

ATC 2012 10-Year Assessment Network Project List

System Additions	Network Need Year	Projected In-Service Year	Planning Zone	Need Category	Planned, Proposed or Provisional
Relocate Engadine 69-kV load	2011	2012	2	reliability (69B2)	Planned
Rebuild M38-Atlantic 69-kV line	2011	2013	2	reliability (69B2)	Planned
Construct 345-kV line from Rockdale to Cardinal	2013*	2013	3	reliability (B2, C5)	Planned
Construct a 345-kV bus and install a 345/138 kV 500 MVA transformer at Cardinal Substation	2013*	2013	3	reliability (B2, C5)	Planned
Install 2-16.33 Mvar 69-kV capacitor banks at Nine Springs Substation	2008*	2013	3	reliability (69B2)	Planned
Uprate Fitchburg-Nine Springs 69-kV and Royster-Pflaum 69-kV lines and move AGA load to the Royster-Femrite 69-kV line	2008*	2013	3	reliability (69B2)	Planned
Rebuild Pleasant Prairie 345-kV bus	2013	2013	5	operating flexibility	Planned
Straits Substation: Install redundant bus differentials on 138-kV buses	2013***	2013	2	reliability (C9)	Planned
Christiana Substation: Install redundant bus differentials on 138-kV buses	2013***	2013	3	reliability (C9)	Planned
Rockdale substation: Install redundant bus differentials on 345-kV and 138-kV buses	2013***	2013	3	reliability (C9)	Planned
Construct Pleasant Prairie-Zion Energy Center 345-kV line	2014	2013	5	economics	Planned
Construct Monroe County-Council Creek 161-kV line and Timberwolf 69-kV switching station	2013	2014	1	economics, reliability (B2, C3)	Planned
Install a 161/138-kV transformer at Council Creek Substation	2013	2014	1	economics, reliability (B2, C3)	Planned
Uprate Council Creek-Petenwell 138-kV line	2013	2014	1	economics, reliability (B2)	Planned
Rebuild Straits-Pine River lines 6904/5 for 138 kV and operate at 69 kV	2014	2014	2	reliability (B2)	Planned
Install power flow control near Straits 138-kV Substation	2010	2014	2	reliability (B1)	Planned
Energize Hiawatha-Indian Lake at 138 kV	2014	2014	2	reliability (B2)	Proposed
Paddock - Town Line Road 138-kV single circuit rebuild X-39	2014	2014	3	economics, reliability, asset renewal	Proposed

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Construct Old Mead Rd-Chandler double circuit 138-kV lines and operate at 138/69	2014	2014	2	reliability (69B3), economics	Proposed
Construct Old Mead Rd 138/69-kV Substation and install one 138/69-kV transformer	2014	2014	2	reliability (69B3)	Proposed
Install 2-4.08 Mvar 69-kV capacitor banks at Old Mead Rd	2014	2014	2	reliability (69B3)	Proposed
West Middleton - West Towne 69-kV line rebuild 6997	2014**	2014	3	reliability (B2)	Planned
Paddock - Shaw 69-kV line rebuild Y-54	2014**	2014	3	reliability (B2)	Planned
Uprate Ripon-Northwest Ripon 69-kV line Y-93	2014**	2014	1	reliability (69B2)	Proposed
Branch - Kansas 138-kV line uprate 42152	2014**	2014	5	reliability (B2)	Planned
Albers - Kenosha 138-kV line re-conductor 9352	2014**	2014	5	reliability (B2)	Planned
Oak Creek - Ramsey 138-kV line re-conductor 824	2014**	2014	5	reliability (B2)	Planned
Nicholson - Barland 138-kV line rebuild OACG48	2014**	2014	5	reliability (B2)	Planned
Kenosha - Lakeview 138-kV line rebuild 9341	2014**	2014	5	reliability (B2)	Planned
Omro - Berlin 69-kV line rebuild Y-80	2014**	2014	1	reliability (B2)	Planned
Construct a new Arnold 345-kV Substation and install a 345/138-kV transformer	2015	2014	2	reliability (B1)	Planned
Portage Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	3	reliability (C9)	Proposed
Presque Isle Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	2	reliability (C9)	Proposed
Canal Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	4	reliability (C9)	Proposed
Saukville Substation: Install redundant bus differentials on 138-kV buses	2014***	2014	5	reliability (C9)	Proposed
Reconfigure 138-kV bus and replace 138/69-kV transformer at Petenwell	2015*	2015	1	reliability (A, 69B2)	Proposed

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Empire - Presque Isle 138-kV line uprate Goose Lake	2015**	2015	2	reliability (B2)	Proposed
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	reliability (69B2)	Provisional
96th St Substation: Construct an 8-position ring bus	2015*	2015	5	road relocation	Planned
Manrap - Custer 69-kV line uprate Y-MRP11	2015**	2015	4	reliability (B2)	Proposed
Construct 138-kV lines to serve Milwaukee County T-D interconnection	2015	2015	5	T-D interconnection	Proposed
Chaffee Creek - ACEC Coloma Tap 69-kV line rebuild Y-18	2015**	2015	1	reliability (B2)	Proposed
Castle Rock-Mckenna 69-kV line uprate Y-47	2015**	2015	1	reliability (69B2, 69B3)	Proposed
Fitzgerald Substation: Install 2nd 345/138-kV transformer	2015*	2015	4	operating flexibility, reliability (B3 with prior maintenance)	Provisional
Uprate Seney-Blaney Park 69-kV line and minimal asset renewal work	> 2027	2015	2	reliability (69B2)	Provisional
Bay Lake: Morgan - Stiles 138-kV circuit de-bifurcate to form 2 separate 138-kV lines	2016***	2016	4	reliability (various TPL categories)	Proposed
Uprate 6927 West Middleton-Stage Coach 69-kV line	2016**	2016	3	reliability (69B2, 69B3)	Provisional
Uprate the 6986 Royster to Sycamore 69-kV line	2016**	2016	3	reliability (69B3)	Proposed
Uprate Y87 North Monroe-South Monroe 69-kV line	2016**	2016	3	reliability (69B2)	Provisional
Rebuild the Y-119 Sun Valley Tap to Oregon 69-kV line	2016**	2016	3	reliability, condition (69B3, 69C3)	Provisional
Stagecoach - Wick Drive 69-kV line rebuild Y-62	2016**	2016	3	reliability (B2)	Proposed
Beardsley St. Substation: Install 3 69-kV line breakers to sectionalize 69-kV circuit J-10	2016***	2016	4	operating flexibility	Provisional
Pulliam - Glory Road 138-kV line conversion K-115	2016***	2016	4	reliability (69C3)	Proposed
Pulliam Substation: Install a new 138/69-kV transformer	2016***	2016	4	reliability (69C3)	Proposed

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Glory Road Substation: Install a new 138/69-kV transformer	2016***	2016	4	reliability (69C3)	Proposed
Uprate Winneconne-Sunset Point 69-kV line Y-103	2016**	2016	1	reliability (69B2)	Proposed
Granville - Tamarack 138-kV line rebuild 3444	2016**	2016	5	reliability (B2)	Proposed
Racine - St. Rita 138-kV line uprate 8531	2016**	2016	5	reliability (B2)	
Port Washington - Saukville 138-kV line re-conductor 742	2016**	2016	5	reliability (B2)	Proposed
Port Washington - Saukville 138-kV line re-conductor 762	2016**	2016	5	reliability (B2)	Proposed
Morrison Ave - Sherman 115-kV line re-conductor Z-52	2016**	2016	1	reliability (B2)	Proposed
Rebuild Arcadian-Waukesha 138-kV lines KK9942/KK9962	2016	2016	5	reliability (B2)	Proposed
Rocky Run - Plover 115-kV line uprate S-45	2016**	2016	1	reliability (B2)	Proposed
Wautoma - Wild Rose Pumping 69-kV line rebuild Y-19	2016**	2016	1	reliability (B2)	Proposed
North Fond Du Lac - Metomen 69-kV line uprate Y-27	2016**	2016	1	reliability (B2)	
Boscobel - Muscoda 69-kV line rebuild Y-124	2016**	2016	3	reliability (B2)	
Crystal Falls - Aspen 69-kV line re-conductor ASPY51	2016**	2016	2	reliability (B2)	Proposed
Danz Ave - University 69-kV line rebuild O-15	2016**	2016	4	reliability (B2)	Proposed
Pflaumn - Royster 69-kV line rebuild 6934	2016**	2016	3	reliability (B2)	Proposed
Whitewater - University 138-kV line uprate 4453	2016**	2016	3	reliability (B2)	Proposed
Rock Springs Tap - Kirkwood 138-kV line uprate X-70	2016**	2016	3	reliability (B2)	
Pleasant Prairie - Zion 345-kV line uprate 2221	2016**	2016	5	reliability (B2)	

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Fitchburg - Nine Springs 69-kV line rebuild 6943	2016**	2016	3	reliability (B2)	Proposed
Waunakee - Westport 69-kV line rebuild Y-131	2016**	2016	3	reliability (B2)	Proposed
Oak Creek - St. Rita 138-kV line re-conductor 885	2016**	2016	5	reliability (B2)	
Racine - Oak Creek 138-kV line re-conductor 812	2016**	2016	5	reliability (B2)	
Ramsey - Barland 138-kV line re-conductor NWHG41	2016**	2016	5	reliability (B2)	Proposed
Bain - Albers 138-kV line uprate 63143	2016**	2016	5	reliability (B2)	
McCue - Redhawk Tap 69-kV line rebuild Y-171	2016**	2016	3	reliability (B2)	
Bay Lake: Green Bay Substation -- Construct new 345-kV and 138-kV switchyards	2016***	2016	4	reliability (various TPL categories)	Proposed
Bay Lake: Morgan Substation -- reconfigure and expand 345-kV and 138-kV switchyards	2016***	2016	4	reliability (various TPL categories)	Proposed
Bay Lake: Green Bay - Morgan 138 kV line construction	2016***	2016	4	reliability (various TPL categories)	Proposed
Winona - Atlantic 69-kV line rebuild Winona69	2016**	2016	2	reliability	Provisional
Bay Lake: Green Bay - Morgan - Plains - National 345 kV line construction	2016-2018***	2016-2018	2 & 4	reliability (various TPL categories)	Proposed
Bay Lake: Holmes - Escanaba 138-kV two circuit project	2016-2018***	2016-2018	2	reliability (various TPL categories)	Proposed
Bay Lake: Plains Substation -- Install a 150 Mvar 345kV SVC	2017***	2017	2	reliability (various TPL categories)	Proposed
Bay Lake: Plains Substation -- reconfigure and expand 345-kV switchyard and install new 300 MVA 345/138-kV transformer	2017***	2017	2	reliability (various TPL categories)	Proposed
Canal Substation: Install 138-kV and 69-kV breakers on 138/69-kV transformers	2017***	2017	4	operating flexibility, reliability (69B3 with prior maintenance)	Provisional
Highway V Substation: Install 138-kV and 69-kV breakers on 138/69-kV transformers	2017***	2017	4	operating flexibility, reliability (69B3 with prior maintenance)	Provisional

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Replace 138/69-kV transformer at Metomen Substation	2017	2017	1	reliability (A, 69B3)	Proposed
Badger Coulee: La Crosse area - North Madison - Cardinal 345-kV line construction	2018***	2018	3	Reliability, economics and policy benefits	Proposed
Bay Lake: National Substation -- Install a 100 Mvar 138kV SVC	2018***	2018	2	reliability (various TPL categories)	Proposed
Bay Lake: Presque Isle - Tilden 138 kV line loop into National and upgrade National - Tilden 138 kV line	2018***	2018	2	reliability (various TPL categories)	Proposed
Bay Lake: National Substation -- Install new 345-kV and 138-kV switchyards and install 2 new 500 MVA 345/138-kV transformers	2018***	2018	2	reliability (various TPL categories)	Proposed
Uprate X-67 Portage-Trienda 138-kV line	2018**	2018	3	reliability (69B2)	Provisional
Oak Creek-Pennsylvania 138-kV line re-conductor 837	2018**	2018	5	reliability (B2)	Proposed
Upgrade 4.1 Mvar capacitor bank to 8.2 Mvar and install a new 8.2 Mvar capacitor bank at Ripon 69-kV Substation	>2027	2018	1	reliability (69B2)	Provisional
Construct Fairwater-Mackford Prairie 69-kV line	>2027	2018	1	reliability (69B2)	Provisional
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	>2027	2018	1	reliability (69B2), condition	Provisional
Forest Junction - Howards Grove and a portion of the Howards Grove - Holland 138-kV circuits convert to 345-kV	2018	2018	4	new generation	Proposed
Barnhart Substation: Construct new 345/138-kV substation with new 500 MVA 345/138-kV transformer	2018	2018	4	new generation	Proposed
Branch River Substation: Construct new 345-kV switching station	2018	2018	4	new generation	Proposed
Edgewater-Cedarsauk 345-kV circuit uprate	2018	2018	4	new generation	Proposed
Barnhart - Plymouth - Howards Grove - Erdman 138-kV line construction	2018	2018	4	new generation	Proposed
Point Beach Substation: Install new series 345-kV breaker for circuit Q-303	2018	2018	4	new generation	Proposed
Install a second 100 MVA 138/69 kV transformer at Hillman Substation	>2027	2018	3	reliability (69B2, 69B3)	Provisional

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Install a second 138/69-kV transformer at Spring Green with a 100 MVA summer normal rating	2019	2018	3	reliability (69B3)	Provisional
University - Sugar Creek 138-kV line uprate 6552	2018**	2018	3	reliability (B2)	
Oak Creek-Bluemound 230-kV line re-conductor 873	2018**	2018	5	reliability (B2)	Proposed
Rebuild Y-32 Colley Road-Brick Church 69-kV line	2021	2018	3	reliability (B2, 69B3, 69C5, C3) condition	Provisional
Cardinal Bluffs: Dubuque County area - Cardinal 345-kV line construction	2019***	2019	3	Reliability, economics and policy benefits	Proposed
Construct a new Spring Valley-North Lake Geneva 138-kV circuit	2020	2019	3 & 5	T-D interconnection, reliability (69B2)	Proposed
Construct a new 138/69-kV substation on Spring Valley - North Lake Geneva 138-kV circuit	2020	2019	3 & 5	T-D interconnection, reliability (69B2)	Proposed
Construct a new 69-kV circuit from Twin Lakes to the new substation	2020	2019	3 & 5	T-D interconnection, reliability (69B2)	Proposed
Uprate the Bain - Spring Valley 138-kV circuit	2020	2019	3 & 5	T-D interconnection, reliability (69B2)	Proposed
Uprate the Twin Lakes - Katzenberg 69-kV circuit	2020	2019	3 & 5	T-D interconnection, reliability (69B2)	Proposed
Gran Grae - Boscobel 69-kV line rebuild Y-40	2019**	2019	3	reliability (B2)	
Construct Cardinal-Blount 138-kV line	2020	2020	3	reliability (C5)	Provisional
Construct a Lake Delton-Birchwood 138-kV line	>2027	2020	3	reliability (B2)	Provisional
Replace two existing 345/138-kV transformers at Arcadian Substation with 1-500 MVA transformer	>2027	2020	5	reliability (B3)	Provisional
Uprate Y159 Brick Church-Walworth 69-kV line to 115 MVA	>2027	2021	3	reliability (69B2)	Provisional
Install 2-24.5 Mvar 138-kV capacitor bank and 1-18 Mvar 69-kV capacitor bank at Brick Church substation	2021	2021	3	reliability (69B2)	Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at North Monroe	>2027	2021	3	reliability (B2)	Provisional
Install 1-16.33 Mvar 69-kV capacitor bank at Verona Substation	>2027	2021	3	reliability (A, B2, B3)	Provisional



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Replace existing 56 MVA Harrison 138/69-kV transformer with a 100 MVA transformer	>2027	2022	1	reliability (A)	Provisional
Install a second 138/69-kV transformer at Wautoma Substation	>2027	2022	1	reliability (A, 69B2)	Provisional
Convert Necedah distribution substation from 69 kV to 138 kV	>2027	2022	1	reliability (69B2, 69B3)	Provisional
Replace existing Caroline 115/69-kV transformer	>2027	2022	1	reliability (69B3)	Provisional
Construct Shoto to Custer 138-kV line	>2027	2022	4	reliability (69B2, 69B3)	Provisional
Install 138/69-kV transformer at Custer Substation	>2027	2022	4	reliability (69B2, 69B3)	Provisional
Construct 69-kV double-circuit line between McCue and Lamar substations	>2027	2022	3	reliability (A, 69B2)	Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at Eden Substation	>2027	2022	3	reliability (A, B2)	Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at Sun Prairie	>2027	2022	3	reliability (69B2, 69B3)	Provisional
Construct a Hubbard-East Beaver Dam 138-kV line	>2027	2022	3	reliability (B2)	Provisional
Rebuild West Middleton-Pheasant Branch 69-kV line with double circuits to achieve a 240 MVA SE on each circuit	>2027	2022	3	reliability (69B2)	Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at Dam Heights	>2027	2023	3	reliability (69B2)	Provisional
Install 4-49 Mvar 138-kV capacitor banks at Concord Substation	>2027	2023	3	reliability (B2)	Provisional
Install 2-12.25 Mvar 69-kV capacitor banks at Mazomanie Substation	>2027	2023	3	reliability (69B2)	Provisional
Replace two existing 138/69-kV transformers at Sunset Point Substation with 100 MVA transformers	>2027	2024	4	reliability (69B3)	Provisional
Rock Springs - Artesian 138-kV line rebuild X-70	2024	2024	3	reliability (B2)	Provisional
Replace two existing 138/69-kV transformers at Glenview Substation with 100 MVA transformers	>2027	2025	4	reliability (69B3)	Provisional
Portage - Columbia 138-kV line rebuild X-13	2025	2025	3	reliability (B2)	Provisional



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Portage - Columbia 138-kV line rebuild X-20	2025	2025	3	reliability (B2)	Provisional
Center St - South Beaver Dam 69-kV line uprate Y-59	2026	2026	3	reliability (B2)	Provisional

Legend
* = dates based on approved project scope ISDs
** = SBRM Study Need Year
*** = Other Major Project Study need year
No Shading = No change to project since previous Assessment
Orange Shading = new project, was not in previous Assessment project list
Gray Shading = some change (e.g. In-service year or scope) since previous Assessment