Lake: National Substation -- Install new 345-kV and 138-kV switchyards and install 2 new 500 MVA 345/138-kV transformers	2018	2
14	Construct a Lake Delton-Birchwood 138-kV line	2020	3
15	Uprate Y159 Brick Church-Walworth 69-kV line to 115 MVA	2021	3
16	Install 2-16.33 Mvar 69-kV capacitor banks at North Monroe	2021	3
17	Install 1-16.33 Mvar 69-kV capacitor bank at Verona Substation	2021	3
18	Replace existing 56 MVA Harrison 138/69-kV transformer with a 100 MVA transformer	2022	1
19	Convert Necedah distribution substation from 69 kV to 138 kV	2022	1
20	Replace existing Caroline 115/69-kV transformer	2022	1
21	Install a second 138/69-kV transformer at Wautoma Substation	2022	1
22	Construct 69-kV double-circuit line between McCue and Lamar substations	2022	3
23	Install 2-16.33 Mvar 69-kV capacitor banks at Eden Substation	2022	3
24	Install 2-16.33 Mvar 69-kV capacitor banks at Sun Prairie	2022	3
25	Construct a Hubbard-East Beaver Dam 138-kV line	2022	3
26	Install 2-16.33 Mvar 69-kV capacitor banks at Dam Heights	2023	3
27	Install 4-49 Mvar 138-kV capacitor banks at Concord Substation	2023	3
28	Install 2-12.25 Mvar 69-kV capacitor banks at Mazomanie Substation	2023	3
29	Replace two existing 138/69-kV transformers at Sunset Point Substation with 100 MVA transformers	2024	4