

Table PR-16
Zone 3 Transmission System Additions

System Additions	System Need Year	Projected In-Service Year	Planning Zone	Need Category	Planned, Proposed or Provisional
Rebuild Y-33 Brodhead to South Monroe 69-kV line	2011*	2011	3	reliability (B2, 69B2, 69B3)	Planned
Rebuild part of the Y-8 Dane-Dam Heights 69-kV line*	>2026	2012	3	reliability, asset renewal, potential T-D interconnection	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)	Proposed
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)	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	>2026	2015	3	reliability (69B2)	Provisional
Uprate 6927 West Middleton-Stage Coach 69-kV line to 106 MVA SE	>2026	2015	3	reliability (69B2, 69B3)	Provisional
Install 2-24.5 Mvar 138-kV capacitor bank and 1-18 Mvar 69-kV capacitor bank at Brick Church substation	>2026	2017	3	reliability (69B2)	Provisional
Uprate the 6986 Royster to Sycamore 69-kV line to 115 MVA	2018	2018	3	reliability (69B3)	Provisional
Install a second 100 MVA 138/69 kV transformer at Hillman Substation	>2026	2018	3	reliability (69B2, 69B3)	Provisional
Install a second 138/69-kV transformer at Spring Green with a 100 MVA summer normal rating	>2026	2018	3	reliability (69B3)	Provisional
Uprate Y87 North Monroe-South Monroe 69-kV line to 115 MVA SE	>2026	2018	3	reliability (69B2)	Provisional
Construct Badger Coulee 345-kV line	2018	2018	3	policy benefits	Proposed

Table PR-16 (continued)
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System Additions	System Need Year	Projected In-Service Year	Planning Zone	Need Category	Planned, Proposed or Provisional
Construct new 138-kV bus and install a 138/69-kV 100 MVA transformer at South Lake Geneva Substation	>2026	2018	3	reliability (69B2)	Provisional
Construct new 138-kV line from North Lake Geneva to South Lake Geneva Substation	>2026	2018	3	reliability (69B2), T-D interconnection	Provisional
Rebuild Y-32 Colley Road-Brick Church 69-kV line	>2026	2018	3	reliability (B2, 69B3, 69C5, C3) condition	Provisional
Construct 69-kV double-circuit line between McCue and Lamar substations	>2026	2019	3	reliability (A, 69B2)	Provisional
Install 2-16.33 MVAR 69-kV capacitor banks at Eden Substation	>2026	2019	3	reliability (A, B2)	Provisional
Construct Spring Valley-Twin Lakes-South Lake Geneva 138-kV line	2019	2019	3 & 5	T-D interconnection, reliability (69B2)	Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at Dam Heights	>2026	2019	3	reliability (69B2)	Provisional
Rebuild the Y-119 Sun Valley Tap to Oregon 69-kV line	>2026	2020	3	reliability, condition (69B3, 69C3)	Provisional
Construct Dubuque-Spring Green-Cardinal 345-kV line	2020	2020	3	policy benefits	Provisional
Construct Cardinal-Blount 138-kV line	>2026	2020	3	reliability (C5)	Provisional
Install 4-49 MVAR 138-kV capacitor banks at Concord Substation	>2026	2020	3	reliability (B2)	Provisional
Construct a Lake Delton-Birchwood 138-kV line	>2026	2020	3	reliability (B2)	Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at North Monroe	>2026	2021	3	reliability (B2)	Provisional
Install 1-16.33 MVAR 69-kV capacitor bank at Verona Substation	>2026	2021	3	reliability (A, B2, B3)	Provisional
Uprate Y159 Brick Church-Walworth 69-kV line to 115 MVA	>2026	2021	3	reliability (69B2)	Provisional

Table PR-16 (continued)
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System Additions	System Need Year	Projected In-Service Year	Planning Zone	Need Category	Planned, Proposed or Provisional
Install 2-16.33 Mvar 69-kV capacitor banks at Sun Prairie	>2026	2022	3	reliability (69B2, 69B3)	Provisional
Rebuild West Middleton-Pheasant Branch 69-kV line with double circuits to achieve a 240 MVA SE on each circuit	2022	2022	3	reliability (69B2)	Provisional
Construct a Hubbard-East Beaver Dam 138-kV line	>2026	2022	3	reliability (B2)	Provisional
Uprate X-67 Portage-Trienda 138-kV line to 373 MVA	>2026	2022	3	reliability (69B2)	Provisional
Install 2-12.25 MVAR 69-kV capacitor banks at Mazomanie Substation	>2026	2023	3	reliability (69B2)	Provisional
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	>2026	2025	3	reliability (B2)	Provisional
Uprate Columbia 345/138-kV transformer T-22 to 527 MVA	>2026	TBD	3	reliability (B3)	Provisional