

Project Name	2019 Estimated In-Service Year	2020 Estimated In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost	Explanation
Petenwell - Council Creek (X-40), OPGW Installation		2024	1	Communication	Provisional			\$ 8,600,000.00	
Hilltop SS, Install 69kV Breakers	2020	2020	1	Condition and Performance	Planned	A in MTEP17	12031	\$ 1,000,000.00	
Wautoma - Wild Rose 69kV (Y-180), Partial Rebuild	2020	2020	1	Condition and Performance	Planned	A in MTEP18	13770	\$ 5,500,000.00	
Wild Rose - Harrison 69kV (Y-19), Partial Rebuild	2020	2020	1	Condition and Performance	Planned	A in MTEP18	12147	\$ 14,400,000.00	
Harrison SS, Install 69kV Breakers	2021	2021	1	Condition and Performance	Planned	A in MTEP17	12051	\$ 760,508.00	Proposed to Planned Status
Caroline SS, Transformer (T31) 69kV Breaker and Relay Asset Renewals	2021	2021	1	Condition and Performance	Planned	A in MTEP18	14986	\$ 4,488,625.00	
Saratoga - Coyne 115kV (T-72), Rebuild	2021	2021	1	Condition and Performance	Planned	A in MTEP17	12178	\$ 6,800,000.00	
Whitcomb SS, Transformer (T31) 69kV Breaker Asset Renewals	2021	2021	1	Condition and Performance	Planned	A in MTEP18	14987	\$ 5,469,503.00	
Winneconne SS, Relay and Breaker Replacement	2021	2022	1	Condition and Performance	Planned	A in MTEP18	13243	\$ 2,800,000.00	ISY Changed
Chaffee Creek SS - Lincoln Pump Station 69kV (Y-18), Rebuild	2023	2023	1	Condition and Performance	Planned	A in MTEP18	10486	\$ 9,560,000.00	
Wautoma - Chaffee Creek 69kV (Y-49), Rebuild	2023	2023	1	Condition and Performance	Planned	A in MTEP18	7764	\$ 14,500,000.00	
McKenna - Castle Rock 69kV (Y-47), Rebuild	2025	2025	1	Condition and Performance	Planned	A in MTEP18	7763	\$ 10,740,000.00	
Lincoln Pump Station - McKenna 69kV (Y-145), Rebuild	2025	2025	1	Condition and Performance	Planned	A in MTEP18	7765	\$ 9,000,000.00	From Proposed to Planned Status
J821 GIC Zenith SS - Generator Interconnection Facilities and Network Upgrades		2021	1	G-T Interconnection	Proposed	A in MTEP20	18567	\$ 7,235,132.00	GIA Signed
Waupaca Area Energy Storage Project	2021	2021	1	Operational Flexibility	Planned	A in MTEP19	15947	\$ 8,071,000.00	Expected to be Certified in Early 2020 as part of MTEP19 / Proposed to Planned Status
Venus SS, new inductor bank	2025	2025	1	Reliability	Provisional	B in MTEP19	15945	\$ 1,800,000.00	
Weston - Sherman Street, 115kV line (Z-52), uprate		2023	1	Reliability	Proposed	A in MTEP20	14909	\$ 997,000.00	
Petenwell - Saratoga 138kV (X-43), Line Rebuild	2022	2022	1	Reliability, Economic	Proposed	A in MTEP20	18017	\$ 24,500,000.00	Cost Estimated Updated
Maine - Hilltop 115kV line (U-11), uprate		2023	1	Reliability	Proposed	A in MTEP20	14909	\$ 835,000.00	
Big Pond SS, Retire Substation	2020	2020	1	Retirement	Planned	A in MTEP18	13831	\$ 500,000.00	
Venus SS, Capacitor Bank Retirement	2020	2020	1	Retirement	Planned	A in MTEP18	14806	\$ 1,000,000.00	Cost Estimated Updated
Waupaca SS, DIC, transformer addition	2021	2022	1	T-D Interconnection	Provisional	B in MTEP20	18053	\$ 6,000,000.00	ISY Changed
Baker St SS, Add new 115-kV bus and bus tie breaker	2021	2021	1	T-D Interconnection	Planned	A in MTEP17	12115	\$ 4,400,000.00	Proposed to Planned Status
Stratford SS, DIC add 2nd transformer and substation rebuild	2019	2020	1	T-D Interconnection	Planned	A in MTEP18	15044	\$ 3,700,000.00	ISY Changed
Homme SS, New DIC	2020	2020	1	T-D Interconnection	Planned	A in MTEP18	13787	\$ 371,249.00	Proposed to Planned Status
Biramwood SS, DIC replace transformer and substation rebuild	2023	2021	1	T-D Interconnection	Planned	A in MTEP18	15128	\$ 4,500,000.00	ISY Changed / Proposed to Planned Status
Hancock SS, Replace Transformers	2019		1	T-D Interconnection	Planned	A in MTEP18	13774	\$ 4,700,000.00	In-Service
9 Mile SW STA - Pine River 69kV (6921/23), Replace select poles, x-arms, re-insulate	2025	2025	2	Condition and Performance	Provisional	B in MTEP19	16496	\$ 5,870,000.00	
Empire SS, Control House Replacement and Breaker & Relay Asset Renewal	2025	2025	2	Condition and Performance	Provisional	B in MTEP19	16489	\$ 6,732,000.00	
North Lake - Greenstone 69kV (NLKY11), Rebuild	2024	2026	2	Condition and Performance	Provisional	--	--	\$ 14,000,000.00	ISY Changed
Mass - Conover 69kV (6530), Replace select poles, reinsulate	2025	2028	2	Condition and Performance	Provisional	B in MTEP19	16495	\$ 8,560,000.00	ISY Changed
Nordic SS, Install 138kV Breakers	2019		2	Condition and Performance	Proposed	A in MTEP17	12062	\$ 5,500,000.00	In-Service
Hiawatha - Pine River 69kV (ESE_6908), Replace select poles, cross arms.	2020	2020	2	Condition and Performance	Planned	A in MTEP18	13773	\$ 5,012,778.00	
Mackinac - McGulpin 138kV (9901 and 9903), submarine cable replacement	2021	2021	2	Condition and Performance	Planned	A in MTEP18	15145	\$ 105,000,000.00	
Mackinac HVDC, System Control and Monitoring (SCM) Asset Renewal	2022	2022	2	Condition and Performance	Planned	A in MTEP20	18020	\$ 4,000,000.00	Updated Proposed to Planned Status
Tilden SS, Control House Replacement and Breaker & Relay Asset Renewal	2025	2025	2	Condition and Performance	Planned	A in MTEP20	16488	\$ 5,484,000.00	Provisional to Proposed Status / Moved to Target A, MTEP20
Nine Mile SS, Install MODs for Sectionalizing	2019		2	Condition and Performance	Planned	A in MTEP18	13788	\$ 3,443,060.00	In-Service
NLKG31 Tap - Greenstone 138kV, construct new transmission line	2022	2022	2	Condition and T-D Interconnection	Planned	A in MTEP19	15933	\$ 5,200,000.00	Proposed to Planned Status / Certified by MISO in MTEP19
J928/J849 Indian Lake, Common Use Upgrades	2019	2020	2	G-T Interconnection	Planned	A in MTEP19	17064	\$ 200,000.00	ISY Changed
J928 - Garden Corners SS, GIC Network Upgrades	2020	2020	2	G-T Interconnection	Planned	A in MTEP19	16494	\$ 300,000.00	Certified by MISO in MTEP19
J849, Chandler SS, Interconnection Facilities and Network Upgrades	2022	2022	2	G-T Interconnection	Planned	A in MTEP19	16492	\$ 3,036,785.00	Certified by MISO in MTEP19
North Lake - M-38 138kV (NLKG31), Rerate	2020	2020	2	Line Clearance	Planned	A in MTEP18	15284	\$ 2,500,000.00	
Forsyth SS - Gwinn SS 69kV, new line	2023	2023	2	Operational Flexibility	Provisional	B in MTEP20	18018	\$ 4,000,000.00	
Atlantic SS, 138/69kV Bus Reconfiguration and Transformer Addition	2022	2022	2	Operational Flexibility	Planned	A in MTEP19	7586	\$ 6,600,000.00	Certified by MISO in MTEP19
Winona - Atlantic 69kV (Winona69), rebuild	2025	2025	2	Reliability	Provisional	A in MTEP20	4727	\$ 16,000,000.00	Cost Estimated Updated
Arnold SS, 80 MVAR Inductor Bank	2022	2027	2	Reliability	Provisional	B in MTEP18	14187	< 10 M	ISY Changed
Silver River SS, New 138kV Inductor Bank	2019	2020	2	Reliability	Planned	A in MTEP18	14185	\$ 4,100,000.00	ISY Changed
Presque Isle - Tilden 138kV, Loop and Uprate	2022	2022	2	Reliability	Planned	A in MTEP19	15345	\$ 13,100,000.00	Certified by MISO in MTEP19
M-38 SS, New 138kV Inductor Bank	2019		2	Reliability	Planned	A in MTEP18	14185	\$ 4,100,000.00	In-Service
Central UP, new DIC	2021	2022	2	T-D Interconnection	Proposed	A in MTEP18	15133	\$ 6,200,000.00	ISY Changed
Eastern UP, new DIC	2022	2023	2	T-D Interconnection	Proposed	A in MTEP18	15130	\$ 12,600,000.00	ISY Changed
Keel Ridge SS, new DIC	2024	2024	2	T-D Interconnection	Proposed	A in MTEP18	13792	\$ 2,600,000.00	
Academy - Columbus 69kV (Y-21), Rebuild	2024	2024	3	Condition and Performance	Provisional	A in MTEP20	10590	\$ 3,150,000.00	
Darlington - Rock Branch 69kV (Y-109), Rebuild	2025	2025	3	Condition and Performance	Provisional	B in MTEP20	18046	\$ 16,600,000.00	
Rock Branch SS - Dodgeville SS 69kV (Y-35), Partial Rebuild	2027	2025	3	Condition and Performance	Provisional	--	--	\$ 9,000,000.00	ISY Changed
South Beaver Dam - Horicon 69kV (Y-134), Rebuild	2026	2026	3	Condition and Performance	Provisional	B in MTEP20	18047	\$ 14,000,000.00	
South Fond du Lac - Spring Brook 69kV (Y-133), Partial rebuild	2029	2030	3	Condition and Performance	Provisional	B in MTEP18	13739	\$ 17,000,000.00	ISY Change / Updated Cost Estimate
Pflaum SS, Asset Renewal	2025	2025	3	Condition and Performance	Proposed	A in MTEP18	13768	\$ 2,075,688.00	
Hillman - Darlington 138kV (X-14/X-101), Rebuild	2026	2026	3	Condition and Performance	Proposed	A in MTEP18	4726	\$ 21,090,000.00	
Husikamp SS, Relay and Breaker Replacement	2020	2020	3	Condition and Performance	Planned	A in MTEP18	13717	\$ 506,490.00	
Portage - Staff 138kV (X-6), Rebuild	2020	2020	3	Condition and Performance	Planned	A in MTEP17	9968	\$ 17,720,000.00	
Staff - North Randolph 138kV (X-98), Rebuild	2020	2020	3	Condition and Performance	Planned	A in MTEP17	9974	\$ 5,000,000.00	
Waupun SS, Rebuild Substation	2020	2020	3	Condition and Performance	Planned	A in MTEP17	12100	\$ 4,200,000.00	
West Towne SS, Relay Replacements	2020	2020	3	Condition and Performance	Planned	A in MTEP18	13749	\$ 3,185,723.00	
Mount Horeb SS, Install 69kV Breakers	2020	2020	3	Condition and Performance	Planned	A in MTEP17	12903	\$ 4,300,000.00	Proposed to Planned Status
Sycamore SS, Install 69kV Breakers	2020	2020	3	Condition and Performance	Planned	A in MTEP17	12183	\$ 2,755,829.00	Proposed to Planned Status
Dane - Waunakee 69kV (Y-143), Rebuild	2021	2021	3	Condition and Performance	Planned	A in MTEP17	12177	\$ 6,600,000.00	
Hillside SS, Relay and Breaker Replacements	2021	2021	3	Condition and Performance	Planned	A in MTEP18	13802	\$ 670,000.00	
Sheepskin - Stoughton 69kV (Y-12), Rebuild	2021	2021	3	Condition and Performance	Planned	A in MTEP17	7600	\$ 13,500,000.00	
Colley Road SS, Transformer Replacement and Asset Renewal	2023	2023	3	Condition and Performance	Planned	A in MTEP20	17585	\$ 3,150,000.00	Proposed to Planned Status

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Boscobel - Lone Rock 69kV (Y-124), Rebuild	2019		3	Condition and Performance	Planned	A in MTEP16	7583	\$ 32,500,000.00	In-Service
Kilbourn SS, Bus Reconfiguration and Relay Replacement	2019		3	Condition and Performance	Planned	A in MTEP18	13789	\$ 6,900,000.00	In-Service
Nelson Dewey SS, Transformer Addition and Asset Renewal	2019		3	Condition and Performance	Planned	A in MTEP16	9961	\$ 5,375,625.00	In-Service
Blount - East Campus, 69kV, (6907), underground cable replacement		2020	3	Damage	Planned	A in MTEP20	18848	\$ 9,000,000.00	
J584 GIC Jordan SS, Generator Interconnection Facilities and Network Upgrades	2021	2021	3	G-T Interconnection	Proposed	A in MTEP19	16493	\$ 6,200,000.00	GIA Signed
J855 GIC Ebenezer SS - Generator Interconnection Facilities and Network Upgrades		2020	3	G-T Interconnection	Planned	A in MTEP20	18655	\$ 5,526,333.00	GIA Signed
J870/J871 MPFCA Highland SS, Generator Interconnection Facilities	2020	2020	3	G-T Interconnection	Planned	A in MTEP20	17525	\$ 5,524,756.00	Proposed to Planned / Moved to Target A, MTEP20 / Cost Estimated Updated
J870/J871 MPFCA Highland SS, Generator Network Upgrades		2021	3	G-T Interconnection	Planned	A in MTEP20	17525	\$ 16,655,765.00	Proposed to Planned / Moved to Target A, MTEP20 / Cost Estimated Updated
J870 GIA Highland SS Interconnection Facilities		2020	3	G-T Interconnection	Planned	A in MTEP20	18849	\$ 230,118.00	GIA Signed
J807 GIC Falcon SS Addition - Generator Interconnection Facilities and Network Upgrades		2021	3	G-T Interconnection	Planned	A in MTEP20	18566	\$ 870,186.00	GIA Signed
Gran Grae SS, Install a second 161/69kV transformer	2026	2026	3	Reliability	Provisional	--	--	\$ 8,200,000.00	
Cardinal SS - Blount SS 138kV, construct	2031	2031	3	Reliability	Provisional	C	1730	\$ 109,000,000.00	ISY Changed
West Middleton SS - Stagecoach SS 69kV (6927), Partial Rebuild	2023	2023	3	Reliability	Proposed	A in MTEP20	12175	\$ 2,800,000.00	
Portage SS - Columbia SS 138kV (X-13/X-20), rebuild existing double circuit	2024	2024	3	Reliability	Proposed	A in MTEP19	4730	\$ 10,000,000.00	Certified by MISO in MTEP19
Portage - Trienda 138kV (X-67), uprate	2020	2020	3	Reliability	Planned	A in MTEP14	1624	\$ 2,000,000.00	
Huiskamp SS - Waunakee SS (Y-132), Switch Replacement	2019		3	Reliability	Planned	A in MTEP18	13824	\$ 288,500.00	In-Service
Spring Valley SS - North Lake Geneva SS 138kV, Construct	2019		3	Reliability	Planned	A in MTEP14	3808	\$ 70,500,000.00	In-Service
Cardinal SS - Hickory Creek SS 345kV, Line Construction	2023	2023	3	Reliability, Economic and Policy	Planned	A in MTEP11	3127	\$ 492,200,000.00	
Klondike SS, New DIC		2020	3	T-D Interconnection	Proposed	A in MTEP19	14906	\$ 1,000,000.00	
Portage Industrial Park SS, DIC, replace transformers and substation rebuild	2021	2021	3	T-D Interconnection	Planned	A in MTEP18	15127	\$ 3,000,000.00	Proposed to Planned Status
Green County, new DIC	2022	2022	3	T-D Interconnection	Proposed	A in MTEP18	15129	\$ 3,971,154.00	Cost Estimated Updated
Barneveld SS, DIC, new substation	2023	2023	3	T-D Interconnection	Proposed	A in MTEP20	18052	\$ 9,221,000.00	Provisional to Proposed / Moved to Target A, MTEP20 / Cost Estimated Updated
Dam Heights SS, DIC and new radial line	2020	2020	3	T-D Interconnection	Planned	A in MTEP18	15045	\$ 3,300,000.00	
Koshkonong SS, new DIC	2020	2020	3	T-D Interconnection	Planned	A in MTEP18	14905	\$ 1,000,000.00	
Muscoda SS, DIC add 2nd transformer and substation rebuild	2020	2020	3	T-D Interconnection	Planned	A in MTEP18	15124	\$ 3,300,000.00	
Milton Lawns SS, DIC add 2nd transformer and line breakers	2021	2021	3	T-D Interconnection	Planned	A in MTEP18	15131	\$ 3,000,000.00	
Northern Lights Substation, new T-D Interconnection	2021	2021	3	T-D Interconnection	Planned	A in MTEP17	12346	\$ 26,000,000.00	Proposed to Planned Status
Waterloo SS, new DIC		2021	3	T-D Interconnection	Planned	A in MTEP19	14906	\$ 2,700,000.00	
Stiles SS - West Marinette SS (M117/L142), OPGW Installation	2023	2023	4	Communication	Planned	A in MTEP19	15936	\$ 5,275,932.00	Certified by MISO in MTEP19
Bayport SS - Pioneer SS 138kV, rebuild as a double-circuit	2021	2022	4	Condition and Performance	Proposed	A in MTEP18	14706	\$ 51,700,000.00	ISY Changed
Edgewater SS - Lodestar SS 138kV (X-48/Y-31), Underground cable rebuild	2022	2022	4	Condition and Performance	Proposed	A in MTEP19	15925	\$ 11,400,000.00	Certified by MISO in MTEP19
Pioneer SS - Crivitz SS 138kV (E-83/B-2), retire 69kV and reconfigure load to 138kV	2022	2023	4	Condition and Performance	Proposed	A in MTEP18	14926	\$ 20,400,000.00	ISY Changed
Danz Ave SW STA - University (WPS) 69kV (O-15), underground rebuild & OPGW	2023	2023	4	Condition and Performance	Proposed	A in MTEP19	15924	\$ 14,800,000.00	Certified by MISO in MTEP19
New Holstein SS, Install 69kV Breaker	2019		4	Condition and Performance	Proposed	A in MTEP18	13791	\$ 537,221.00	In-Service
Manrap SS, Install 69kV Breakers	2020		4	Condition and Performance	Proposed	A in MTEP17	12184	\$ 1,336,964.00	In-Service
Cedar Ridge Wind Generation - Mullet River 138kV (X-97), Rebuild	2020	2020	4	Condition and Performance	Planned	A in MTEP17	12148	\$ 22,800,000.00	
Finger Road - Canal 69kV (J-10), Rebuild	2020	2020	4	Condition and Performance	Planned	A in MTEP16	8841	\$ 56,639,999.00	
Redwood - First Ave 69kV (T-46), Replace the submarine cable	2020	2021	4	Condition and Performance	Planned	A in MTEP18	8444	\$ 11,300,000.00	ISY Changed
Butte Des Morts - Sunset Point 138kV, Rebuild	2021	2021	4	Condition and Performance	Planned	A in MTEP17	12185	\$ 20,600,000.00	
Cloverleaf SS, Replace Dead End and Switches	2021	2021	4	Condition and Performance	Planned	A in MTEP18	13728	\$ 1,062,784.00	
Erdman SS, Transformer and Breaker Asset Renewal	2021	2021	4	Condition and Performance	Planned	A in MTEP19	15931	\$ 7,000,000.00	Certified by MISO in MTEP19
Shoto SS, Transformer (T1) and Breaker Asset Renewal	2021	2022	4	Condition and Performance	Planned	A in MTEP18	14988	\$ 5,700,000.00	ISY Changed
Edgewater SS, Bus Reconfiguration	2022	2022	4	Condition and Performance	Planned	A in MTEP18	13756	\$ 9,800,000.00	
Finger Rd - Danz 69kV (L-64), Rebuild	2022	2022	4	Condition and Performance	Planned	A in MTEP18	12141	\$ 4,230,000.00	
Hwy V - Finger Rd 69kV (U-47), Rebuild	2022	2022	4	Condition and Performance	Planned	A in MTEP18	12140	\$ 1,520,000.00	
New Holstein - Custer 69kV (P-68), Rebuild	2022	2022	4	Condition and Performance	Planned	A in MTEP18	7584	\$ 27,000,000.00	
Wesmark SS, Relay and Breakers	2022	2022	4	Condition and Performance	Planned	A in MTEP18	13747	\$ 811,572.00	
Morgan SS, Breaker Asset Renewal and Facility Upgrades	2023	2022	4	Condition and Performance	Planned	A in MTEP20	16606	\$ 5,000,000.00	ISY Changed
Pulliam SS, Transformer Retirement and Bus Reconfiguration	2022	2022	4	Condition and Performance	Planned	A in MTEP20	15930	\$ 3,260,000.00	
Finger Road SW STA - Wesmark 69kV (FIRY11), Rebuild	2023	2023	4	Condition and Performance	Planned	A in MTEP18	12134	\$ 14,400,000.00	
Glenview SS, Transformer Retirement and Breaker & Relay Asset Renewal	2023	2023	4	Condition and Performance	Planned	A in MTEP20	18019	\$ 4,799,000.00	
Wesmark - Rapids 69kV (R-44), Rebuild	2024	2024	4	Condition and Performance	Planned	A in MTEP18	12135	\$ 21,500,000.00	
Oak St - Hwy V 69kV (Z-26), Rebuild	2025	2025	4	Condition and Performance	Planned	A in MTEP18	12137	\$ 9,000,000.00	
Caldron Falls - Goodman 69kV (J-88), Rebuild	2020		4	Condition and Performance	Planned	A in MTEP16	9977	\$ 25,206,000.00	In-Service
Forest Junction SS, Relieve Market Congestion	2020	2020	4	Economic	Planned	A in MTEP18	16164	\$ 1,300,000.00	Proposed to Planned Status
J886 GIC Kewaunee SS, Interconnection Facilities and Network Upgrades	2020	2020	4	G-T Interconnection	Planned	A in MTEP20	17526	\$ 2,300,000.00	GIA Signed / Proposed to Planned Status
J505 GIC Apollo SS, Generator Interconnection and Network Facilities	2021	2021	4	G-T Interconnection	Planned	A in MTEP18	14925	\$ 8,300,000.00	
Howards Grove SS - Erdman SS 138kV, new line	2026	2026	4	Reliability	Provisional	B in MTEP20	18568	\$ 25,000,000.00	
Lost Dauphin - Red Maple 138kV (Q-147), uprate		2023	4	Reliability	Proposed	A in MTEP21	14964	\$ 635,000.00	
Ellinwood SS, Upgrade 138kV Bus	2019		4	Reliability	Proposed	A in MTEP17	12103	\$ 2,400,000.00	In-Service
Edgewater SS - Erdmann SS 69kV (Y-31), rerate	2020	2020	4	Reliability	Planned	A in MTEP18	13824	\$ 2,350,000.00	
Pulliam SS, Install redundant bus differential	2020	2021	4	Reliability	Planned	A in MTEP18	13727	\$ 1,900,000.00	ISY Changed
20th Street SS, Install two 138kV 8.16 MVAR Capacitor Banks	2020	2021	4	Reliability	Planned	A in MTEP19	14908	\$ 2,500,000.00	ISY Change / Updated Cost Estimate
Huebner SS, Install two 138kV 8.16 MVAR Capacitor Banks	2021	2021	4	Reliability	Planned	A in MTEP19	14908	\$ 2,400,000.00	Certified by MISO in MTEP19
Riverside SS, Bus Uprate	2022	2022	4	Reliability	Planned	A in MTEP18	13832	\$ 80,000.00	
Forest Junction SS, Install 25 MVAR Inductor	2019		4	Reliability	Planned	A in MTEP17	7581	\$ 1,800,000.00	In-Service
Sheboygan County SS, DIC, substation rebuild	2022	2022	4	T-D Interconnection	Provisional	B in MTEP20	18051	\$ 8,000,000.00	
30th Avenue SS, DIC, replace transformer	2020	2020	4	T-D Interconnection	Planned	A in MTEP18	14905	\$ 2,200,000.00	
Ogden St SS, Network Project: Ogden St - Bayshore 69kV Line Construction	2020	2020	4	T-D Interconnection	Planned	A in MTEP15	4732	\$ 10,400,000.00	
Packaging SS, new DIC	2020	2020	4	T-D Interconnection	Planned	A in MTEP18	15132	\$ 6,500,000.00	
Bayridge SS, new T-D Interconnection	2025	2022	4	T-D Interconnection	Planned	A in MTEP16	10485	\$ 2,000,000.00	ISY Changed

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Preble SS, DIC, add 4th transformer and substation rebuild	2022	2022	4	T-D Interconnection	Planned	A in MTEP20	17628	\$ 3,498,694.00	Proposed to Planned Status
Roosevelt SS, Construct	2022	2022	4	T-D Interconnection	Planned	A in MTEP16	10686	\$ 1,102,365.00	Proposed to Planned Status
Edgewater SS, DIC, replace transformer and substation rebuild	2023	2022	4	T-D Interconnection	Planned	A in MTEP18	15126	\$ 5,000,000.00	ISY Changed / Proposed to Planned Status / Cost Estimate Updated
Eaton SS, new T-D Interconnection	2022	2024	4	T-D Interconnection	Planned	A in MTEP16	10484	\$ 2,500,000.00	ISY Changed / Proposed to Planned Status
Lincoln - Bluemound (43rd St) 138kV (5053), replace underground cable	2024	2024	5	Condition and Performance	Provisional	B in MTEP20	18048	\$ 30,000,000.00	
Burlington SS, Install 138kV Breakers	2021	2021	5	Condition and Performance	Planned	A in MTEP17	12058	\$ 1,400,000.00	Proposed to Planned Status
Bain SS, Control House and Breaker Asset Renewal	2021	2021	5	Condition and Performance	Planned	A in MTEP19	15932	\$ 8,500,000.00	Certified by MISO in MTEP19
Paris - Burlington 138kV (8962), Rebuild	2021	2021	5	Condition and Performance	Planned	A in MTEP18	13732	\$ 12,560,000.00	
Barton - Auburn 138kV (9752), Partial Rebuild	2022	2021	5	Condition and Performance	Planned	A in MTEP18	13743	\$ 7,050,000.00	
St. Lawrence - Barton 138kV (8032), Partial Rebuild	2021	2022	5	Condition and Performance	Planned	A in MTEP18	13735	\$ 8,400,000.00	ISY Changed
Range Line SW STA, Control House Replacement and Asset Renewal	2022	2022	5	Condition and Performance	Planned	A in MTEP19	15928	\$ 7,100,000.00	Certified by MISO in MTEP19
Summit - Cooney 138kV (6431), Rebuild	2023	2023	5	Condition and Performance	Planned	A in MTEP19	15457	\$ 4,100,000.00	Certified by MISO in MTEP19
Norwich - Barland 138kV (NWHG41), Re-insulate	2019		5	Condition and Performance	Planned	A in MTEP18	13821	\$ 310,000.00	In-Service
St Lawrence SS, Breaker replacement and asset renewal	2019		5	Condition and Performance	Planned	A in MTEP18	13746	\$ 253,393.00	In-Service
Waukesha SS, Relay and Breaker Replacements	2019		5	Condition and Performance	Planned	A in MTEP18	13742	\$ 836,447.00	In-Service
Granville SS, Control House and Relay Replacement and Asset Renewal	2024	2024	5	Condition and Performance / Reliability	Provisional	B in MTEP19	16490	\$ 24,000,000.00	
Arcadian SS, Power Transformer and Control House Replacement and Asset Renewal	2023	2023	5	Condition and Performance / Reliability	Planned	A in MTEP20	16486	\$ 45,000,000.00	
J850/J878 MPFCA East Paris New SS		2022	5	G-T Interconnection	Proposed	A in MTEP20	18985	\$ 25,525,101.00	MPFCA Signed
Port Washington SS - Saukville SS 138kV (762), Rebuild to a double circuit	2021	2021	5	Reliability	Planned	A in MTEP16	9986	\$ 16,000,000.00	
Lincoln SS, Bus Reconfiguration	2019		5	Reliability	Planned	A in MTEP18	13738	\$ 4,100,000.00	In-Service
Arcadian SS, Construct D-T	2020	2020	5	T-D Interconnection	Planned	A in MTEP17	13067	\$ 300,000.00	
Juneautown SS, new T-D Interconnection	2020	2020	5	T-D Interconnection	Planned	A in MTEP18	13104	\$ 34,600,000.00	
State Line SS, new DIC	2020	2020	5	T-D Interconnection	Planned	A in MTEP18	14604	\$ 8,200,000.00	
Mount Pleasant Tech Interconnection	2019		5	T-D Interconnection	Planned	A in MTEP18	14073	\$ 117,000,000.00	In-Service
Communication Reliability Upgrades 2022	2025	2025	various	Communication	Proposed	B in MTEP18	14965	\$ 8,851,667.00	
Communication Reliability Upgrades Current Cycle	2021	2021	various	Communication	Planned	A in MTEP18	13823	\$ 34,461,836.00	
Communication Reliability Upgrades 2019	2022	2022	various	Communication	Planned	A in MTEP18	13829	\$ 1,422,500.00	
Communication Reliability Upgrades 2020	2023	2023	various	Communication	Planned	A in MTEP19	14910	\$ 11,344,615.00	Certified by MISO in MTEP19
Communication Reliability Upgrades 2021	2024	2024	various	Communication	Planned	A in MTEP20	14911	\$ 7,500,000.00	Target A in MTEP20 / Cost Estimated Updated
Small Capital Project and Asset Renewal 2022	2025	2025	various	Condition and Performance	Proposed	B in MTEP18	14964	\$ 30,489,835.00	
Small Capital Project and Asset Renewal Current Cycle	2021	2021	various	Condition and Performance	Planned	A in MTEP18	13821	\$ 38,457,451.00	
Small Capital Project and Asset Renewal 2019	2022	2022	various	Condition and Performance	Planned	A in MTEP18	13822	\$ 8,007,814.00	
Small Capital Project and Asset Renewal 2020	2023	2023	various	Condition and Performance	Planned	A in MTEP19	14908	\$ 35,906,079.00	Certified by MISO in MTEP19
Small Capital Project and Asset Renewal 2021	2024	2024	various	Condition and Performance	Planned	A in MTEP20	14909	\$ 38,000,000.00	Proposed to Planned / Target A in MTEP20 / Cost Estimated Updated
Line Clearance Mitigation Project 2022	2025	2025	various	Line Clearance	Proposed	B in MTEP18	14966	\$ 7,100,000.00	
Line Clearance Mitigation Project Current Cycle	2021	2021	various	Line Clearance	Planned	A in MTEP18	13824	\$ 18,718,669.00	
Line Clearance Mitigation Project 2019	2022	2022	various	Line Clearance	Planned	A in MTEP18	13825	\$ 5,832,204.00	
Line Clearance Mitigation Project 2020	2023	2023	various	Line Clearance	Planned	A in MTEP19	14912	\$ 12,062,247.00	Certified by MISO in MTEP19
Line Clearance Mitigation Project 2021	2024	2024	various	Line Clearance	Planned	A in MTEP20	14913	\$ 14,000,000.00	Target A in MTEP20 / Cost Estimated Updated
Physical Security 2022	2025	2025	various	Physical Security	Proposed	B in MTEP18	14967	\$ 9,165,536.00	
Physical Security Current Cycle	2021	2021	various	Physical Security	Planned	A in MTEP18	13826	\$ 67,198,396.00	
Physical Security 2019	2022	2022	various	Physical Security	Planned	A in MTEP18	13828	\$ 3,000,000.00	
Physical Security 2020	2023	2023	various	Physical Security	Planned	A in MTEP19	14914	\$ 21,603,965.00	Certified by MISO in MTEP19
Physical Security 2021	2024	2024	various	Physical Security	Planned	A in MTEP20	14915	\$ 14,000,000.00	Target A in MTEP20 / Cost Estimated Updated
Load Interconnection 2022	2025	2025	various	T-D Interconnection	Proposed	B in MTEP18	14968	\$ 38,475,000.00	
Distribution Interconnection Current Cycle	2021	2021	various	T-D Interconnection	Planned	A in MTEP18	14904	\$ 6,436,258.00	
Distribution Interconnection 2019	2022	2022	various	T-D Interconnection	Planned	A in MTEP18	14905	\$ 10,570,000.00	
Load Interconnection 2020	2023	2023	various	T-D Interconnection	Planned	A in MTEP19	14906	\$ 26,774,954.00	Certified by MISO in MTEP19
Load Interconnection 2021	2024	2024	various	T-D Interconnection	Planned	A in MTEP20	14907	\$ 17,500,000.00	Target A in MTEP20 / Cost Estimated Updated

LEGEND

- Green Shading = Project In-Service (Interim Updates Only)
- 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

COMMONLY USED DEFINITIONS

- DIC - Distribution Interconnection
- GIC - Generator Interconnection
- GIA - Generator Interconnection Agreement
- MPFCA - Multi-Party Facility Agreement

MISO MTEP Appendix - Indicates MTEP Cycle, Cycles MTEP18 and prior are Certified in MISOs' Regional Plan for A projects (BOLDED), MTEP20 and future cycles are not yet certified at the time of publication (3/2020).