

Table PR-23**Summary of Cancellations, Deferrals, Changes, Possible Changes and New Projects for the 2008 10-Year Assessment**

PROJECTS CANCELED	Former In-Service Date	Planning Zone	Reason for Removal
Install two 69-kV breakers at Beardsley Street Substation	2010	4	Updated study results
Reconductor Pulliam-Danz 69-kV line	2015	4	Updated study results
Reconductor Danz-Henry Street 69-kV line	2015	4	Updated study results
Reconductor Pulliam-Van Buren 69-kV line	2015	4	Updated study results
Construct a Northside-City Limits 138-kV line	2016	4	Updated study results
Install second 345/138-kV transformer at Plains Substation	2009	2	Updated model information
Install 1-5.4 MVAR capacitor bank at MTU or Henry Street 69-kV Substation	TBD	2	Updated study results
Upgrade the existing 2-8.16 MVAR to 2-16.33 MVAR capacitor banks at South Lake Geneva Substation	2010	3	Updated load/model information
Loop the Deforest to Token Creek 69-kV line into the Yahara River Substation and install a 138/69-kV transformer at Yahara River	2014	3	Updated load/model information
Uprate Yahara River-Token Creek 69-kV line	2014	3	Updated load/model information
Uprate Gardner Park-Black Brook 115-kV line - scope TBD	2012	1	Equipment replaced during construction of another project
Rebuild/convert Holmes-Chandler 69 kV to 138-kV operation	2013	2 & 4	Updated load/model information
Replace the existing 138/69-kV transformer at South Sheboygan Falls Substation with 100 MVA transformer	2018	4	Updated load/model information
Rebuild Hiawatha-Pine River 69-kV line ESE_6908	TBD	2	Upper Peninsula collaborative currently underway to identify best area solution.
Construct new Mackinac 138/69-kV Substation	TBD	2	Upper Peninsula collaborative currently underway to identify best area solution.
Replace the 400 amp metering CT at North Mullet River 69-kV Substation	2011	4	Updated model information

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PROJECTS DEFERRED	New date	Planning Zone	Reason for Deferral
Construct ring bus at the Pine River 69-kV Substation and replace 1-5.4 MVAR capacitor bank with 2-4.08 MVAR banks	2009	2	was 2008; revised resource scheduling
Relocate Mishicot 138-kV Substation	2009	4	was 2007; deferred due to the delay of G384.
Replace 138/69-kV transformer at Metomen Substation	2013	1	was 2010; deferred because of updated load forecasts.
Increase ground clearance of M38-Atlantic 69-kV line from 120 to 167 degrees F	2013	2	was 2009; review of physical condition required (may require a rebuild)
Construct a 69-kV line from SW Ripon to the Ripon-Metomen 69-kV line	2014	1	was 2013; customer deferred distribution project by one year.
Rebuild Blaney Park-Munising 69 kV to 138 kV	2014	2	was 2013; continuation of review of performance, condition and need
Install 2-32 Mvar capacitor banks at Mukwonago 138-kV Substation	2014	5	was 2011; need for area voltage support decreased as a result of capacitors added at Bluemound and Summit.
Construct a Lake Delton-Birchwood 138-kV line	2015	3	was 2013; load forecast change in the Reedsburg loop area
Replace the existing 46 MVA Hillman 138/69-kV transformer with a 100 MVA transformer	2015	3	was 2013; load forecast change in the Hillman area
Uprate Columbia 345/138-kV transformer T-22 to 527 MVA	2015	3	was 2013; load forecast change in Sauk and Columbia counties and reactive reinforcement projects developed in the area
Uprate Y159 Brick Church-Walworth 69-kV line to 115 MVA	2015	3	was 2011; load forecast change in the Lake Geneva area
Install 2-16.3 MVAR capacitor bank at Mears Corners 138-kV Substation	2015	4	was 2011; deferred due to updated load model
Install 2-16.3 MVAR capacitor bank at Rosiere 138-kV Substation	2015	4	was 2011; deferred due to updated load model.
Upgrade 4.1 MVAR capacitor bank to 8.2 MVAR and install a new 8.2 MVAR capacitor bank at Ripon 69-kV Substation	2016	1	was 2011; deferred because of updated load forecasts.

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PROJECTS DEFERRED (continued)	New date	Planning Zone	Reason for Deferral
Install a second 138/69-kV transformer at McCue Substation	2016	3	was 2014; deferred due to load forecast change in the McCue area and other new project developments in this area
Install 138/69-kV transformer at Custer Substation	2016	4	was 2014; deferred due to updated generation dispatch information
Construct Shoto to Custer 138-kV line	2016	4	was 2014; deferred due to updated generation dispatch information
Uprate the Melissa-Tayco to 229 MVA (300F)	2016	4	was 2014; deferred due to updated load model
Install 28.8 MVAR capacitor bank at Butternut 138-kV Substation	2016	4	was 2015; deferred due to updated load model
Install a second 138/69-kV transformer at Wautoma Substation	2017	1	was 2015; deferred because of updated load forecasts.
Construct Fairwater-Mackford Prairie 69-kV line	2018	1	was 2014; deferred because of updated load forecasts.
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	1	was 2014; deferred because of updated load forecasts.
Construct a 345-kV bus, install a 345/138-kV 500 MVA transformer at North Randolph and loop the Columbia to South Fond du Lac 345-kV line into the substation	2018	3	was 2014; deferred due to load forecast changes in Sauk and Columbia counties and reactive reinforcement projects developed in the area
Replace two existing 138/69-kV transformers at Sunset Point Substation with 100 MVA transformers	2018	4	was 2015; deferred due to updated load model
Install 2-16.3 MVAR capacitor bank at Aviation Substation	2018	4	was 2015; deferred due to updated load model
Replace the 1200 A breaker at Edgewater T22 345/138-kV transformer	2018	4	was 2014; deferred due to updated load model
Install a 12.2 MVAR capacitor bank at Hilltop 69-kV Substation	2023	1	was 2016; deferred because of updated load model
Construct Evansville-Brooklyn 69-kV line	TBD	3	was 2016; no firm planning need driver identified in this Assessment

Table PR-23

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OTHER PROJECT CHANGES AND POSSIBLE CHANGES	Date	Planning Zone	Nature of Change or Update
Install 1-8.16 MVAR capacitor banks at the M38 138-kV Substation	2009	2	was TBD in-service date 2-8.16 banks; on the 69 kV due to updated load forecast in western U.P.
Install 1-4.08 MVAR capacitor banks at Osceola 69 kV	2009	2	was TBD in-service date 2-5.4 MVAR banks; due to updated load forecast in western U.P.
Install a 138/69-kV transformer at Bass Creek Substation	2013	3	Status was changed from provisional to proposed
Rebuild/reconductor X-12 Town Line Road-Bass Creek 138-kV line	2013	3	Status was changed from provisional to proposed
Construct new 138-kV line from North Lake Geneva to South Lake Geneva	2014	3	was 2016; date accelerated due to updated study results
Construct new 138-kV bus and install a 138/69-kV 100 MVA transformer at South Lake Geneva Substation	2014	3	was 2016; date accelerated due to updated study results
Install 1-16.33 MVAR 69-kV capacitor bank at Verona Substation	2014	3	capacitor banks were previously at Montrose, moved to Verona due to updated study results
Construct West Middleton-Blount 138-kV line	2017	3	In-service date was previously to be determined, 2017 in-service date due to updated study results
NEW PROJECTS	In-Service Date	Planning Zone	Reason for Project
Install a total of 6.3 MVAR distribution capacitor banks at Dickinson Substation	2008	3	reliability
Uprate the Delta-North Bluff 69-kV line summer normal and emergency ratings from 120 deg F to 167 deg F	2009	2	reliability
Uprate the North Bluff-Gladstone 69-kV line summer normal and emergency ratings from 120 deg F to 167 deg F	2009	2	reliability

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NEW PROJECTS (continued)	In-Service Date	Planning Zone	Reason for Project
Uprate the Masonville-Gladstone 69-kV line summer normal and emergency ratings from 120 deg F to 167 deg F	2009	2	reliability
Uprate the Chandler-Masonville 69-kV line summer normal and emergency ratings from 120 deg F to 167 deg F	2009	2	reliability
Uprate Y-61 McCue-Lamar 69-kV line to achieve 300 deg F line ratings and install 2-12.45 Mvar 69 kV capacitor banks at Lamar Substation	2009	3	reliability
Rebuild Stoughton Substation bus	2009	3	reliability
Install 5.7 MVAR distribution capacitor bank at Union Townline 69-kV Substation	2009	3	reliability
Install a second 138-kV reserve auxiliary transformer (RAT) at Kewaunee and remove tertiary auxiliary transformer (TAT)	2009	4	reliability
Construct 138-kV bus section at Shorewood	2009	5	T-D interconnection
Construct 69-kV line from new Warrens Substation to the Council Creek-Tunnel City 69-kV line	2010	1	T-D interconnection
Rebuild Arpin-Rocky Run 345-kV line	2010	1	maintenance
Install 1-4.08 MVAR capacitor bank at North Bluff 69-kV Substation	2010	2	reliability
Uprate the Chandler-Delta #1 69-kV line summer emergency rating from 120 deg F to 167 deg F	2010	2	reliability
Uprate the Chandler-Delta #2 69-kV line summer emergency rating to from 120 deg F 167 deg F	2010	2	reliability
Uprate the Royster Substation terminals	2010	3	reliability
Upgrade Sheepskin capacitor bank from 10.8 MVAR to 16.2 MVAR	2010	3	reliability
Upgrade Bain-Albers 138-kV line	2010	5	reliability
Install 4-49 MVAR 138-kV capacitor banks at Concord Substation	2011	3	reliability, economics
Replace two existing 345/138-kV transformers at Arcadian Substation with 1-500 MVA transformer	2011	5	reliability

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NEW PROJECTS (continued)	In-Service Date	Planning Zone	Reason for Project
Install 2-24.5 Mvar 138-kV capacitor banks and 1-18 Mvar 69-kV capacitor bank at Brick Church Substation	2011	3	reliability
Reconfigure Kewaunee 345/138-kV switchyard and install a second 500 MVA 345/138-kV transformer	2011	4	reliability, condition
Construct 115-kV line from new Arnett Road Substation to the Clear Lake Substation	2012	1	T-D interconnection
Rebuild Y-32 Colley Road-Brick Church 69-kV line	2012	3	reliability, condition
Construct second Shorewood-Humboldt 138-kV underground cable	2012	5	reliability
Install a second 138/69-kV transformer at Spring Green with a 100 MVA summer normal rating	2013	3	reliability
Upgrade Bain-Kenosha 138-kV line	2013	5	reliability
Uprate X-23 Colley Road-Marine 138-kV line terminals	2014	3	reliability
Upgrade Oak Creek-Pennsylvania 138-kV line	2014	5	reliability
Rebuild part of the Y-8 Dane-Dam Heights 69-kV line	2015	3	reliability
Install 2-16.33 Mvar 69-kV capacitor banks at Sun Prairie	2016	3	reliability
Uprate the summer emergency rating of the Forsyth 138/69-kV transformer to 57 MVA	2017	2	reliability
Construct double-circuit line between McCue and Lamar substations	2017	3	reliability
Uprate Y-40 Gran Grae-Boscobel 69-kV line to achieve a 99 MVA summer emergency rating	2017	3	reliability
Install 2-16.33 Mvar 69-kV capacitor banks at Dam Heights	2017	3	reliability
Convert Necedah distribution substation from 69 kV to 138 kV	2018	1	reliability
Uprate Castle Rock-Mckenna 69-kV line	2018	1	reliability

Table PR-23

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NEW PROJECTS (continued)	In-Service Date	Planning Zone	Reason for Project
Install 2-16.33 Mvar 69-kV cap banks at North Monroe	2018	3	reliability
Construct Spring Valley-Twin Lakes-South Lake Geneva 138-kV line	2018	3 & 5	T-D interconnection, reliability
Install 2-16.33 Mvar 69-kV cap banks at Rio	2019	3	reliability
Construct Verona-North Monroe 138-kV line	TBD	3	reliability
Uprate 138-kV line from Kewaunee to East Krok	TBD	4	reliability
Reconductor Ramsey-Harbor 138-kV line	TBD	5	reliability