	2020 Estimated			Planned /	MISO MTEP Appendix			
	In-Service			Proposed /	(BOLD =	MTEP		
Project Name	Year	ZONE	Need Category	Provisional	Certified)	PRJID		Cost
Hilltop SS, Install 69kV Breakers	2020	1	Condition and Performance	Planned	A in MTEP17	12031	\$	1,000,000.00
Wild Rose - Harrison 69kV (Y-19), Partial Rebuild	2020	1	Condition and Performance	Planned	A in MTEP18	12147	\$	14,400,000.00
Big Pond SS. Retire Substation	2020	1	Retirement	Planned	A in MTEP18	13831	Ś	454.000.00
Eagle River Cranberry SS, DIC, 2nd Transformer	2020	1	T-D Interconnection	Planned	A in MTEP19	14906	Ý	\$202,000.00
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	Ý	\$870,000.00
Caroline SS, Transformer (T31) 69kV Breaker and Relay Asset Renewals	2021	1	Condition and Performance	Planned	A in MTEP18	14986	Ś	4,488,625.00
Harrison North SS, Breaker Addition	2021	1	Condition and Performance	Planned	A in MTEP18	13821	Ŷ	\$2,000,000.00
Harrison SS. Install 69kV Breakers	2021	1	Condition and Performance	Planned	A in MTEP17	12051	\$	2,700,000.00
Saratoga - Coyne 115kV (T-72), Rebuild	2021	1	Condition and Performance	Planned	A in MTEP17	12031	\$	6,600,000.00
Whitcomb SS, Transformer (T31) 69kV Breaker Asset Renewals	2021	1	Condition and Performance	Planned	A in MTEP18	14987	\$	5,469,503.00
J821 Zenith SS Generator Interconnection Facilities and Network Upgrades	2021	1	G-T Interconnection	Planned	A in MTEP20	18567	Ś	7.235.132.00
Waupaca Area Energy Storage Project	2021	1	Operational Flexibility	Planned	A in MTEP19	15947	\$	8,071,000.00
Baker St SS, Add new 115-kV bus and bus tie breaker	2021	1	T-D Interconnection	Planned	A in MTEP19	12115	\$ \$	5,800,000.00
Birnamwood SS, DIC replace transformer and substation rebuild	2021	1	T-D Interconnection	Planned	A in MTEP17	15128	\$	130,000.00
Pine SS, DIC, Transformer Replacement	2021	1	T-D Interconnection	Planned	A in MTEP18	14907	Ş	\$165,000.00
Petenwell - Saratoga 138kV (X-43), Line Rebuild	2021	-		Planned		14907	Ś	24.500.000.00
Mudwater SS, DIC, New Substation	-	1	Reliability, Economic		A in MTEP20		Ş	,,
Waupaca SS, DIC, transformer addition	2022	1	T-D Interconnection	Planned	A in MTEP18	14906	ć	\$391,500.00
Chaffee Creek - Lincoln Pump Station 69kV (Y-18), Rebuild	2022	_	T-D Interconnection	Planned	A in MTEP20	18053	\$	6,900,000.00
	2023	1	Condition and Performance	Planned	A in MTEP18	10486	\$	9,600,000.00
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	1	Condition and Performance	Planned	A in MTEP18	13243	\$	2,150,000.00
J732 Superior SS Generator Interconnection Facilities and Network Upgrades	2023	1	G-T Interconnection	Planned	A in MTEP20	19729	\$	21,245,605.00
Birnamwood SS, DIC new substation	2023	1	T-D Interconnection	Planned	A in MTEP18	15128	\$	4,500,000.00
Petenwell - Council Creek (X-40), OPGW Installation	2024	1	Communication	Planned	A in MTEP21	19587	\$	9,000,000.00
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
Weston - Sherman Street, 115kV line (Z-52), uprate	2023	1	Reliability	Proposed	A in MTEP20	14909	\$	997,000.00
Maine - Hilltop 115kV line (U-11), uprate	2023	1	Reliability	Proposed	A in MTEP20	14909	\$	835,000.00
Saratoga SS - Control House and Breaker Asset Renewal	2024	1	Condition and Performance	Proposed	B in MTEP21	19525		\$6,319,095.00
Venus SS, new inductor bank	2024	1	Reliability	Provisional	B in MTEP19	15945	\$	1,800,000.00
J928 - Garden Corners SS, GIC Network Upgrades	2020	2	G-T Interconnection	Planned	A in MTEP19	16494	\$	304,855.00
North Lake - M-38 138kV (NLKG31), Rerate	2020	2	Line Clearance	Planned	A in MTEP18	15284	\$	1,500,000.00
Mackinac - McGulpin 138kV (9901 and 9903), submarine cable replacement	2021	2	Condition and Performance	Planned	A in MTEP18	15145	\$	105,000,000.00
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
NLKG31 Tap - Greenstone 138kV, construct new transmission line	2022	2	Condition and T-D Interconnection	Planned	A in MTEP19	15933	\$	5,200,000.00
J849, Chandler SS, Interconnection Facilities and Network Upgrades	2022	2	G-T Interconnection	Planned	A in MTEP19	16492	\$	3,036,785.00
Atlantic SS, 138/69kV Bus Reconfiguration and Transformer Addition	2022	2	Operational Flexibility and Asset Renewal	Planned	A in MTEP19	7586	\$	11,600,000.00
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
Dead River SS - Control House and Breaker Replacement Asset Renewal	2024	2	Condition and Performance	Planned	A in MTEP21	19346		\$4,847,000.00
Central UP, new DIC	2023	2	T-D Interconnection	Proposed	A in MTEP18	15133	\$	6,200,000.00
Eastern UP, new DIC	2023	2	T-D Interconnection	Proposed	A in MTEP18	15130	\$	12,593,000.00
Winona - Atlantic 69kV (Winona69), rebuild	2024	2	Reliability	Proposed	A in MTEP20	4727	\$	13,900,000.00
Keel Ridge SS, new DIC	2025	2	T-D Interconnection	Proposed	A in MTEP18	13792	\$	2,600,000.00
9 mile SW STA – Portage (6901/6902), 69kV, Re-insulate	2023	2	Condition and Performance	Provisional	B in MTEP20	18049	Ś	3,000,000.00
Marquette County Reactive Power Project	2023	2	Reliability	Provisional	B in MTEP21	19965	Ś	8,000,000.00
Munising Area Reactive Power Project	2023	2	Reliability	Provisional	B in MTEP21	19966	Ś	5,000,000.00
Empire SS, Control House Replacement and Breaker & Relay Asset Renewal	2023	2	Condition and Performance	Provisional	A in MTEP21	16489	Ś	6,732,000.00
	2024	2	Condition and Ferrormance	riovisional	AIIIWILFZI	10409	Ļ	0,732,000.00

	2020				MISO MTEP			
	Estimated			Planned /	Appendix	MTED		
Project Name	In-Service Year	ZONE	Need Category	Proposed / Provisional	(BOLD = Certified)	MTEP PRJID		Cost
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Forsyth - Gwinn 69kV, new line	2024	2	Operational Flexibility	Provisional	B in MTEP20	18018	\$	4,000,000.00
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
North Lake - Greenstone 69kV (NLKY11), Rebuild	2026	2	Condition and Performance	Provisional			\$	14,000,000.00
Arnold SS, 80 MVAR Inductor Bank	2027	2	Reliability	Provisional	B in MTEP18	14187	\$	6,300,000.00
Mass - Conover 69kV (6530), Replace select poles, reinsulate	2028	2	Condition and Performance	Provisional	B in MTEP19	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 Sycamore SS, Install 69kV Breakers	2020	3	Condition and Performance	Planned	A in MTEP17	9968	\$	12,000,000.00
Blount - East Campus, 69kV, (6907), underground cable replacement	2020	3	Condition and Performance	Planned	A in MTEP17	12183	\$	2,755,829.00
Dam Heights SS, DIC and new radial line		3	Damage	Planned	A in MTEP20	18848	\$	9,000,000.00
Columbia SS, Breaker Replacement Asset Renewal	2020	3	T-D Interconnection	Planned	A in MTEP18	15045 13821	\$	4,200,000.00
Dane - Waunakee 69kV (Y-143), Rebuild	2021	3	Condition and Performance Condition and Performance	Planned Planned	A in MTEP18 A in MTEP17	12177	\$ \$	1,778,000.00 7,000,000.00
Hillside SS, Relay and Breaker Replacements	2021	3	Condition and Performance	Planned		13802	\$ \$	1,600,000.00
Sheepskin - Stoughton 69kV (Y-12), Rebuild	2021	3	Condition and Performance	Planned	A in MTEP18 A in MTEP17	7600	\$ \$	9,800,000.00
Darlington SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP17	19268	ş Ş	202,295.00
Dodgeville SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19208	ş S	202,295.00
Eden - Lands End 69kV, Loop into Highland SS	2021	3	G-T Interconnection	Planned	A in MTEP20	17525	s S	13,674,246.00
Eden - Highland (X-147) 138kV, uprate	2021	3	G-T Interconnection	Planned	A in MTEP20	19269	\$ \$	695,243.00
Eden SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19209	Ś	794,591.00
Elkhorn - North Lake Geneva (X-55) 138 kV, uprate	2021	3	G-T Interconnection	Planned	A in MTEP20	19240	Ś	372,880.00
Falcon SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19245	Ś	147,624.00
Highland - Spring Green (X-17) 138kV, Uprate	2021	3	G-T Interconnection	Planned	A in MTEP20	17525	Ś	2,981,519.00
Hill Valley SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19246	Ś	611,927.00
Hillman SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19248	Ś	181,784.00
Hillman SS, Upgrade Transformer	2021	3	G-T Interconnection	Planned	A in MTEP20	19268	Ś	3,132,719.00
J584 GIC Jordan SS, Generator Interconnection Facilities and Network Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP19	16493	\$	6,200,858.00
J807 Falcon SS Generator Interconnection Facilities and Network Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	18566	\$	870,186.00
J855 Ebenezer SS Generator Interconnection Facilities and Network Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	18665	Ś	5,526,333.00
J947 Tennyson SS Generator Interconnection Facilities and Network Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19145	\$	5,608,810.00
Nelson Dewey SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19267	\$	537,753.00
North Monroe - Bass Creek (X-12) 138 kV, uprate	2021	3	G-T Interconnection	Planned	A in MTEP20	19268	\$	402,454.00
North Monroe SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19247	\$	199,855.00
Rock Branch SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19226	\$	220,000.00
Rock River SS, Bus Switch Upgrade	2021	3	G-T Interconnection	Planned	A in MTEP20	19268	\$	182,621.00
Spring Green SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19269	\$	220,000.00
Cross Country SS, DIC, Install New Breakers	2021	3	T-D Interconnection	Planned	A in MTEP19	14906	\$	630,000.00
Milton Lawns SS, DIC add 2nd transformer and line breakers	2021	3	T-D Interconnection	Planned	A in MTEP18	15131	\$	3,000,000.00
Muscoda SS, DIC add 2nd transformer and substation rebuild	2021	3	T-D Interconnection	Planned	A in MTEP18	15124	\$	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	14906	\$	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
Bristol - Elkhorn (X-81) 138 kV, uprate	2022	3	G-T Interconnection	Planned	A in MTEP20	19146	\$	790,866.00
Concord - Cooney (9042) 138kV, Reconductor	2022	3	G-T Interconnection	Planned	A in MTEP20	18925	\$	3,363,101.00
J818 Jefferson SS Generator Interconnection Facilities and Network Upgrades	2022	3	G-T Interconnection	Planned	A in MTEP20	18925	\$	1,669,458.00
J850 North Creek SS Generator Interconnection Facilities and Network Facilities	2022	3	G-T Interconnection	Planned	A in MTEP20	19146	\$	6,104,293.00
J864 Lone Rock SS Generator Interconnection Facilities and Network Upgrades	2022	3	G-T Interconnection	Planned	A in MTEP20	19225	\$	1,767,400.00
North Lake Geneva Tap - Burlington SS (6541) 138 kV, uprate	2022	3	G-T Interconnection	Planned	A in MTEP20	19146	\$	1,232,351.00
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

	2020 Estimated In-Service			Planned / Proposed /	MISO MTEP Appendix (BOLD =	MTEP		
Project Name	Year	ZONE	Need Category	Provisional	Certified)	PRJID		Cost
J819 Darlington SS Generator Interconnection Facilities and Network Upgrades	2023	3	G-T Interconnection	Planned			\$	1,655,059.00
Rock River SS (X-74) Terminal Upgrade	2023	3	G-T Interconnection	Planned				
South Monroe - Browntown (Y-155) 69kV, rebuild	2023	3	G-T Interconnection	Planned			\$	9,785,195.00
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
Nelson Dewey SS - Control House, Relay Asset Renewal	2024	3	Condition and Performance	Planned	A in MTEP21	19105	\$	6,170,000.00
Portage - Columbia 138kV (X-13/X-20), rebuild existing double circuit	2024	3	Reliability	Planned	A in MTEP19	4730	\$	11,500,000.00
Pflaum SS, Asset Renewal	2025	3	Condition and Performance	Planned	A in MTEP18	13768	\$	2,075,688.00
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
West Middleton - Stagecoach 69kV (6927), Partial Rebuild	2023	3	Reliability	Proposed	A in MTEP20	12175	\$	2,735,023.00
Tokay SS, DIC, Add Transformer	2023	3	T-D Interconnection	Proposed	A in MTEP20	14907	Ś	500,000.00
Spring Green - Wick Drive (Y-170), 69kV, uprate	2024	3	Reliability	Proposed	A in MTEP21	14964	Ś	1.500.000.00
Hillman - Darlington 138kV (X-14/X-101), Rebuild	2028	3	Condition and Performance	Proposed	A in MTEP18	4726	\$	21,090,000.00
Drumlin SS, DIC, New Substation	2023	3	T-D Interconnection	Provisional	A in MTEP21	19806	Ś	3,500,000.00
Academy - Columbus 69kV (Y-21), Rebuild	2024	3	Condition and Performance	Provisional	A in MTEP21	10590	\$	6,000,000.00
Kirkwood SS, Control House, Transformer and Breaker Asset Renewal	2024	3	Condition and Performance	Provisional	A in MTEP21	19963	Ś	7,571,000.00
Darlington - Rock Branch 69kV (Y-109), Rebuild	2025	3	Condition and Performance	Provisional	B in MTEP20	18046	\$	16,600,000.00
Nelson Dewey - Bloomington (Y-184), 69kV, rebuild & OPGW	2025	3	Reliability, Condition and Performance	Provisional	B in MTEP21	19962	Ś	15,250,000.00
South Beaver Dam - Horicon 69kV (Y-134), Rebuild	2025	3	Condition and Performance	Provisional	B in MTEP21 B in MTEP20	19902	\$	14,000,000.00
Gran Grae SS, Install a second 161/69kV transformer	2026	3	Reliability	Provisional			Ş Ş	8,200,000.00
Rock Branch - Dodgeville 69kV (Y-35), Partial Rebuild	2028	3	,				Ş	, ,
South Fond du Lac - Spring Brook 69kV (Y-133), Partial rebuild		-	Condition and Performance	Provisional			Ŧ	9,000,000.00
Cardinal - Blount 138kV, construct	2030	3	Condition and Performance	Provisional	B in MTEP18	13739	\$	17,000,000.00
	2031	3	Reliability	Provisional	B in MTEP21	1730	\$	109,000,000.00
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	2020	4	Reliability	Planned	A in MTEP18	13727	\$	1,900,000.00
30th Avenue SS, DIC, replace transformer	2020	4	T-D Interconnection	Planned	A in MTEP18	14905	\$	2,200,000.00
Kaukauna Utilities Combine Locks SS, DIC, replace transformer	2020	4	T-D Interconnection	Planned	A in MTEP18	14905	\$	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
Menominee SS, DIC, Retire Transformer	2021	4	Condition and Performance	Planned	A in MTEP20	14909	\$	417,000.00
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	4	Condition and Performance	Planned	A in MTEP18	14988	\$	5,700,000.00
J505 GIC Apollo SS, Generator Interconnection and Network Facilities	2021	4	G-T Interconnection	Planned	A in MTEP18	14925	\$	8,300,000.00
20th Street SS, Install two 138kV 8.16 MVAR Capacitor Banks	2021	4	Reliability	Planned	A in MTEP19	14908	\$	2,500,000.00
Huebner SS, Install two 138kV 8.16 MVAR Capacitor Banks	2021	4	Reliability	Planned	A in MTEP19	14908	\$	2,400,000.00
Ryan St SS, DIC, Retire Substation	2021	4	T-D Interconnection	Planned	A in MTEP18	14904	\$	476,000.00
Bayport - Pioneer 138kV, rebuild as a double-circuit	2022	4	Condition and Performance	Planned	A in MTEP18	14706	\$	47,400,000.00
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	4	Condition and Performance	Planned	A in MTEP18	12141	\$	1,520,000.00
New Holstein - Custer 69kV (P-68), Rebuild	2022	4	Condition and Performance	Planned	A in MTEP18	7584	\$	32,800,000.00
Pioneer - Crivitz 138kV (E-83/B-2), retire 69kV and reconfigure load to 138kV	2022	4	Condition and Performance	Planned	A in MTEP18	14926	\$	20,400,000.00
Pulliam SS, Transformer Retirement and Bus Reconfiguration	2022	4	Condition and Performance	Planned	A in MTEP18	14926	\$ \$	4.000.000.00
Wesmark SS, Relay and Breakers	2022	4	Condition and Performance	Planned	A in MTEP20	13747	\$	4,000,000.00 811,572.00
Riverside SS, Bus Uprate	-	4				-	'	,
Bayridge SS, Bus Uprate	2022		Reliability	Planned	A in MTEP18	13832	\$	80,000.00
Construct T-D Roosevelt Road Substation	2022	4	T-D Interconnection	Planned	A in MTEP16	10485	\$	2,122,335.00
	2022	4	T-D Interconnection	Planned	A in MTEP16	10686	\$	1,102,365.00

	2020 Estimated In-Service			Planned / Proposed /	MISO MTEP Appendix (BOLD =	MTEP		
Project Name	Year	ZONE	Need Category	Provisional	Certified)	PRJID		Cost
Henry St. SS, DIC, Retire Substation	2022	4	T-D Interconnection	Planned	A in MTEP20	14907	\$	96,000.00
Preble SS, DIC, add 4th transformer and substation rebuild	2022	4	T-D Interconnection	Planned	A in MTEP20	17628	\$	3,498,694.00
Stiles SS - West Marinette SS (M117/L142), OPGW Installation	2023	4	Communication	Planned	A in MTEP19	15936	\$	5,600,000.00
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	2023	4	Condition and Performance	Planned	A in MTEP20	18019	\$	2,200,000.00
Lost Dauphin - Red Maple 138kV (Q-147), uprate	2023	4	Reliability	Planned	A in MTEP21	14964	\$	635,000.00
Sheboygan County SS, DIC, substation rebuild	2023	4	T-D Interconnection	Planned	A in MTEP20	18051	\$	8,000,000.00
Crivitz SS - Transformer Replacement and Asset Renewal	2024	4	Condition and Performance	Planned	A in MTEP21	19705	\$	4,344,701.00
North Appleton SS - Transformer Replacement and Asset Renewal	2024	4	Condition and Performance	Planned	A in MTEP21	19706	\$	7,811,645.00
Wesmark - Rapids 69kV (R-44), Rebuild	2024	4	Condition and Performance	Planned	A in MTEP18	12135	\$	21,500,000.00
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	4	T-D Interconnection	Planned	A in MTEP18	15126	\$	5,100,000.00
Oak St - Hwy V 69kV (Z-26), Rebuild	2025	4	Condition and Performance	Planned	A in MTEP18	12137	\$	9,000,000.00
Danz Ave SW STA - University (WPS) 69kV (O-15), underground rebuild & OPGW	2023	4	Condition and Performance	Proposed	A in MTEP19	15924	\$	14,800,000.00
Edgewater - Lodestar 138kV (X-48/Y-31), Underground cable rebuild	2023	4	Condition and Performance	Proposed	A in MTEP19	15925	\$	11,400,000.00
East Krok - Beardsley, (EAKY11), 69kV, uprate	2023	4	Reliability	Proposed	A in MTEP21	14964	Ś	2,300,000.00
Howards Grove - Erdman 138kV, new line	2023	4	Reliability	Proposed	A in MTEP20	18568	\$	25,000,000.00
12th Avenue SS, DIC, Transformer Replacement	2023	4	T-D Interconnection	Proposed	A in MTEP20	14907	\$	1,778,000.00
Wells St. DIC – new West Marinette-Wells St. 69 kV line	2023	4	T-D Interconnection	Provisional	A in MTEP21	19961	\$	14,500,000.00
Meguon SS Replace Line Breakers and Relay Asset Renewal	2020	5	Asset Renewal	Planned	A in MTEP18	13822	\$	1,855,524.00
Merrill Hills SS Line Breaker Additions	2020	5	Asset Renewal	Planned	A in MTEP19	14908	\$	1,093,000.00
Pennsylvania SS, Relay, Breaker and Disconnect Switch Asset Renewal	2020	5	Asset Renewal	Planned	A in MTEP18	13821	\$	1,115,352.00
Juneautown SS. new T-D Interconnection	2020	5	T-D Interconnection	Planned	A in MTEP18	13104	\$	33,884,000.00
Bain SS, Control House and Breaker Asset Renewal	2021	5	Condition and Performance	Planned	A in MTEP19	15932	Ś	8,500,000.00
Burlington SS, Install 138kV Breakers	2021	5	Condition and Performance	Planned	A in MTEP17	12058	Ś	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	2021	5	Reliability	Planned	A in MTEP16	9986	\$	21,000,000.00
Arcadian SS, Construct T-D	2021	5	T-D Interconnection	Planned	A in MTEP17	13067	\$	514,000.00
River Bend SS, Add 2nd Transformer	2021	5	T-D Interconnection	Planned	A in MTEP19	14906	Ś	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	2022	5	Condition and Performance	Planned	A in MTEP18	13735	\$	8,400,000.00
Summit - Cooney 138kV (6431), Rebuild	2022	5	Condition and Performance	Planned	A in MTEP19	15457	\$	4,100,000.00
Berryville SS Grounding System Upgrades	2022	5	G-T Interconnection	Planned	A in MTEP20	18985	\$	328,807.00
Elkhorn SS Grounding System Upgrades	2022	5	G-T Interconnection	Planned	A in MTEP20	18985	\$	223,683.00
J850/J878 East Paris SS, new 345/138kV transformer	2022	5	G-T Interconnection	Planned	A in MTEP20	18985	\$	24,972,611.00
J878 Paris SS Generator Interconnection Facilities and Network Upgrades	2022	5	G-T Interconnection	Planned	A in MTEP20	19265	\$	1,973,438.00
Paris SS Grounding System Upgrades	2022	5	G-T Interconnection	Planned	A in MTEP20	19265	Ś	380,402.00
Kenosha SS, Breaker, Relay, RTU and Disconnect Asset Renewal	2023	5	Condition and Performance	Planned	A in MTEP20	14909	Ś	1.878.000.00
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
Granville SS, Control House and Relay Replacement and Asset Renewal	2024	5	Condition and Performance / Reliability	Proposed	A in MTEP21	16490	Ś	28,949,044.00
Germantown SS DIC, Install additional transformer	2022	5	T-D Interconnection	Provisional	A in MTEP20	14907	Ś	6,000,000.00
Sussex to Bark River (46143/2661), 138kV, OPGW Installation	2023	5	Communication	Provisional	B in MTEP21	19959	Ś	4,250,000.00
Lincoln - Bluemound (43rd St) 138kV (5053), replace underground cable	2024	5	Condition and Performance	Provisional	A in MTEP21	18048	Ś	30,000,000.00
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	2021	various	Condition and Performance	Planned	A in MTEP18	13821	\$	38,457,451.00
Line Clearance Mitigation Project Current Cycle	2021	various	Line Clearance	Planned	A in MTEP18	13824	\$	18,718,669.00
Physical Security Current Cycle	2021	various	Physical Security	Planned	A in MTEP18	13826	\$	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
Small Capital Project and Asset Renewal 2019	2022	various	Condition and Performance	Planned	A in MTEP18	13822	\$	8,007,814.00

Project Name	2020 Estimated In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID		Cost
Line Clearance Mitigation Project 2019	2022	various	Line Clearance		A in MTEP18	-	ć	
Physical Security 2019	2022			Planned	A in MTEP18	13825	> ¢	5,832,204.00
	-	various	Physical Security	Planned		13828	\$	3,000,000.00
Distribution Interconnection 2019	2022	various	T-D Interconnection	Planned	A in MTEP18	14905	Ş	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 Upgrades 2021	2024	various	Communication	Planned	A in MTEP20	14911	\$	10,927,208.00
Small Capital Project and Asset Renewal 2021	2024	various	Condition and Performance	Planned	A in MTEP20	14909	\$	38,913,412.00
Line Clearance Mitigation Project 2021	2024	various	Line Clearance	Planned	A in MTEP20	14913	\$	3,791,502.00
Physical Security 2021	2024	various	Physical Security	Planned	A in MTEP20	14915	\$	17,908,909.00
Load Interconnection 2021	2024	various	T-D Interconnection	Planned	A in MTEP20	14907	\$	20,124,594.00
Communication Reliability Upgrades 2022	2025	various	Communication	Proposed	A in MTEP21	14965	\$	8,500,000.00
Small Capital Project and Asset Renewal 2022	2025	various	Condition and Performance	Proposed	A in MTEP21	14964	\$	67,000,000.00
Line Clearance Mitigation Project 2022	2025	various	Line Clearance	Proposed	A in MTEP21	14966	\$	7,500,000.00
Physical Security 2022	2025	various	Physical Security	Proposed	A in MTEP21	14967	\$	15,000,000.00
Load Interconnection 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, wa	as not in previous Assessment project list					
Gray Shading = some change (e.g. In-se	ervice 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 MTEP19 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 (9/2020).						