	2020				MISO MTEP			
	Estimated			Planned /	Appendix			
Duckest Name	In-Service	70NE	Need Coteman	Proposed /	(BOLD =	MTEP		04
Project Name	Year	ZONE	Need Category	Provisional	Certified)	PRJID		Cost
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
Dam Heights SS, DIC and new radial line	2020	3	T-D Interconnection	Planned	A in MTEP18	15045	\$	4,200,000.00
Columbia SS, Breaker Replacement Asset Renewal	2021	3	Condition and Performance	Planned	A in MTEP18	13821	\$	1,778,000.00
Dane - Waunakee 69kV (Y-143), Rebuild	2021	3	Condition and Performance	Planned	A in MTEP17	12177	\$	7,000,000.00
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
Dodgeville SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19226	\$	220,000.00
Eden - Lands End 69kV, Loop into Highland SS	2021	3	G-T Interconnection	Planned	A in MTEP20	17525	\$	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	19246	\$	794,591.00
Elkhorn - North Lake Geneva (X-55) 138 kV, uprate	2021	3	G-T Interconnection	Planned	A in MTEP20	19245	\$	372,880.00
Falcon SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19268	\$	147,624.00
Highland - Spring Green (X-17) 138kV, Uprate	2021	3	G-T Interconnection	Planned	A in MTEP20	17525	\$	2,981,519.00
Hill Valley SS Grounding System Upgrades	2021	3	G-T Interconnection	Planned	A in MTEP20	19246	\$	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	Ś	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	Ś	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	Ś	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	Ś	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		A in MTEP18	12346	\$	21,235,700.00
Orfordville SS, DIC, Capacitor Retirement and Transformer Replacement	2021	3	T-D Interconnection	Planned Planned	A in MTEP17	14906	\$	182,000.00
Portage Industrial Park SS, DIC, replace transformers and substation rebuild	2021	3				15127	\$	3,000,000.00
Waterloo SS, DIC, New 138kV Substation	_	_	T-D Interconnection	Planned	A in MTEP18		<del>'</del>	
McCue SS, Circuit Breaker Asset Renewal	2021	3	T-D Interconnection Condition and Performance	Planned Planned	A in MTEP19 A in MTEP19	14906 14908	\$	3,600,000.00 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
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

Project Name	2020 Estimated In-Service Year	ZONE	Need Category	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost
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	\$ 500,000.00
Spring Green - Wick Drive (Y-170), 69kV, uprate	2024	3	Reliability	Proposed	A in MTEP21	14964	\$ 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	\$ 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	\$ 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	\$ 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
Rock Branch - Dodgeville 69kV (Y-35), Partial Rebuild	2028	3	Condition and Performance	Provisional			\$ 9,000,000.00
South Fond du Lac - Spring Brook 69kV (Y-133), Partial rebuild	2030	3	Condition and Performance	Provisional	B in MTEP18	13739	\$ 17,000,000.00
Cardinal - Blount 138kV, construct	2031	3	Reliability	Provisional	B in MTEP21	1730	\$ 109,000,000.00

## COMMONLY USED DEFINITIONS

DIC - Distribution 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).