	In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost	Explanation
Caroline SS, Transformer (T31) 69kV Breaker and Relay Asset Renewals	2021	1	Condition and Performance	Planned	A in MTEP18	14986	\$ 4,500,000.00	
Whitcomb SS, Transformer (T31) 69kV Breaker Asset Renewals	2021	1	Condition and Performance	Planned	A in MTEP18	14986	\$ 4,500,000.00	
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	
Brooks Corners SS, DIC, Transformer Addition	2021	1	T-D Interconnection	Planned	A in MTEP20	14907	\$ 478,000.00	In-Service
Hilltop SS, Install 69kV Breakers	2022	1	Condition and Performance	Planned	A in MTEP17	12031	\$ 1,200,000.00	
Waupaca Area Energy Storage Project	2022	1	Operational Flexibility	Planned	A in MTEP19	15947	\$ 8,071,000.00	
Waupaca SS, DIC, transformer addition Winneconne SS, Relay and Breaker Replacement	2022 2022	1	T-D Interconnection Condition and Performance	Planned Planned	A in MTEP20 A in MTEP18	18053 13243	\$ 5,200,000.00 \$ 2,900,000.00	
Maine - Hilltop 115kV line (U-11), uprate	2022	1	Reliability	Planned	A in MTEP18	14909	\$ 835,000.00	
J986 7 Mile Creek SS, Generator Interconnection Facilities and Network Upgrades	2022	1	G-T Interconnection	Planned	A in MTEP21	20625	\$ 17.564.028.00	Provisional to Planned / Expected MTEP21 Target A Approval / Updated Cost
Wittenburg SS, DIC Substation Retirement	2022	1	T-D Interconnection	Planned	A in MTEP20	14907	\$ 89,000.00	
Port Edwards SS, DIC, Transformer Retirement	2022	1	T-D Interconnection	Planned	A in MTEP21	14968	\$ 1,120,000.00	
Petenwell - Saratoga 138kV (X-43), Line Rebuild	2023	1	Reliability, Economic	Planned	A in MTEP20	18017	\$ 24,500,000.00	
Chaffee Creek - Lincoln Pump Station 69kV (Y-18), Rebuild	2023	1	Condition and Performance	Planned	A in MTEP18	10486	\$ 9,600,000.00	
Wautoma - Chaffee Creek 69kV (Y-49), Rebuild  J732 Superior SS Generator Interconnection Facilities and Network Upgrades	2023	1	Condition and Performance	Planned	A in MTEP18	7764	\$ 14,500,000.00	
Weston - Sherman Street, 115kV line (Z-52), uprate	2023	1	G-T Interconnection	Planned	A in MTEP21	19729	\$ 21,245,605.00	Expected MTEP21 Target A Approval
Weston - Snerman Street, 115kV line (2-52), uprate  Chaffee Creek SS Grounding Improvements	2023 2023	1	Reliability G-T Interconnection	Planned Planned	A in MTEP20 A in MTEP22	14909 21814	\$ 997,000.00 \$ 220,000.00	Target A in MTEP22
Hancock SS Grounding Improvements	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 220,000.00	Target A in MTEP22
Hollywood SS Grounding Improvements	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 696,730,00	Target A in MTEP22
J1002 Wautoma SS Network Upgrades and Interconnection Facilities	2023	1	G-T Interconnection	Planned	A in MTEP22	21812	\$ 3,246,667.00	Target A in MTEP22
Roeder SS Grounding Improvements	2023	1	G-T Interconnection	Planned	A in MTEP22	22048	\$ 220,000.00	Target A in MTEP22
Sand Lake SS Grounding Improvements	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 220,000.00	Target A in MTEP22
Saratoga SS Grounding Improvements	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 672,154.00	Target A in MTEP22
Wautoma SS - Port Edwards SS, 138kV (X-11), uprate	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 519,783.00	Target A in MTEP22
Wautoma SS Grounding Improvements	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 220,000.00	Target A in MTEP22
Wautoma SS Transformer Replacement  Rocky Run Transformer Replacement	2023	1	G-T Interconnection	Planned	A in MTEP22	21814	\$ 4,738,573.00	Target A in MTEP22
Birnamwood SS, DIC new substation	2023 2024	1	Reliability T-D Interconnection	Planned Planned	A in MTEP22 A in MTEP18	21286 15128	\$ 5,408,000.00 \$ 4,500,000.00	Target A in MTEP22
Petenwell - Council Creek (X-40), OPGW Installation	2024	1	Communication	Planned	A in MTEP18	19587	\$ 9,000,000.00	Expected MTEP21 Target A Approval
Lincoln Pump Station - McKenna 69kV (Y-145), Rebuild	2024	1	Condition and Performance	Planned	A in MTEP18	7765	\$ 9,000,000.00	Expected WITE 21 Talget A Approval
Kelly SS, Replace Transformer	2024	1	T-D Interconnection	Provisional	A in MTEP20	14907	\$ 150,000.00	
McKenna - Castle Rock 69kV (Y-47), Rebuild	2025	1	Condition and Performance	Planned	A in MTEP18	7763	\$ 10,740,000.00	
Saratoga SS - Control House and Breaker Asset Renewal	2025	1	Condition and Performance	Proposed	A in MTEP22	19525	\$8,200,000.00	Updated Cost
Pittsville - Sigel 69 kV (Y-108), Rebuild	2025	1	Condition and Performance	Provisional	B in MTEP22	21922	\$ 10,000,000.00	Target B in MTEP22
Rosholt (ATC) Tap - Rosholt (ALTE) SW STR 69 kV (Y-71), Partial Rebuild	2026	1	Condition and Performance	Provisional	B in MTEP22	21921	\$ 8,100,000.00	Target B in MTEP22
Mudwater SS, DIC, New Substation	2030	1	T-D Interconnection	Planned	A in MTEP19	14906	\$391,500.00	Updated ISY
Distribution Interconnection Current Cycle	2021	various	T-D Interconnection	Planned	A in MTEP18	14904	\$ 6,436,258.00	
Small Capital Project and Asset Renewal Current Cycle	2022	various	Condition and Performance	Planned	A in MTEP18	13821	\$ 38,457,451.00	
Communication Reliability Upgrades 2019 Small Capital Project and Asset Renewal 2019	2022	various	Condition	Planned Planned	A in MTEP18 A in MTEP18	13829 13822	\$ 1,422,500.00	
Line Clearance Mitigation Project 2019	2022 2022	various various	Condition and Performance Line Clearance	Planned	A in MTEP18	13822	\$ 8,007,814.00 \$ 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	2022	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	
Physical Security Current Cycle	2024	various	Physical Security	Planned	A in MTEP18	13826	\$ 67,198,396.00	·
Communication Reliability Program 2021	2024	various	Communication	Planned	A in MTEP20	14911	\$ 10,927,208.00	
Small Capital Project and Asset Renewal Program 2021	2024	various	Condition and Performance	Planned	A in MTEP20	14909	\$ 38,913,412.00	
Line Clearance Mitigation Program 2021	2024	various	Line Clearance	Planned	A in MTEP20	14913	\$ 3,791,502.00	
Physical Security Program 2021	2024	various	Physical Security	Planned	A in MTEP20	14915	\$ 17,908,909.00	
Load Interconnection Program 2021	2024	various	T-D Interconnection	Planned	A in MTEP20	14907	\$ 20,124,594.00	D. 1. D. 1/E . INTERNAL . A. 1/1/
Communication Reliability Program 2022 Small Capital Project and Asset Renewal Program 2022	2025	various	Condition	Planned	A in MTEP21	14965	\$ 19,252,066.00	Proposed to Planned/ Expected MTEP21 Target A Approval/ Updated Cost
Small Capital Project and Asset Renewal Program 2022  Line Clearance Mitigation Program 2022	2025 2025	various	Condition and Performance Line Clearance	Planned	A in MTEP21 A in MTEP21	14964 14966	\$ 52,320,773.00 \$ 2,832,841.00	Proposed to Planned/ Expected MTEP21 Target A Approval/ Updated Cost Proposed to Planned/ Expected MTEP21 Target A Approval/ Updated Cost
Physical Security Program 2022	2025	various various	Physical Security	Planned	A in MTEP21	14966	\$ 2,832,841.00 \$ 11,797,871.00	Proposed to Planned/ Expected MTEP21 Target A Approval/ Updated Cost  Proposed to Planned/ Expected MTEP21 Target A Approval/ Updated Cost
	2025	various	T-D Interconnection	Planned	A in MTEP21	14967	\$ 27,586,994.00	Proposed to Planned/ Expected MTEP21 Target A Approval/ Opdated Cost  Proposed to Planned/ Expected MTEP21 Target A Approval/ Updated Cost

	2021 Est. In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost	Explanation
Communication Reliability Program 2023	2026	various	Communication	Provisional	A in MTEP22	16767	\$ 7,000,000.00	Target A in MTEP22
Small Capital Project and Asset Renewal Program 2023	2026	various	Condition and Performance	Provisional	A in MTEP22	16766	\$ 65,000,000.00	Target A in MTEP22
Line Clearance Mitigation Program 2023	2026	various	Line Clearance	Provisional	A in MTEP22	16768	\$ 6,000,000.00	Target A in MTEP22
Physical Security Program 2023	2026	various	Physical Security	Provisional	A in MTEP22	16769	\$ 1,800,000.00	Target A in MTEP22
Load Interconnection Program 2023	2026	various	T-D Interconnection	Provisional	A in MTEP22	16770	\$ 37,000,000.00	Target A in MTEP22

## LEGEND

No Shading = No change to project since previous Assessment Green Shading = Project In-Service (Interim Updates Only)

Orange Shading = new project, was not in previous Assessment project list
Gray Shading = Some Change has happened since the last posted list

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 (10/2021).