	A	В	С	D	E	F	G	Н	I	J
1	Project Name	2019 TYA Model Need Year	Estimated In- Service Year	ZONE	Need Category	Planning Event	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost
2	Hancock SS, Replace Transformers	2019	2019	1	T-D Interconnection		Planned	A in MTEP18	13774	\$ 4,700,000.00
3	Stratford SS, DIC add 2nd transformer and substation rebuild	2019	2019	1	T-D Interconnection		Planned	A in MTEP18	15044	\$ 3,700,000.00
4	Big Pond SS, Retire Substation	2020	2020	1	Retirement		Planned	A in MTEP18	13831	\$ 500,000.00
5	Hilltop SS, Install 69kV Breakers		2020	1	Condition and Performance		Planned	A in MTEP17	12031	\$ 1,000,000.00
6	Venus SS, Capacitor Bank Retirement	2020	2020	1	Retirement		Planned	A in MTEP18	14806	\$ 100,000.00
7	Wautoma - Wild Rose 69kV (Y-180), Partial Rebuild		2020	1	Condition and Performance		Planned	A in MTEP18	13770	\$ 5,500,000.00
8	Wild Rose - Harrison 69kV (Y-19), Partial Rebuild		2020	1	Condition and Performance		Planned	A in MTEP18	12147	\$ 14,400,000.00
9	Caroline SS, Transformer (T31) 69kV Breaker and Relay Asset Renewals		2021	1	Condition and Performance		Planned	A in MTEP18	14986	\$ 4,488,625.00
10	Rocky Run - Whitting Ave (M-91), Add OPGW		2021	1	Communication		Planned	A in MTEP19	14910	\$ 921,000.00
11	Saratoga - Coyne 115kV (T-72), Rebuild		2021	1	Condition and Performance		Planned	A in MTEP17	12178	\$ 6,800,000.00
12	Whitcomb SS, Transformer (T31) 69kV Breaker Asset Renewals		2021	1	Condition and Performance		Planned	A in MTEP18	14987	\$ 5,469,503.00
13	Chaffee Creek SS - Lincoln Pump Station 69kV (Y-18), Rebuild		2023	1	Condition and Performance		Planned	A in MTEP18	10486	\$ 9,560,000.00
14	Wautoma - Chaffee Creek 69kV (Y-49), Rebuild		2023	1	Condition and Performance		Planned	A in MTEP18	7764	\$ 14,500,000.00
15	McKenna - Castle Rock 69kV (Y-47), Rebuild		2025	1	Condition and Performance		Planned	A in MTEP18		\$ 10,740,000.00
16	Homme SS, New DIC	2020	2020	1	T-D Interconnection		Proposed	A in MTEP18	13787	\$ 371,249.00
17	Venus SS, Install 115kV Breakers		2020	1	Condition and Performance		Proposed	A in MTEP17	12466	\$ 900,000.00
18	Baker St SS, Add new 115-kV bus and bus tie breaker	2020	2021	1	T-D Interconnection		Proposed	A in MTEP17	12115	\$ 4,400,000.00
19	Harrison SS, Install 69kV Breakers		2021	1	Condition and Performance		Proposed	A in MTEP17	12051	\$ 760,508.00
20	Waupaca Area Energy Storage Project	2020	2021	1	Operational Flexibility	prior + P1.2	Proposed	A in MTEP19	15947	\$ 8,071,000.00
21	Winneconnie SS, Relay and Breaker Replacement		2021	1	Condition and Performance	·	Proposed	A in MTEP18	13243	\$ 2,800,000.00
22	Petenwell - Saratoga 138kV (X-43), Line Rebuild		2022	1	Reliability, Economic		Proposed	A in MTEP20	18017	\$ 20,026,000.00
23	Birnamwood SS, DIC replace transformer and substation rebuild	2021	2023	1	T-D Interconnection		Proposed	A in MTEP18	15128	\$ 4,500,000.00
24	Waupaca SS, DIC, transformer addition	2021	2021	1	T-D Interconnection		Provisional	B in MTEP20	18053	\$ 6,000,000.00
25	Coyne - Plover (N-92/J-114), OPGW Installation		2022	1	Communication		Provisional			\$ 2,200,000.00
26	Wautoma SS - Port Edwards OPGW, Installation		2023	1	Communication		Proposed	A in MTEP19	15935	\$ 7,300,000.00
27	Lincoln Pump Station - McKenna 69kV (Y-145), Rebuild		2025	1	Condition and Performance		Proposed	A in MTEP18	7765	\$ 9,000,000.00
28	Venus SS, new inductor bank	2022	2025	1	Reliability	P0	Provisional	B in MTEP19	15945	\$ 1,800,000.00
	M-38 SS, New 138kV Inductor Bank	2019	2019	2	Reliability	PO	Planned	A in MTEP18	14185	\$ 4,100,000.00
	Nine Mile SS, Install MODs for Sectionalizing		2019	2	Condition and Performance		Planned	A in MTEP18	13788	\$ 3,443,060.00
	Silver River SS, New 138kV Inductor Bank	2019	2019	2	Reliability	PO	Planned	A in MTEP18	14185	\$ 4,100,000.00
32	Chandler - Masonville(UPPCO) 69kV (Lakehead), Re-insulate		2020	2	Condition and Performance		Planned	A in MTEP19	14908	\$ 2,000,000.00
33	Hiawatha - Pine River 69kV (ESE_6908), Replace select poles, cross arms.		2020	2	Condition and Performance		Planned	A in MTEP18	13773	
	North Lake - M-38 138kV (NLKG31), Rerate		2020	2	Line Clearance		Planned	A in MTEP18	15284	\$ 2,500,000.00
35	Mackinac - McGulpin 138kV (9901 and 9903), submarine cable replacement		2021	2	Condition and Performance		Planned	A in MTEP18	15145	
	Atlantic SS, 138/69kV Bus Reconfiguration and Transformer Addition	2020	2022	2	Operational Flexibility	P5	Planned	A in MTEP19	7586	\$ 6,600,000.00
-	Mackinac HVDC, System Control and Monitoring (SCM) Asset Renewal	2320	2022	2	Condition and Performance		Planned	A in MTEP20	18020	\$ 4,000,000.00
	Presque Isle - Tilden 138kV, Loop and Uprate	2020	2022	2	Reliability	prior + P1.2	Planned	A in MTEP19	15345	
	Straits SS, Replace 3 138kV Breakers	2020	2022	2	Condition and Performance	P.1101 - 1 1.2	Planned	A in MTEP18	13758	\$ 2,000,000.00
	Straits, Crossing Fiber Optic Communications		2022	2	Communication		Planned	A in MTEP19	14910	\$ 2,000,000.00
	J928/J849 Indian Lake , Common Use Upgrades	2019	2019	2	G-T Interconnection		Planned	A in MTEP19	17064	\$ 200,000.00
	Nordic SS, Install 138kV Breakers	2013	2019	2	Condition and Performance		Proposed	A in MTEP17	12062	\$ 5,500,000.00
	J928 - Garden Corners SS, GIC Network Upgrades	2019	2019	2	G-T Interconnection		Planned	A in MTEP17	16494	\$ 3,500,000.00
	Central UP, new DIC	2019	2020	2	T-D Interconnection		Proposed	A in MTEP19	15133	

2019 TYA Model Need Year	Estimated In-				Planned /	MISO MTEP		
	Service Year	ZONE	Need Category	Planning Event	Proposed / Provisional	Appendix (BOLD = Certified)	MTEP PRJID	Cost
2021	2022	2	T-D Interconnection		Proposed	A in MTEP18	15130	\$ 12,600,000.00
2022	2022	2	G-T Interconnection		Planned	A in MTEP19	16492	\$ 3,036,785.00
2022	2022	2	Condition and T-D Interconnection		Proposed	A in MTEP19	15933	\$ 5,200,000.00
2025	2024	2	T-D Interconnection		Proposed	A in MTEP18	13792	\$ 2,600,000.00
2022	2022	2	Reliability	P0	Provisional	B in MTEP18	14187	< 10 M
	2023	2	Condition and Performance		Provisional			\$ 1,420,000.00
	2023	2	Operational Flexibility		Provisional	B in MTEP20	18018	\$ 4,000,000.00
	2024	2	Condition and Performance		Provisional	B in MTEP20	18049	\$ 2,200,000.00
	2024	2	Condition and Performance		Provisional			\$ 1,510,000.00
	2024	2	Condition and Performance		Provisional			\$ 14,000,000.00
	2025	2	Condition and Performance		Provisional	B in MTEP19	16496	\$ 5,870,000.00
	2025	2	Condition and Performance		Provisional			\$ 1,410,000.00
	2025	2	Condition and Performance		Provisional	B in MTEP19	16489	\$ 6,732,000.00
	2025	2	Condition and Performance		Provisional	B in MTEP19	16495	\$ 8,560,000.00
	2025	2	Condition and Performance		Provisional	B in MTEP19	16488	\$ 5,484,000.00
2022	2025	2	Reliability	P6	Provisional	A in MTEP20	4727	\$ 30,400,000.00
	2019	3	Condition and Performance		Planned	A in MTEP16	7583	\$ 32,500,000.00
2019	2019	3	Reliability	P6	Planned	A in MTEP18	13824	\$ 288,500.00
	2019	3	Condition and Performance		Planned	A in MTEP18		\$ 6,900,000.00
	2019	3	Condition and Performance		Planned	A in MTEP16		\$ 5,375,625.00
2019	2019	3	T-D Interconnection, Reliability	P1.2	Planned	A in MTEP14		\$ 70,500,000.00
2020	2020	3	•		Planned	A in MTEP18		\$ 3,300,000.00
		3			Planned	A in MTEP18		
2019		3						\$ 1,000,000.00
		3						\$ 3,300,000.00
		1						\$ 17,720,000.00
2022				P1.2				\$ 2,000,000.00
		1 1	· · · · · · · · · · · · · · · · · · ·					\$ 5,000,000.00
		1 1					İ	\$ 4,200,000.00
							1	\$ 3,185,723.00
		1						\$ 6,600,000.00
2020								\$ 3,000,000.00
2020		1					1	\$ 13,500,000.00
								\$ 1,170,000.00
2023								\$ 492,200,000.00
2023		1	•					\$ 2,075,688.00
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2024								\$ 2,755,829.00 \$ 6,200,000.00
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	2025 2022 2022 2022 2019	2025 2024 2022 2022 2023 2023 2023 2024 2024 2024 2024	2025 2024 2 2022 2023 2 2023 2 2024 2 2024 2 2025 2 2025 2 2025 2 2025 2 2025 2 2025 2 2025 2 2025 2 2025 2 2019 3 2019 3 2019 3 2019 3 2019 2019 2020 3 2020 3 2020 3 2020 3 2020 3 2020 3 2020 3 2020 3 2020 3 2021 3 2020 3 2021 3 2021 3 2022 3 2021 3 2021 3 2022 3 2021 3 2022 3 2021 3 2022 3 2021 3 2022 3 <td> 2025 2024 2 T-D Interconnection </td> <td> 2025 2024 2 T-D Interconnection PD </td> <td> 2025 2024 2 T-D Interconnection Proposed </td> <td> 2025 2024 2 T-D Interconnection</td> <td> 2025 2024 2 T-D Interconnection</td>	2025 2024 2 T-D Interconnection	2025 2024 2 T-D Interconnection PD	2025 2024 2 T-D Interconnection Proposed	2025 2024 2 T-D Interconnection	2025 2024 2 T-D Interconnection

	A	В	С	D	E	F	G	Н	I	J
1	Project Name	2019 TYA Model Need Year	Estimated In- Service Year	ZONE	Need Category	Planning Event	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost
88	Green County, new DIC	2021	2022	3	T-D Interconnection		Proposed	A in MTEP18	15129	\$ 4,500,000.0
	Colley Road SS, Transformer Replacement and Asset Renewal		2023	3	Condition and Performance		Proposed	A in MTEP20	17585	\$ 3,150,000.0
	West Middleton SS - Stagecoach SS 69kV (6927), Partial Rebuild	2023	2023	3	Reliability	P1.2, P1.3	Proposed	A in MTEP20	12175	\$ 2,800,000.0
91	Portage SS - Columbia SS 138kV (X-13/X-20), rebuild existing double circuit	2024	2024	3	Reliability	P1.2	Planned	A in MTEP19	4730	\$ 10,000,000.0
	Hillman - Darlington 138kV (X-14/X-101), Rebuild		2026	3	Condition and Performance		Proposed	A in MTEP18	4726	\$ 21,090,000.0
93	Barneveld SS, DIC, new substation	2023	2023	3	T-D Interconnection		Provisional	B in MTEP20	18052	\$ 6,000,000.0
94	Academy - Columbus 69kV (Y-21), Rebuild		2024	3	Condition and Performance		Provisional	A in MTEP20	10590	\$ 3,150,000.0
95	Darlington - Rock Branch 69kV (Y-109), Rebuild		2025	3	Condition and Performance		Provisional	B in MTEP20	18046	\$ 16,600,000.0
96	Gran Grae SS, Install a second 161/69kV transformer	>2029	2026	3	Reliability	P1.3	Provisional			\$ 8,200,000.0
97	South Beaver Dam - Horicon 69kV (Y-134), Rebuild		2026	3	Condition and Performance		Provisional	B in MTEP20	18047	\$ 14,000,000.0
98	Rock Branch SS - Dodgeville SS 69kV (Y-35), Partial Rebuild		2027	3	Condition and Performance		Provisional			\$ 9,000,000.0
99	West Middleton SS - Pheasant Branch SS 69kV, Construct		2028	3	Condition and Performance		Provisional	С	3487	\$ 22,710,000.0
100	Blount - East Campus 69kV (6906), Replace with XLPE in existing HPFF pipe		2029	3	Condition and Performance		Provisional			\$ 9,900,000.0
10°	South Fond du Lac - Spring Brook 69kV (Y-133), Rebuild		2029	3	Condition and Performance		Provisional	B in MTEP18	13739	\$ 31,000,000.0
10	Cardinal SS - Blount SS 138kV, construct	>2029	2031	3	Reliability	P6	Provisional	С	1730	\$ 109,000,000.0
103	Forest Junction SS, Install 25 MVAR Inductor	2020	2019	4	Reliability	system intact P0	Planned	A in MTEP17	7581	\$ 1,800,000.0
104	30th Avenue SS, DIC, replace transformer	2021	2020	4	T-D Interconnection		Planned	A in MTEP18	14905	\$ 2,200,000.0
10	Caldron Falls - Goodman 69kV (J-88), Rebuild		2020	4	Condition and Performance		Planned	A in MTEP16	9977	\$ 25,206,000.0
10	Cedar Ridge Wind Generation - Mullet River 138kV (X-97), Rebuild		2020	4	Condition and Performance		Planned	A in MTEP17	12148	\$ 22,800,000.0
10	Edgewater SS - Erdmann SS 69kV (Y-31), rerate	2020	2020	4	Reliability	prior + P1.2	Planned	A in MTEP18	13824	\$ 2,000,000.0
108	Finger Road - Canal 69kV (J-10), Rebuild		2020	4	Condition and Performance		Planned	A in MTEP16	8841	\$ 56,639,999.0
109	Ogden St SS, Network Project: Ogden St - Bayshore 69kV Line Construction	2021	2020	4	T-D Interconnection		Planned	A in MTEP15	4732	\$ 10,400,000.0
110	Packaging SS, new DIC	2020	2020	4	T-D Interconnection		Planned	A in MTEP18	15132	\$ 6,500,000.0
11	Pulliam SS, Install redundant bus differential	2019	2020	4	Reliability	stability P5.5	Planned	A in MTEP18	13727	\$ 1,900,000.0
112	Redwood - First Ave 69kV (T-46), Replace the submarine cable		2020	4	Condition and Performance		Planned	A in MTEP18	8444	\$ 11,300,000.0
113	Butte Des Morts - Sunset Point 138kV, Rebuild		2021	4	Condition and Performance		Planned	A in MTEP17	12185	\$ 20,600,000.0
114	Cloverleaf SS, Replace Dead End and Switches		2021	4	Condition and Performance		Planned	A in MTEP18	13728	\$ 1,062,784.0
11	Erdman SS, Transformer and Breaker Asset Renewal		2021	4	Condition and Performance		Planned	A in MTEP19	15931	\$ 7,000,000.0
110	J505 GIC Apollo SS, Generator Interconnection and Network Facilities	2021	2021	4	G-T Interconnection		Planned	A in MTEP18	14925	\$ 8,300,000.0
11	Maes - Lake Park (20341), Add OPGW		2021	4	Communication		Planned	A in MTEP19	14910	\$ 1,200,000.0
118	Shoto SS, Transformer (T1) and Breaker Asset Renewal		2021	4	Condition and Performance		Planned	A in MTEP18	14988	\$ 5,700,000.0
119	East Krok SS - Kewaunee SS (F-84), OPGW Installation		2022	4	Communication		Planned	A in MTEP20	14911	\$ 1,560,000.0
120	Edgewater SS, Bus Reconfiguration		2022	4	Condition and Performance		Planned	A in MTEP18	13756	\$ 9,800,000.0
12	Finger Rd - Danz 69kV (L-64), Rebuild		2022	4	Condition and Performance		Planned	A in MTEP18	12141	\$ 4,230,000.0
122	Hwy V - Finger Rd 69kV (U-47), Rebuild		2022	4	Condition and Performance		Planned	A in MTEP18	12140	\$ 1,520,000.0
123	New Holstein - Custer 69kV (P-68), Rebuild		2022	4	Condition and Performance		Planned	A in MTEP18	7584	\$ 27,000,000.0
124	Riverside SS, Bus Uprate	2022	2022	4	Reliability	prior + P1	Planned	A in MTEP18	13832	\$ 80,000.0
12	Wesmark SS, Relay and Breakers		2022	4	Condition and Performance		Planned	A in MTEP18	13747	\$ 811,572.0
120	Finger Road SW STA - Wesmark 69kV (FIRY11), Rebuild		2023	4	Condition and Performance		PLanned	A in MTEP18	12134	\$ 14,400,000.0
12	7 Glenview SS, Transformer Retirement and Breaker & Relay Asset Renewal		2023	4	Condition and Performance		Planned	A in MTEP20	18019	\$ 4,799,000.0
128	Morgan SS, Breaker Asset Renewal and Facility Upgrades		2023	4	Condition and Performance		Planned	A in MTEP20	16606	\$ 5,000,000.0
129	Stiles SS - West Marinette SS (M117/L142), OPGW Installation		2023	4	Communication		Planned	A in MTEP19	15936	\$ 5,275,932.0
-	Wesmark - Rapids 69kV (R-44), Rebuild		2024	4	Condition and Performance		Planned	A in MTEP18	12135	

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1	Project Name	2019 TYA Model Need Year	Estimated In- Service Year	ZONE	Need Category	Planning Event	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost
131	Bayridge SS, new T-D Interconnection	2024	2025	4	T-D Interconnection		Planned	A in MTEP16	10485	\$ 2,000,000.00
132	Oak St - Hwy V 69kV (Z-26), Rebuild		2025	4	Condition and Performance		Planned	A in MTEP18	12137	\$ 9,000,000.00
133	Ellinwood SS, Upgrade 138kV Bus	2019	2019	4	Reliability	prior + P1	Proposed	A in MTEP17	12103	\$ 2,400,000.00
134	New Holstein SS, Install 69kV Breaker		2019	4	Condition and Performance		Proposed	A in MTEP18	13791	\$ 537,221.00
135	20th Street SS, Install two 138kV 8.16 MVAR Capacitor Banks	2019	2020	4	Reliability	prior + P1.2	Planned	A in MTEP19	14908	\$ 2,500,000.00
136	Forest Junction SS, Relieve Market Congestion	2018	2020	4	Economic	prior + P1.2	Proposed	A in MTEP18	16164	\$ 1,300,000.00
137	J886 GIC Kewaunee SS, Interconnection Facilities and Network Upgrades	2020	2020	4	G-T Interconnection		Proposed	B in MTEP20	17526	\$ 2,300,000.00
138	Manrap SS, Install 69kV Breakers		2020	4	Condition and Performance		Proposed	A in MTEP17	12184	\$ 1,336,964.00
139	Bayport SS - Pioneer SS 138kV, rebuild as a double-circuit	2021	2021	4	Condition and Performance		Proposed	A in MTEP18	14706	\$ 51,700,000.00
140	Huebner SS, Install two 138kV 8.16 MVAR Capacitor Banks	2019	2021	4	Reliability	prior + P1.2	Planned	A in MTEP19	14908	\$ 2,400,000.00
141	Eaton SS, new T-D Interconnection	2022	2022	4	T-D Interconnection		Proposed	A in MTEP16	10484	\$ 2,500,000.00
142	Edgewater SS - Lodestar SS 138kV (X-48/Y-31), Underground cable rebuild		2022	4	Condition and Performance		Planned	A in MTEP19	15925	\$ 11,400,000.00
143	Pioneer SS - Crivitz SS 138kV (E-83/B-2), retire 69kV and reconfigure load to 138kV	2022	2022	4	Condition and Performance		Proposed	A in MTEP18	14926	\$ 20,400,000.00
144	Preble SS, DIC, add 4th transformer and substation rebuild	2022	2022	4	T-D Interconnection		Proposed	A in MTEP20	17628	\$ 3,498,694.00
145	Pulliam SS, Transformer Retirement and Bus Reconfiguration	2022	2022	4	Condition and Performance		Proposed	A in MTEP20	15930	\$ 3,260,000.00
	Roosevelt SS, Construct	2022	2022	4	T-D Interconnection		Proposed	A in MTEP16	10686	\$ 1,102,365.00
	Danz Ave SW STA - University (WPS) 69kV (O-15), underground rebuild & OPGW	2022	2023	4	Condition and Performance		Planned	A in MTEP19	15924	\$ 14,800,000.00
	Edgewater SS, DIC, replace transformer and substation rebuild	2023	2023	4	T-D Interconnection		Proposed	A in MTEP18	15126	\$ 3,000,000.00
1 10	Sheboygan County SS, DIC, substation rebuild	2022	2022	4			·		18051	
	East Krok SS, Replace T1 Transformer	2022		•	T-D Interconnection		Provisional	B in MTEP20		\$ 8,000,000.00
	Howards Grove SS - Erdman SS 138kV, new line		2025	4	Condition and Performance	D.C.	Provisional			< \$10,000,000
	Lincoln SS, Bus Reconfiguration	2010	2026	4	Reliability	P6	Provisional			\$ 25,000,000.00
	Mount Pleasant Tech Interconnection	2019	2019	5	Reliability	prior + P1.2	Planned	A in MTEP18	13738	\$ 4,100,000.00
	Norwich - Barland 138kV (NWHG41), Re-insulate	2019	2019	5	T-D Interconnection		Planned	A in MTEP18	14073	
	St Lawrence SS, Breaker replacement and asset renewal		2019	5	Condition and Performance		Planned	A in MTEP18	13821	\$ 310,000.00
			2019	5	Condition and Performance		Planned	A in MTEP18	13746	\$ 253,393.00
	Waukesha SS, Relay and Breaker Replacements		2019	5	Condition and Performance		Planned	A in MTEP18	13742	\$ 836,447.00
	Arcadian SS, Construct D-T	2019	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	2019	2020	5	T-D Interconnection		Planned	A in MTEP18	14604	\$ 8,200,000.00
	Bain SS, Control House and Breaker Asset Renewal		2021	5	Condition and Performance		Planned	A in MTEP19	15932	\$ 8,500,000.00
	Paris - Burlington 138kV (8962), Rebuild		2021	5	Condition and Performance		Planned	A in MTEP18	13732	\$ 12,560,000.00
	Port Washington SS - Saukville SS 138kV (762), Rebuild to a double circuit	2021	2021	5	Reliability	P2.4, P7.1	Planned	A in MTEP16	9986	\$ 16,000,000.00
	St. Lawrence - Barton 138kV (8032), Partial Rebuild		2021	5	Condition and Performance		Planned	A in MTEP18	13735	\$ 8,400,000.00
_	Barton - Auburn 138kV (9752), Partial Rebuild		2022	5	Condition and Performance		Planned	A in MTEP18	13743	\$ 7,050,000.00
165	Range Line SW STA, Control House Replacement and Asset Renewal		2022	5	Condition and Performance		Planned	A in MTEP19	15928	\$ 7,100,000.00
166	Arcadian SS, Install redundant bus differenitials on 345-kV and 138-kV buses	2023	2023	5	Reliability	stability E2.D	Planned	A in MTEP20	16486	\$ 600,000.00
167	Summit - Cooney 138kV (6431), Rebuild		2023	5	Condition and Performance		Planned	A in MTEP19	15457	\$ 4,100,000.00
168	Burlington SS, Install 138kV Breakers		2021	5	Condition and Performance		Proposed	A in MTEP17	12058	\$ 1,400,000.00
169	Arcadian SS, Power Transformer and Control House Replacement and Asset Renewal		2023	5	Condition and Performance		Proposed	A in MTEP20	16486	\$ 45,000,000.00
170	Granville SS, Control House and Relay Replacement and Asset Renewal		2024	5	Condition and Performance		Provisional	B in MTEP19	16490	\$ 24,000,000.00
171	Granville SS, Install redundant bus differenitials on 345-kV and 138-kV buses	2023	2024	5	Reliability	stability E2.D	Provisional	B in MTEP19	16490	\$ 600,000.00
172	Lincoln - Bluemound (43rd St) 138kV (5053), Replace with new duct bank and XLPE cable		2024	5	Condition and Performance		Provisional	B in MTEP20	18048	\$ 30,000,000.00
	Substation Router Replacement Program 2020		2020	various	Communication		Planned	A in MTEP19	14910	

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Project Name	2019 TYA Model Need Year	Estimated In- Service Year	ZONE	Need Category	Planning Event	Planned / Proposed / Provisional	MISO MTEP Appendix (BOLD = Certified)	MTEP PRJID	Cost
4 Communication Reliability Upgrades Current Cycle		2021	various	Communication		Planned	A in MTEP18	13823 \$	34,461,836.0
Line Clearance Mitigation Project Current Cycle		2021	various	Line Clearance		Planned	A in MTEP18	13824 \$	18,718,669.0
Distribution Interconnection Current Cycle	2021	2021	various	T-D Interconnection		Planned	A in MTEP18	14904 \$	6,436,258.0
7 Physical Security Current Cycle		2021	various	Physical Security		Planned	A in MTEP18	13826 \$	67,198,396.0
8 Small Capital Project and Asset Renewal Current Cycle		2021	various	Condition and Performance		Planned	A in MTEP18	13821 \$	38,457,451.0
Communication Reliability Upgrades 2019		2022	various	Communication		Planned	A in MTEP18	13829 \$	1,422,500.0
Line Clearance Mitigation Project 2019		2022	various	Line Clearance		Planned	A in MTEP18	13825 \$	5,832,204.0
1 Distribution Interconnection 2019	2022	2022	various	T-D Interconnection		Planned	A in MTEP18	14905 \$	10,570,000.0
Physical Security 2019		2022	various	Physical Security		Planned	A in MTEP18	13828 \$	3,000,000.0
3 Small Capital Project and Asset Renewal 2019		2022	various	Condition and Performance		Planned	A in MTEP18	13822 \$	8,007,814.0
Communication Reliability Upgrades 2020		2023	various	Communication		Planned	A in MTEP19	14910 \$	11,344,615.
Line Clearance Mitigation Project 2020		2023	various	Line Clearance		Planned	A in MTEP19	14912 \$	12,062,247.
6 Load Interconnection 2020	2020	2023	various	T-D Interconnection		Planned	A in MTEP19	14906 \$	26,774,954.
Physical Security 2020		2023	various	Physical Security		Planned	A in MTEP19	14914 \$	21,603,965.0
8 Small Capital Project and Asset Renewal 2020		2023	various	Condition and Performance		Planned	A in MTEP19	14908 \$	35,906,079.0
9 Communication Reliability Upgrades 2021		2024	various	Communication		Proposed	B in MTEP18	14911 \$	15,390,000.
Uine Clearance Mitigation Project 2021		2024	various	Line Clearance		Proposed	B in MTEP18	14913 \$	14,800,000.
1 Load Interconnection 2021	2024	2024	various	T-D Interconnection		Proposed	B in MTEP18	14907 \$	20,934,210.
Physical Security 2021		2024	various	Physical Security		Proposed	B in MTEP18	14915 \$	14,299,341.0
3 Small Capital Project and Asset Renewal 2021		2024	various	Condition and Performance		Proposed	B in MTEP18	14909 \$	31,828,256.
4 Communication Reliability Upgrades 2022		2025	various	Communication		Proposed	B in MTEP18	14965 \$	8,851,667.
5 Line Clearance Mitigation Project 2022		2025	various	Line Clearance		Proposed	B in MTEP18	14966 \$	7,100,000.0
6 Load Interconnection 2022	2025	2025	various	T-D Interconnection		Proposed	B in MTEP18	14968 \$	38,475,000.
7 Physical Security 2022		2025	various	Physical Security		Proposed	B in MTEP18	14967 \$	9,165,536.
8 Small Capital Project and Asset Renewal 2022		2025	various	Condition and Performance		Proposed	B in MTEP18	14964 \$	30,489,835.
Substation Router Replacement Program 2021		2021	various	Communication		Provisional	B in MTEP18	14911 \$	10,000,000.
Substation Router Replacement Program 2022		2022	various	Communication		Provisional	B in MTEP18	14965 \$	10,000,000.
Legend No Shading = No change to project since previous Assessment									
Orange Shading = new project, was not in previous Assessment project list									
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Gray Shading = some change (e.g. In-service year or scope) since previous Assessment

MISO MTEP Appendix - Indicates MTEP Cycle, Cycles MTEP18 and prior are Certified in MISOs' Regional Plan for A projects (BOLDED), MTEP19 and future cycles are not yet certified at the time of publication (10/2019).