Project Name	2020 Est. In- Service Year	2021 Est. In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost	Explanation
Hilltop SS, Install 69kV Breakers	2020	2021	1	Condition and Performance	Planned	A in MTEP17	12031	\$ 1,000,000.00	ISY Changed
Wild Rose - Harrison 69kV (Y-19), Partial Rebuild Big Pond SS, Retire Substation	2020 2020	2021	1	Condition and Performance Retirement	Planned Planned	A in MTEP18 A in MTEP18	12147 13831	\$ 14,400,000.00 \$ 454,000.00	ISY Changed
Eagle River Cranberry SS, DIC, 2nd Transformer	2020	2021	1	T-D Interconnection	Planned	A in MTEP18	14906	\$ 454,000.00	ISY Changed
Homme SS, New DIC	2020		1	T-D Interconnection	Planned	A in MTEP18	13787	\$ 371,249.00	
Lyndon Station SS, Replace Transformer and Substation Rebuild	2020		1	T-D Interconnection	Planned	A in MTEP18	14905	\$870,000.00	
Caroline SS, Transformer (T31) 69kV Breaker and Relay Asset Renewals	2021		1	Condition and Performance	Planned	A in MTEP18	14986	\$ 4,488,625.00	
Harrison North SS, Breaker Addition	2021		1	Condition and Performance	Planned	A in MTEP18	13821	\$2,000,000.00	
Harrison SS, Install 69kV Breakers Saratoga - Coyne 115kV (T-72), Rebuild	2021 2021		1	Condition and Performance Condition and Performance	Planned Planned	A in MTEP17 A in MTEP17	12051 12178	\$ 2,700,000.00 \$ 6,600,000.00	
Whitcomb SS, Transformer (T31) 69kV Breaker Asset Renewals	2021		1	Condition and Performance	Planned	A in MTEP17	14987	\$ 5,469,503.00	
Waupaca Area Energy Storage Project	2021		1	Operational Flexibility	Planned	A in MTEP19	15947	\$ 8,071,000.00	Certifed by MISO BOD
Baker St SS, Add new 115-kV bus and bus tie breaker	2021		1	T-D Interconnection	Planned	A in MTEP17	12115	\$ 5,800,000.00	
Birnamwood SS, DIC replace transformer and substation rebuild	2021		1	T-D Interconnection	Planned	A in MTEP18	15128	\$ 130,000.00	
Pine SS, DIC, Transformer Replacement	2021		1	T-D Interconnection	Planned	A in MTEP20	14907	\$165,000.00	Certified in MTEP20
Petenwell - Saratoga 138kV (X-43), Line Rebuild Mudwater SS, DIC, New Substation	2022 2022	2023 2025	1	Reliability, Economic T-D Interconnection	Planned Planned	A in MTEP20 A in MTEP19	18017 14906	\$ 24,500,000.00 \$391,500.00	Certified in MTEP20 / Updated ISY Updated ISY
Waupaca SS, DIC, transformer addition	2022	2023	1	T-D Interconnection	Planned	A in MTEP19	18053	\$ 6.900.000.00	Certified in MTEP20
Chaffee Creek - Lincoln Pump Station 69kV (Y-18), Rebuild	2023		1	Condition and Performance	Planned	A in MTEP18	10486	\$ 9,600,000.00	25. 322 11112. 20
Wautoma - Chaffee Creek 69kV (Y-49), Rebuild	2023		1	Condition and Performance	Planned	A in MTEP18	7764	\$ 14,500,000.00	
Winneconne SS, Relay and Breaker Replacement	2023	2022	1	Condition and Performance	Planned	A in MTEP18	13243	\$ 2,150,000.00	ISY Changed
J732 Superior SS Generator Interconnection Facilities and Network Upgrades	2023		1	G-T Interconnection	Planned	A in MTEP21	19729	\$ 21,245,605.00	From MTEP20 to MTEP21 Target A
Maine - Hilltop 115kV line (U-11), uprate Weston - Sherman Street, 115kV line (Z-52), uprate	2023		1	Reliability Reliability	Proposed	A in MTEP20 A in MTEP20	14909 14909	\$ 835,000.00 \$ 997,000.00	Certified in MTEP20 Certified in MTEP20
Birnamwood SS, DIC new substation	2023		1	T-D Interconnection	Proposed Planned	A in MTEP20 A in MTEP18	15128	\$ 997,000.00	Certified in MTEP20
Petenwell - Council Creek (X-40), OPGW Installation	2023		1	Communication	Planned	A in MTEP21	19587	\$ 9.000,000.00	
Saratoga SS - Control House and Breaker Asset Renewal	2024	2025	1	Condition and Performance	Proposed	B in MTEP21	19525	\$6,319,095.00	Updated ISY
Lincoln Pump Station - McKenna 69kV (Y-145), Rebuild	2025		1	Condition and Performance	Planned	A in MTEP18	7765	\$ 9,000,000.00	·
McKenna - Castle Rock 69kV (Y-47), Rebuild	2025		1	Condition and Performance	Planned	A in MTEP18	7763	\$ 10,740,000.00	
J986 7 Mile Creek SS, Generator Interconnection Facilities and Network Upgrades		2022	1	G-T Interconnection	Provisional	A in MTEP21	20625	\$ 2,257,123.00	
Brooks Corners SS, DIC, Transformer Addition J928 - Garden Corners SS, GIC Network Upgrades	2020	2021	2	T-D Interconnection	Planned	A in MTEP20	14907 16494	\$ 300,000.00	Certified in MTEP20
North Lake - M-38 138kV (NLKG31), Rerate	2020 2020	2021	2	G-T Interconnection Line Clearance	Planned Planned	A in MTEP19 A in MTEP18	13825	\$ 304,855.00 \$ 1,500,000.00	ISY Changed
Mackinac - McGulpin 138kV (9901 and 9903), submarine cable replacement	2021	2021	2	Condition and Performance	Planned	A in MTEP18	15145	\$ 105,000,000.00	ist changeu
Forsyth SS, DIC, Add 1st Transformer	2021		2	T-D Interconnection	Planned	A in MTEP18	14905	\$ 45,000.00	
Garden Corners SS, DIC, add 1st Transformer	2021		2	T-D Interconnection	Planned	A in MTEP18	14904	\$ 1,900,000.00	
Mackinac HVDC, System Control and Monitoring (SCM) Asset Renewal	2022		2	Condition and Performance	Planned	A in MTEP20	18020	\$ 4,000,000.00	Certified in MTEP20
NLKG31 Tap - Greenstone 138kV, construct new transmission line J849, Chandler SS, Interconnection Facilities and Network Upgrades	2022	2022	2	Condition and T-D Interconnection	Planned	A in MTEP19	15933	\$ 5,200,000.00 \$ 3,036,785,00	II I I I I I I
Atlantic SS, 138/69kV Bus Reconfiguration and Transformer Addition	2022	2023	2	G-T Interconnection Dperational Flexibility and Condition and Performance	Planned Planned	A in MTEP19 A in MTEP19	16492 7586	\$ 3,036,785.00 \$ 11,600,000.00	Updated ISY
Presque Isle - Tilden 138kV, Loop and Uprate	2022		2	Reliability	Planned	A in MTEP19	15345	\$ 15,300,000.00	
Masonville SS, DIC, Substation Rebuild and Transformer Additions	2022		2	T-D Interconnection	Planned	A in MTEP19	14906	\$ 1,500,000.00	
Tilden SS, Control House Replacement and Breaker & Relay Asset Renewal	2023		2	Condition and Performance	Planned	A in MTEP20	16488	\$ 5,880,000.00	Certified in MTEP20
Marquette County Reactive Power Project	2023		2	Reliability	Provisional	B in MTEP21	19965	\$ 8,000,000.00	
Munising Area Reactive Power Project	2023		2	Reliability	Provisional	B in MTEP21	19966	\$ 5,000,000.00	
Central UP, new DIC Eastern UP, new DIC	2023	2024	2	T-D Interconnection T-D Interconnection	Proposed Proposed	A in MTEP18 A in MTEP18	15133 15130	\$ 6,200,000.00 \$ 12,593,000.00	Updated ISY
Empire SS, Control House Replacement and Breaker & Relay Asset Renewal	2023	2024	2	Condition and Performance	Proposed	A in MTEP18	16489	\$ 6,732,000.00	Opuateu 151
Forsyth - Gwinn 69kV, new line	2024		2	Operational Flexibility	Provisional	B in MTEP20	18018	\$ 4,000,000.00	
Winona - Atlantic 69kV (Winona69), rebuild	2024		2	Reliability	Proposed	A in MTEP20	4727	\$ 13,900,000.00	Certified in MTEP20
9 Mile SW STA - Pine River 69kV (6921/23), Replace select poles , x-arms, re-insulate	2025		2	Condition and Performance	Provisional	B in MTEP19	16496	\$ 5,900,000.00	
Keel Ridge SS, new DIC North Lake - Greenstone 69kV (NLKY11), Rebuild	2025		2	T-D Interconnection	Proposed	A in MTEP18	13792	\$ 2,600,000.00	
Arnold SS, 80 MVAR Inductor Bank	2026 2027		2	Condition and Performance Reliability	Provisional Provisional	B in MTEP18	14187	\$ 14,000,000.00 \$ 5,000,000.00	
Mass - Conover 69kV (6530), Replace select poles, reinsulate	2027		2	Condition and Performance	Provisional	B in MTEP18	16495	\$ 8,600,000.00	
Huiskamp SS, Relay and Breaker Replacement	2020		3	Condition and Performance	Planned	A in MTEP18	13717	\$ 506,490.00	
Portage - Staff 138kV (X-6), Rebuild	2020		3	Condition and Performance	Planned	A in MTEP17	9968	\$ 12,000,000.00	
Sycamore SS, Install 69kV Breakers	2020		3	Condition and Performance	Planned	A in MTEP17	12183	\$ 2,755,829.00	
Blount - East Campus, 69kV, (6907), underground cable replacement	2020		3	Damage	Planned	A in MTEP20	18848	\$ 9,000,000.00	Certified in MTEP20
Dam Heights SS, DIC and new radial line Columbia SS, Breaker Replacement Asset Renewal	2020		3	T-D Interconnection Condition and Performance	Planned Planned	A in MTEP18 A in MTEP18	15045 13821	\$ 4,200,000.00 \$ 1,778,000.00	
Dane - Waunakee 69kV (Y-143), Rebuild	2021		3	Condition and Performance Condition and Performance	Planned	A in MTEP18	13821	\$ 1,778,000.00	
Hillside SS, Relay and Breaker Replacements	2021		3	Condition and Performance	Planned	A in MTEP18	13802	\$ 1,600,000.00	
Sheepskin - Stoughton 69kV (Y-12), Rebuild	2021		3	Condition and Performance	Planned	A in MTEP17	7600	\$ 9,800,000.00	
Darlington SS Grounding System Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP20	19268	\$ 202,295.00	Certified in MTEP20
Dodgeville SS Grounding System Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP20	19226	\$ 220,000.00	Certified in MTEP20
Eden - Highland (X-147) 138kV, uprate	2021		3	G-T Interconnection	Planned	A in MTEP20	19269	\$ 695,243.00	Certified in MTEP20

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Eden - Lands End 69kV, Loop into Highland SS	2021		3	G-T Interconnection	Planned	A in MTEP20	17525	\$ 13,674,246.00	Certified in MTEP20
Eden SS Grounding System Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP20	19246	\$ 794,591.00	Certified in MTEP20
Elkhorn - North Lake Geneva (X-55) 138 kV, uprate	2021		3	G-T Interconnection	Planned	A in MTEP20	19245	\$ 372,880.00	Certified in MTEP20
Falcon SS Grounding System Upgrades Highland - Spring Green (X-17) 138kV, Uprate	2021 2021		3	G-T Interconnection G-T Interconnection	Planned Planned	A in MTEP20 A in MTEP20	19268 17525	\$ 147,624.00 \$ 2,981,519.00	Certified in MTEP20 Certified in MTEP20
Hill Valley SS Grounding System Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP20	19246	\$ 611,927.00	Certified in MTEP20 Certified in MTEP20
Hillman SS Grounding System Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP20	19248	\$ 181,784.00	Certified in MTEP20
Hillman SS, Upgrade Transformer	2021		3	G-T Interconnection	Planned	A in MTEP20	19268	\$ 3,132,719.00	Certified in MTEP20
J584 GIC Jordan SS, Generator Interconnection Facilities and Network Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP19	16493	\$ 6,200,858.00	
J947 Tennyson SS Generator Interconnection Facilities and Network Upgrades	2021	2023	3	G-T Interconnection	Planned	A in MTEP20	19145	\$ 5,608,810.00	Certified in MTEP20 / Updated ISY
Nelson Dewey SS Grounding System Upgrades	2021		3	G-T Interconnection	Planned	A in MTEP20	19267	\$ 537,753.00	Certified in MTEP20
Spring Green SS Grounding System Upgrades Cross Country SS, DIC, Install New Breakers	2021		3	G-T Interconnection	Planned	A in MTEP20	15205	\$ 220,000.00 \$ 630,000.00	Certified in MTEP20
Milton Lawns SS, DIC add 2nd transformer and line breakers	2021		3	T-D Interconnection T-D Interconnection	Planned Planned	A in MTEP19 A in MTEP18	14906 15131	\$ 630,000.00 \$ 3,000,000.00	
Muscoda SS, DIC add 2nd transformer and substation rebuild	2021		3	T-D Interconnection	Planned	A in MTEP18	15131	\$ 3,290,000.00	
Northern Lights Substation, new T-D Interconnection	2021		3	T-D Interconnection	Planned	A in MTEP17	12346	\$ 21,235,700.00	
Orfordville SS, DIC, Capacitor Retirement and Transformer Replacement	2021		3	T-D Interconnection	Planned	A in MTEP19		\$ 182,000.00	
Portage Industrial Park SS, DIC, replace transformers and substation rebuild	2021		3	T-D Interconnection	Planned	A in MTEP18	15127	\$ 3,000,000.00	
Waterloo SS, DIC, New 138kV Substation	2021		3	T-D Interconnection	Planned	A in MTEP19	14906	\$ 3,600,000.00	
McCue SS, Circuit Breaker Asset Renewal	2022		3	Condition and Performance	Planned	A in MTEP19	14908	\$ 1,775,000.00	
Bass Creek - Town Line Road (X-95) 138kV, reconductor	2022		3	G-T Interconnection	Planned	A in MTEP20	19146	\$ 4,445,862.00	Certified in MTEP20
Bristol - Elkhorn (X-81) 138 kV, uprate Concord - Cooney (9042) 138kV, Reconductor	2022		3	G-T Interconnection	Planned	A in MTEP20	19146	\$ 790,866.00 \$ 3,363,101.00	Certified in MTEP20
J850 North Creek SS Generator Interconnection Facilities and Network Facilities	2022 2022		3	G-T Interconnection	Planned	A in MTEP20 A in MTEP20	18925 19146	\$ 3,363,101.00 \$ 6,104,293.00	Certified in MTEP20 Certified in MTEP20
J864 Lone Rock SS Generator Interconnection Facilities and Network Upgrades	2022		3	G-T Interconnection G-T Interconnection	Planned Planned	A in MTEP20	19225	\$ 1,767,400.00	Certified in MTEP20 Certified in MTEP20
North Lake Geneva Tap - Burlington SS (6541) 138 kV, uprate	2022		3	G-T Interconnection	Planned	A in MTEP20	19146	\$ 1,232,351.00	Certified in MTEP20
Green County, new DIC	2022		3	T-D Interconnection	Planned	A in MTEP18	15129	\$ 4,000,000.00	
Colley Road SS, Transformer Replacement and Asset Renewal	2023		3	Condition and Performance	Planned	A in MTEP20	17585	\$ 3,150,000.00	Certified in MTEP20
Gateway - Sycamore (6902), 69kV, rebuild	2023		3	Reliability	Proposed	A in MTEP21	14964	\$ 2,900,000.00	
South Beaver Dam - North Beaver Dam (Y-59), 69kV, uprate	2023		3	Reliability	Proposed	A in MTEP20	14909	\$ 70,000.00	Certified in MTEP20
West Middleton - Stagecoach 69kV (6927), Partial Rebuild	2023		3	Reliability	Planned	A in MTEP20	12175	\$ 2,735,023.00	Certified in MTEP20 / Proposed to Planned
Cardinal - Hickory Creek 345kV, Line Construction	2023		3	Reliability, Economic and Policy	Planned	A in MTEP11	3127	\$ 492,200,000.00	
Barneveld SS, DIC, new substation	2023		3	T-D Interconnection	Planned	A in MTEP20	18052	\$ 12,300,000.00	Certified in MTEP20
Drumlin SS, DIC, New Substation	2023		3	T-D Interconnection	Provisional	A in MTEP21	19806	\$ 3,500,000.00	
Tokay SS, DIC, Add Transformer	2023		3	T-D Interconnection	Proposed	A in MTEP20	14907	\$ 500,000.00	Certified in MTEP20
Academy - Columbus 69kV (Y-21), Rebuild	2024	2025	3	Condition and Performance	Planned	A in MTEP21	10590	\$ 8,800,000.00	Provisional to Planned / Updated Cost
Kirkwood SS, Control House , Transformer and Breaker Asset Renewal Nelson Dewey SS - Control House, Relay Asset Renewal	2024 2024	2026 2022	3	Condition and Performance Condition and Performance	Provisional Planned	B in MTEP21 A in MTEP21	19963 19105	\$ 7,571,000.00 \$ 6,170,000.00	Updated ISY / Updated MTEP Cycle Updated ISY
Portage - Columbia 138kV (X-13/X-20), rebuild existing double circuit	2024	2022	3	Reliability	Planned	A in MTEP19	4730	\$ 6,170,000.00	Opdated ISY
Spring Green - Wick Drive (Y-170), 69kV, uprate	2024		3	Reliability	Proposed	A in MTEP21	14964	\$ 1,500,000.00	
Darlington - Rock Branch 69kV (Y-109), Rebuild	2025		3	Condition and Performance	Provisional	B in MTEP20	18046	\$ 16,700,000.00	Updated Cost
Pflaum SS, Asset Renewal	2025		3	Condition and Performance	Planned	A in MTEP18	13768	\$ 2,075,688.00	·
Nelson Dewey - Bloomington (Y-184), 69kV, rebuild & OPGW	2025		3	Reliability, Condition and Performance	Provisional	B in MTEP21	19962	\$ 15,250,000.00	
South Beaver Dam - Horicon 69kV (Y-134), Rebuild	2026		3	Condition and Performance	Provisional	B in MTEP20	18047	\$ 14,000,000.00	
Gran Grae SS, Install a second 161/69kV transformer	2026		3	Reliability	Provisional			\$ 8,200,000.00	
Hillman - Darlington 138kV (X-14/X-101), Rebuild Rock Branch - Dodgeville 69kV (Y-35), Partial Rebuild	2028 2028		3	Condition and Performance Condition and Performance	Proposed Provisional	A in MTEP18	4726	\$ 21,090,000.00 \$ 9,000,000.00	
South Fond du Lac - Spring Brook 69kV (Y-133), Partial Rebuild	2028		3	Condition and Performance Condition and Performance	Provisional	B in MTEP18	13739	\$ 9,000,000.00	
Cardinal - Blount 138kV, construct	2030		3	Reliability	Provisional	B in MTEP18	1730	\$ 109,000,000.00	
Rock County Reliability Project	2007	2026	3	Reliability	Provisional	B in MTEP21	20805	\$ 15,000,000.00	
Brodhead Muni 4 SS, DIC, New Substation		2021	3	T-D Interconnection	Planned	A in MTEP20	14907	\$ 400,000.00	Certified in MTEP20
Lancaster Transformer Replacement & Substation Rebuild		2024	3	T-D Interconnection	Proposed	A in MTEP21	20925	\$ 3,700,000.00	
Forest Junction SS, Relieve Market Congestion	2020		4	Economic	Planned	A in MTEP18	16164	\$ 2,000,000.00	
Edgewater - Erdmann 69kV (Y-31), rerate	2020		4	Reliability	Planned	A in MTEP18	13824	\$ 2,350,000.00	
Pulliam SS, Install redundant bus differential 30th Avenue SS, DIC, replace transformer	2020		4	Reliability	Planned	A in MTEP18	13727	\$ 1,900,000.00	
Kaukauna Utilities Combine Locks SS, DIC, replace transformer	2020		4	T-D Interconnection T-D Interconnection	Planned Planned	A in MTEP18 A in MTEP18	14905 14905	\$ 2,200,000.00 \$ 232,000.00	
Ogden St SS, Network Project: Ogden St - Bayshore 69kV Line Construction	2020		4	T-D Interconnection	Planned	A in MTEP15	4732	\$ 17,100,000.00	
Butte Des Morts - Sunset Point 138kV, Rebuild	2021		4	Condition and Performance	Planned	A in MTEP17	12185	\$ 20,600,000.00	
Cloverleaf SS, Replace Dead End and Switches	2021		4	Condition and Performance	Planned	A in MTEP18	13728	\$ 1,062,784.00	
Kewaunee SS, Retire Transformer	2021		4	Condition and Performance	Planned	A in MTEP20	14909	\$ 866,000.00	Certified in MTEP20
Menominee SS, DIC, Retire Transformer	2021		4	Condition and Performance	Planned	A in MTEP20	14909	\$ 417,000.00	Certified in MTEP20
Redwood - First Ave 69kV (T-46), Replace the submarine cable	2021		4	Condition and Performance	Planned	A in MTEP18	8444	\$ 12,500,000.00	
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
J505 GIC Apollo SS, Generator Interconnection and Network Facilities 20th Street SS, Install two 138kV 8.16 MVAR Capacitor Banks	2021	-	4	G-T Interconnection	Planned	A in MTEP18	14925	\$ 8,300,000.00	
Huebner SS, Install two 138kV 8.16 MVAR Capacitor Banks	2021	1	4	Reliability Reliability	Planned Planned	A in MTEP19 A in MTEP19	14908 14908	\$ 2,500,000.00 \$ 2,400,000.00	

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Ryan St SS, DIC, Retire Substation Bayport - Pioneer 138kV, rebuild as a double-circuit	2021 2022		4	T-D Interconnection Condition and Performance	Planned Planned	A in MTEP18 A in MTEP18	14904 14706	\$ 476,000.00 \$ 47,416,000.00	
Bayport - Florieer 136kV, rebuild as a double-circuit	2022		4	Condition and Performance	Planned	A IN IVITEP18	14706	\$ 47,416,000.00	
Edgewater SS, Bus Reconfiguration	2022		4	Condition and Performance	Planned	A in MTEP18	13756	\$ 9.800.000.00	
Erdman SS, Transformer and Breaker Asset Renewal	2022		4	Condition and Performance	Planned	A in MTEP19	15931	\$ 7,000,000.00	
Finger Rd - Danz 69kV (L-64), Rebuild	2022		4	Condition and Performance	Planned	A in MTEP18	12141	\$ 4,230,000.00	
Hwy V - Finger Rd 69kV (U-47), Rebuild	2022	2021	4	Condition and Performance	Planned	A in MTEP18	12140	\$ 1,520,000.00	Updated ISY
New Holstein - Custer 69kV (P-68), Rebuild Pioneer - Crivitz 138kV (E-83/B-2), retire 69kV and reconfigure load to 138kV	2022		4	Condition and Performance Condition and Performance	Planned Planned	A in MTEP18 A in MTEP18	7584 14926	\$ 32,800,000.00 \$ 20,400,000.00	
Pulliam SS, Transformer Retirement and Bus Reconfiguration	2022	2023	4	Condition and Performance Condition and Performance	Planned	A in MTEP18	15930	\$ 20,400,000.00	Certified in MTEP20 / Updated ISY
Wesmark SS, Relay and Breakers	2022	2024	4	Condition and Performance	Planned	A in MTEP18	13747	\$ 811,572.00	ISY Changed
Riverside SS, Bus Uprate	2022		4	Reliability	Planned	A in MTEP18	13832	\$ 80,000.00	
Bayridge SS, new T-D Interconnection	2022		4	T-D Interconnection	Planned	A in MTEP16	10485	\$ 2,122,335.00	
Construct T-D Roosevelt Road Substation	2022		4	T-D Interconnection	Planned	A in MTEP16	10686	\$ 1,102,365.00	2 10 11 2
Henry St. SS, DIC, Retire Substation Preble SS, DIC, add 4th transformer and substation rebuild	2022	2024	4	T-D Interconnection T-D Interconnection	Planned Planned	A in MTEP20 A in MTEP20	14907 17628	\$ 96,000.00 \$ 3,498,694.00	Certified in MTEP20 / Updated ISY Certified in MTEP20
Stiles SS - West Marinette SS (M117/L142), OPGW Installation	2022		4	Communication	Planned	A in MTEP20	15936	\$ 5,600,000.00	Certined iil WHEP20
Danz Ave SW STA - University (WPS) 69kV (O-15), underground rebuild & OPGW	2023		4	Condition and Performance	Planned	A in MTEP19	15924	\$ 14,800,000.00	Proposed to Planned
Edgewater - Lodestar 138kV (X-48/Y-31), Underground cable rebuild	2023		4	Condition and Performance	Proposed	A in MTEP19	15925	\$ 11,400,000.00	Updated ISY
Finger Road SW STA - Wesmark 69kV (FIRY11), Rebuild	2023		4	Condition and Performance	Planned	A in MTEP18	12134	\$ 14,400,000.00	
Glenview SS, Transformer Retirement and Breaker & Relay Asset Renewal East Krok - Beardsley, (EAKY11), 69kV, uprate	2023		4	Condition and Performance Reliability	Planned Proposed	A in MTEP20 A in MTEP21	18019 14964	\$ 2,200,000.00 \$ 2,300,000.00	Certified in MTEP20
Howards Grove - Erdman 138kV, new line	2023		4	Reliability	Proposed	A in MTEP21	18568	\$ 25,000,000.00	Certified in MTEP20
Lost Dauphin - Red Maple 138kV (Q-147), uprate	2023		4	Reliability	Planned	A in MTEP21	14964	\$ 635,000.00	Cer tirled in WITEr 20
12th Avenue SS, DIC, Transformer Replacement	2023		4	T-D Interconnection	Proposed	A in MTEP20	14907	\$ 1,778,000.00	Certified in MTEP20
Sheboygan County SS, DIC, substation rebuild	2023		4	T-D Interconnection	Planned	A in MTEP20	18051	\$ 8,000,000.00	Certified in MTEP20
Wells St. DIC – new West Marinette-Wells St. 69 kV line	2023		4	T-D Interconnection	Proposed	A in MTEP21	19961	\$ 16,100,000.00	Provisional to Proposed
Crivitz SS - Transformer Replacement and Asset Renewal North Appleton SS - Transformer Replacement and Asset Renewal	2024 2024		4	Condition and Performance Condition and Performance	Planned Planned	A in MTEP21 A in MTEP21	19705 19706	\$ 4,344,701.00 \$ 7,811,645.00	
Wesmark - Rapids 69kV (R-44), Rebuild	2024		4	Condition and Performance Condition and Performance	Planned	A in MTEP18	12135	\$ 7,811,645.00	
Eaton SS, new T-D Interconnection	2024		4	T-D Interconnection	Planned	A in MTEP16	10484	\$ 2,500,000.00	
Edgewater SS, DIC, replace transformer and substation rebuild	2024	2025	4	T-D Interconnection	Planned	A in MTEP18	15126	\$ 5,100,000.00	Updated ISY
Oak St - Hwy V 69kV (Z-26), Rebuild	2025		4	Condition and Performance	Planned	A in MTEP18	12137	\$ 9,000,000.00	·
Highway V - Preble 138 kV (X-154), reconductor		2023	4	Reliability	Proposed	A in MTEP21	20785	\$ 1,777,603.00	
Mequon SS Replace Line Breakers and Relay Asset Renewal	2020		5	Condition and Performance	Planned	A in MTEP18	13822	\$ 1,855,524.00	
Merrill Hills SS Line Breaker Additions Pennsylvania SS Relay, Breaker and Disconnect Switch Asset Renewal	2020 2020		5	Condition and Performance Condition and Performance	Planned Planned	A in MTEP19 A in MTEP18	14908 13821	\$ 1,093,000.00 \$ 1,120,000.00	
Juneautown SS, new T-D Interconnection	2020		5	T-D Interconnection	Planned	A in MTEP18	13104	\$ 30,799,000.00	
Bain SS, Control House and Breaker Asset Renewal	2021		5	Condition and Performance	Planned	A in MTEP19	15932	\$ 8,500,000.00	
Burlington SS, Install 138kV Breakers	2021		5	Condition and Performance	Planned	A in MTEP17	12058	\$ 2,000,000.00	
Paris - Burlington 138kV (8962), Rebuild	2021		5	Condition and Performance	Planned	A in MTEP18	13732	\$ 18,000,000.00	
Port Washington - Saukville 138kV (762), Rebuild to a double circuit Arcadian SS, Construct T-D	2021	2020	5	Reliability T-D Interconnection	Planned Planned	A in MTEP16 A in MTEP17	9986 13067	\$ 21,000,000.00	
River Bend SS, Add 2nd Transformer	2021	2020	5	T-D Interconnection	Planned	A in MTEP17	14906	\$ 514,000.00 \$ 717,000.00	
Tamarack SS, DIC, Replace Transformer	2021		5	T-D Interconnection	Planned	A in MTEP19	14906	\$ 2,000,000.00	
Barton - Auburn 138kV (9752), Partial Rebuild	2022		5	Condition and Performance	Planned	A in MTEP18	13743	\$ 7,050,000.00	
Range Line SW STA, Control House Replacement and Asset Renewal	2022		5	Condition and Performance	Planned	A in MTEP19	15928	\$ 7,100,000.00	
St. Lawrence - Barton 138kV (8032), Partial Rebuild Summit - Cooney 138kV (6431), Rebuild	2022	2023	5	Condition and Performance	Planned	A in MTEP18	13735	\$ 8,400,000.00	ISV Changed
Berryville SS Grounding System Upgrades	2022	2023	5	Condition and Performance G-T Interconnection	Planned Planned	A in MTEP19 A in MTEP20	15457 18985	\$ 4,100,000.00 \$ 328,807.00	ISY Changed Certified in MTEP20
Elkhorn SS Grounding System Upgrades	2022		5	G-T Interconnection	Planned	A in MTEP20	18985	\$ 223,683.00	Certified in MTEP20
J850/J878 East Paris SS, new 345/138kV transformer	2022		5	G-T Interconnection	Planned	A in MTEP20	18985	\$ 24,972,611.00	Certified in MTEP20
J878 Paris SS Generator Interconnection Facilities and Network Upgrades	2022		5	G-T Interconnection	Planned	A in MTEP20	19265	\$ 1,973,438.00	Certified in MTEP20
Paris SS Grounding System Upgrades	2022		5	G-T Interconnection	Planned	A in MTEP20	19265	\$ 380,402.00	Certified in MTEP20
Germantown SS DIC, Install additional transformer Sussex to Bark River (46143/2661), 138kV, OPGW Installation	2022		5	T-D Interconnection	Planned	A in MTEP20	14907	\$ 6,000,000.00 \$ 4.250,000.00	Certified in MTEP20 / Proposed to Planned
Sussex to Bark River (46143/2661), 138kV, OPGW Installation Kenosha SS, Breaker, Relay, RTU and Disconnect Asset Renewal	2023		5	Communication Condition and Performance	Provisional Planned	B in MTEP21 A in MTEP19	19959 14905	\$ 4,250,000.00 \$ 1,878,000.00	Certified in MTEP20
Arcadian SS, Power Transformer and Control House Replacement and Asset Renewal	2023		5	Condition and Performance / Reliability	Planned	A in MTEP20	16486	\$ 40,000,000.00	Certified in MTEP20
Lincoln - Bluemound (43rd St) 138kV (5053), replace underground cable	2024		5	Condition and Performance	Provisional	A in MTEP21	18048	\$ 30,000,000.00	
Granville SS, Control House and Relay Replacement and Asset Renewal	2024		5	Condition and Performance / Reliability	Proposed	A in MTEP21	16490	\$ 28,950,000.00	
Communication Reliability Upgrades Current Cycle	2021		various	Communication	Planned	A in MTEP18	13823	\$ 34,461,836.00	
Small Capital Project and Asset Renewal Current Cycle Line Clearance Mitigation Project Current Cycle	2021 2021		various	Condition and Performance	Planned	A in MTEP18 A in MTEP18	13821 13824	\$ 38,457,451.00 \$ 18,718,669.00	
Physical Security Current Cycle	2021		various various	Line Clearance Physical Security	Planned Planned	A in MTEP18 A in MTEP18	13824	\$ 18,718,669.00 \$ 67,198,396.00	
Distribution Interconnection Current Cycle	2021		various	T-D Interconnection	Planned	A in MTEP18	14904	\$ 6,436,258.00	
Communication Reliability Upgrades 2019	2022		various	Communication	Planned	A in MTEP18	13829	\$ 1,422,500.00	

Project Name	2020 Est. In- Service Year	2021 Est. In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost	Explanation
Small Capital Project and Asset Renewal 2019	2022		various	Condition and Performance	Planned	A in MTEP18	13822	\$ 8,007,814.00	
Line Clearance Mitigation Project 2019	2022		various	Line Clearance	Planned	A in MTEP18	13825	\$ 5,832,204.00	
Physical Security 2019	2022		various	Physical Security	Planned	A in MTEP18	13828	\$ 3,000,000.00	
Distribution Interconnection 2019	2022		various	T-D Interconnection	Planned	A in MTEP18	14905	\$ 10,570,000.00	
Communication Reliability Upgrades 2020	2023		various	Communication	Planned	A in MTEP19	14910	\$ 11,344,615.00	
Small Capital Project and Asset Renewal 2020	2023		various	Condition and Performance	Planned	A in MTEP19	14908	\$ 35,906,079.00	
Line Clearance Mitigation Project 2020	2023		various	Line Clearance	Planned	A in MTEP19	14912	\$ 12,062,247.00	
Physical Security 2020	2023		various	Physical Security	Planned	A in MTEP19	14914	\$ 21,603,965.00	
Load Interconnection 2020	2023		various	T-D Interconnection	Planned	A in MTEP19	14906	\$ 26,774,954.00	
Communication Reliability Program 2021	2024		various	Communication	Planned	A in MTEP20	14911	\$ 10,927,208.00	Certified in MTEP20
Small Capital Project and Asset Renewal Program 2021	2024		various	Condition and Performance	Planned	A in MTEP20	14909	\$ 38,913,412.00	Certified in MTEP20
Line Clearance Mitigation Program 2021	2024		various	Line Clearance	Planned	A in MTEP20	14913	\$ 3,791,502.00	Certified in MTEP20
Physical Security Program 2021	2024		various	Physical Security	Planned	A in MTEP20	14915	\$ 17,908,909.00	Certified in MTEP20
Load Interconnection Program 2021	2024		various	T-D Interconnection	Planned	A in MTEP20	14907	\$ 20,124,594.00	Certified in MTEP20
Communication Reliability Program 2022	2025		various	Communication	Proposed	A in MTEP21	14965	\$ 8,500,000.00	
Small Capital Project and Asset Renewal Program 2022	2025		various	Condition and Performance	Proposed	A in MTEP21	14964	\$ 55,000,000.00	
Line Clearance Mitigation Program 2022	2025		various	Line Clearance	Proposed	A in MTEP21	14966	\$ 7,500,000.00	
Physical Security Program 2022	2025		various	Physical Security	Proposed	A in MTEP21	14967	\$ 15,000,000.00	
Load Interconnection Program 2022	2025		various	T-D Interconnection	Proposed	A in MTEP21	14968	\$ 32,500,000.00	

LEGEND

No Shading = No change to project since previous Assessment

Orange Shading = new project, was not in previous Assessment project list

Gray Shading = Some Change has happened since the last posted list

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

COMMONLY USED DEFINITIONS

DIC - Distribution Interconnection
GIA - Generator Interconnection Agreement

GIC - Generator Interconnection MPFCA - Multi-Party Facility Agreement

MISO MTEP Appendix - Indicates MTEP Cycle, Cycles MTEP20 and prior are Certified in MISOs' Regional Plan for A projects (BOLDED), MTEP21 and future cycles are not yet certified at the time of publication (10201).