## ATC Preliminary MTEP16 Project List

Target Appendix	Geographic Location by TO Member System	Prjld	Owner_PrjID	Project Name	Project Description	Expected ISD	Min of Plan Status	Max kV	Min kV	Estimated Cost	System Need	Need Date
MTEP16	Appendix	A Lin	e Rebuild I	Projects								
A in MTEP16	ATC	7583	PR04985	Rebuild Lone Rock - Boscobel 69 kV	Rebuild Y-124 from Lone Rock to Boscobel with T2-4/0 ACSR. Inlcudes partial rebuild of Y-78 Lone Rock - Richland Center	6/30/2019	Conceptual	69	0	\$ 34,000,000.00	Reliability - Asset Renewal.	12/31/2018
A in MTEP16	ATC	8841	PR04988	Rebuild Finger Rd - Canal 69 KV	This project is a Asset Management driven project to rebuild the main section of J-10 from Finger Road to Beardsley to Canal. The tapped lines off of J-10 and East Krok to Beardsley are not included in this scope. No substation work is included in scope.	12/1/2019	Proposed	69	0	\$ 74,000,000.00	Reliability - Asset Renewal.	12/31/2019
A in MTEP16	ATC	9423	PR04968	Rebuild 115KV Line B-106 Plover - Whiting Avenue Substation		12/1/2019	Planned	115	0	\$ 6,200,000.00		12/31/2019
A in MTEP16	ATC	9934	PR07285	Upgrade Oak Creek - Hayes 138-kV line	Oak Creek - Hayes 138-kV line 811 upgrade and reconfiguration	6/30/2018	Proposed	138	0	\$ 21,000,000.00	Reliability.	
A in MTEP16	ATC	9977		Rebuild 69KV Line J-88 Goodman - Caldron Falls Substation	Rebuild 69KV Line J-88 Goodman - Caldron Falls Substation.	12/31/2019	Planned	69	0	\$ 35,000,000.00	,	
A in MTEP16	ATC	9986				12/31/2021	Planned	138	0	\$ 15,000,000.00		
A in MTEP16	ATC	10403		Uprate Kegonsa - Sun Prairie 69 kV line	Uprate Y-81 from Kegonsa to Sun Prairie	6/30/2017	7			\$ 5,000,000.00	Reliability.	
A in MTEP16	ATC	10404		Uprate 9 Mile - Detour 69 kV	Uprate 6950 from 9 Mile to Detour	2/28/2017	7			\$ 7,000,000.00		
A in MTEP16	ATC	10589	PR07388	Rerate Whitcomb - Tigerton Tap 69kV	Rerate Whitcomb - Tigerton Tap 69kV	6/9/2017	Planned	69	0		Reliability.	
A in MTEP16	ATC	3190	PR05190	Rebuild Sunset Point-Winneconne 69 kV	Rebuild line Y-103 from Sunset Point to Winneconne to SN/SE = 200/300 deg F	4/29/2016	Conceptual	69	0	\$3,868,404.00	Reliability.	12/31/2016
A in MTEP16	ATC	10683	PR07394	Uprate Lone Rock - Richland Center 69kV Line	Uprate Lone Rock - Richland Center to max operating temperature.	6/9/2017	Planned	69	0		Reliability.	
MTEP16	Appendix	A Sub	ostation Pr	ojects								
A in MTEP16		8640			Replace bus conductors at City Limits	12/31/2017	Proposed	138	0	\$ 500,000.00	Reliability.	12/31/2017
A in MTEP16	ATC	9925		Tap Stone Lake - Gardner Park 345-kV line	Loop Stone Lake - Gardner Park 345-kV line into new Pershing 345-kV Substation.	6/1/2018	Proposed	345	0	\$ 15,000,000.00	T-T Interconnection.	
A in MTEP16		10484	PR07373	Construct Eaton 138 kV T- D	Eaton Substation.	6/1/2019	Proposed	138			Reliability. T-D.	
A in MTEP16		10485	PR007372	Construct Bay Ridge 138 kV T- D	Construct a new ATC 138KV loop through at Bay Ridge Substation.		Proposed	138	24.9		Reliability. T-D.	
A in MTEP16		10543	PR07390		Construct T-D Escanaba North Substation (GOAB)	1/1/2017	Planned	69			Reliability. T-D.	
A in MTEP16		10563	PR07397	Construct T -D Oakview Substation		6/1/2018	Planned	138			Reliability. T-D.	
A in MTEP16		10603	PR07299	Construct T - D Springwater Substation	Construct T - D Springwater Substation.	12/31/2019		69			Reliability. T-D.	
A in MTEP16		10686	PR07392	Construct T - D Roosevelt Road Substation	transformer addition.	6/1/2018	Proposed	138	0		Reliability. T-D.	6/1/2018
A in MTEP16		10684	PR07396	Construct T - D Ellinwood Substation	T-D distribution transformer addition at Ellinwood Substation.			0	0		Reliability. T-D.	
A in MTEP16	ATC	10685	PR07393	Construct T - D Tomahawk Substation	Tomahawk Substation bus-tie breaker addition and T-D distribution transformer addition.	6/1/2017	Proposed	115	0		Reliability. T-D.	

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Target Appendix	Geographic Location by TO Member System	Prjld	Owner_PrjID	Project Name	Project Description	Expected ISD (Max)	Min of Plan Status	Max kV	Min kV	Estimated Cost	System Need	Need Date
MTEP16	Appendix	( A Tra	anformer Pi	rojects								
	ATC	8442	PR05503	Replace Arnott 138/69 kV Transformer	Asset maintenance, Replace the Arnott 138-69 kV Tr with 60 MVA unit	12/31/2016	Proposed	138	69	\$ 3,600,000.00	Reliability - Asset Renewal.	12/31/2016
A in MTEP16	ATC	9938	PR04754	Replace Sunset Point 138-69 kV Transformer	Replace 138/69KV power transformer with 100MVA continuous top rated transformer.	12/1/2016	Planned	138	0	\$ 6,000,000.00	Reliability - Asset Renewal.	
A in MTEP16	ATC	9944		Replace Erdman T31 Transformer	Replace Erdman T31 Transformer.	12/31/2017	Planned	138	0	\$ 6,000,000.00	Reliability - Asset Renewal.	
A in MTEP16	ATC	9954	PR05520	Replace Lost Dauphin T1 Transformer	Replace Lost Dauphin T1 Transformer.	12/31/2017	Planned	138	0	\$ 6,700,000.00	Reliability - Asset Renewal.	
A in MTEP16	ATC	9958		Replace East Krok Transformer	Replace East Krok Transformer.	12/31/2017	Planned	138	0		Reliability - Asset Renewal.	
A in MTEP16	ATC	9961		Replace Nelson Dewey T31/T32 Transformers	Replace Nelson Dewey T31/T32 Transformers.	12/31/2018	Planned	138	0	\$ 6,000,000.00	Reliability - Asset Renewal.	
MTEP16	Appendix	A Cir	cuit Breake	er Proiects			-				·	
A in MTEP16		7983	PR05247	Install 138/69 kV Canal Breakers	Install Canal 138-69 kV transformer high/low side	6/1/2017	Proposed	138	69	\$ 5,100,000.00		
					breaker additions					,	Reliability.	12/31/2017
A in MTEP16	ATC	9896		Lyndon Substation	Install 2 line breakers to sectionalize.	12/31/2015	Planned	138	0	\$ 3,100,000.00	Reliability.	
A in MTEP16		9911	PR05981	Maes Substation 138 kV	Maes substation: Install 2 line breakers to sectionalize.	10/1/2015	Planned	138		\$ 1,800,000.00	Reliability.	
A in MTEP16	ATC	9917		Bloomington Substation 69kV	Install SCADA controlled breakers to	12/31/2016	Planned	69	0	\$ 1,600,000.00		
	ATC	9918	PR06143	Red Maple Substation 138kV	Install a bus tie breaker.	6/1/2016	Planned	138		\$ 1,200,000.00		
	ATC	9921	PR06142	Birchwood Substation 138kV	Install a bus tie breaker.	12/31/2017		138		\$ 700,000.00		
A in MTEP16		9923	11100112	Mukwanago Substation 138kV	Install line breaker on line 67K61.	12/1/2017	Proposed	138		\$ 600,000.00		
			lay Projects	• • •		12/11/2017	TTOPOSCU	100		¢ 000,000.00	i tondonitji	
	ATC	7985	PR04578	Install 138 kV Canal Redundant Bus Differentials	This project consists of installing redundant bus differential protection on the two Canal 138-kV	6/1/2017	Proposed	138	0	\$ 230,000.00		
					buses. The project will install two new dual SEL- 487B bus differential relay panels.						Reliability.	12/31/2017
MTEP16	Appendix	(B	-			-	-	-	-			-
B in MTEP16		9928	PR07179	Re-rate Council Creek - Tomah Industrial Park (Y-121) 69kV Line	Re-rate 1.2 miles of 69 kV line between Council Creek and Tomah Industrial Park.	11/1/2019	Planned	69	0		Reliability.	
B in MTEP16	ATC	9930		Uprate Lost Dauphin - Red Maple 138kV	Lost Dauphin - Red Maple 138-kV line uprate.	12/1/2020	Proposed	138	0		Reliability.	
B in MTEP16	ATC	9935	PR05844	Install Wesmark Substation 2-8 Mvar 69- kV capacitor banks	Wesmark Substation: Install 2-8 Mvar 69-kV capacitor banks.	6/1/2020	Planned	69	0 0		Reliability.	
B in MTEP16	ATC	9968		Rebuild 138KV Line X-6 Portage - Staff Substation	Rebuild 138KV Line X-6 Portage - Staff Substation.	12/31/2019	Planned	138	8 0		Reliability Asset Renewal.	
B in MTEP16	ATC	9974		Rebuild 138KV Line X-98 Staff - North Randolph Substation	Rebuild 138KV Line X-98 Staff - North Randolph Substation.	12/31/2019	Planned	138	0		Reliability Asset Renewal.	
B in MTEP16	ATC	9991		Rebuild Racine 345kV Bus	Rebuild Racine 345kV Bus.	12/31/2018	Planned	345	0		Reliability Asset Renewal.	
B in MTEP16		8443		Replace Rocky Run 345/115 kV T1 Transformer	Replace the thee Rocky Run 345-115 kV transformers with two 500 MVA units.		Conceptual			\$ 22,000,000.00	Reliability Asset Renewal.	12/31/2017
B in MTEP16	ATC	10486	PR06461	Rebuild Chaffee Creek - Lincoln Pump Station 69 kV	Rebuild line Y-18 Chaffee Creek - Lincoln Pump Station.	12/31/2021	Proposed	69	0		Reliability Asset Renewal.	
B in MTEP16	ATC	10590	PR06462	Rebuild Academy - Columbus 69kV	Rebuild Academy - Columbus 69kV	12/31/2023	Conceptual	69	0		Reliability Asset Renewal.	
B in MTEP16		10643	PR07400	Construct T - D St. Martins Substation	St Martins Bus Expansion, Bus-tie Breaker Addition, Line Relocation, and T-D Transformer			0	0 0			
					Addition.						Reliability. T-D.	1/1/2018