

**Table PR-18  
Identified Needs and Transmission Lines Requiring New Right-of-Way**

Identified need	Potential solutions	Approx. line mileage		System need year	Projected In-service year	Planning zone
		Total	New ROW			
reduce service limitations, relieve overloads or low voltages under contingency, improve transfer capability & Weston stability	Construct Gardner Park-Stone Lake 345-kV line	140	73.4	1997	2006	1
T-D interconnection request	Construct new 138-kV line from North Beaver Dam to East Beaver Dam Substation	1.5	1.5	2006	2006	3
T-D interconnection request	Construct Venus-Metonga 115-kV line	12.5	11.5	2007	2007	1
relieve overloads or low voltages under contingency, accommodate new generation	Construct Sprecher-Femrite 138-kV line	2	2	2007	2007	3
T-D interconnection request, relieve overloads or low voltages under contingency	Construct new 69-kV line from Columbia to Rio to feed the proposed Wyocena Substation	8.16	8.16	2004	2007	3
T-D interconnection request	Construct new line from Southwest Delavan to Bristol at 138 kV and operate at 69 kV	3.5	3.5	2007	2007	3
T-D interconnection request	Construct double circuit 138-kV line from Forest Junction/Howards Grove/Charter Steel to Plymouth #4	1.75	1.75	2007	2007	4
reduce service limitations, relieve overloads or low voltages under contingency, improve transfer capability & Weston stability	Construct Stone Lake-Arrowhead 345-kV line	70	36.6	1997	2008	1
relieve overloads or low voltages under contingency, transfer capability	Construct Cranberry-Conover 115-kV line	14	14	2008	2008	1
T-D interconnection request	Construct Brandon-Fairwater 69-kV line	4	4	2008	2008	1
relieve overloads or low voltages under contingency	Construct a Jefferson-Lake Mills-Stony Brook 138-kV line	12	12	2006	2008	3
relieve overloads or low voltages under contingency	Construct a Rubicon-Hustisford 138-kV line	5	5	2008	2008	3
relieve overloads or low voltages under contingency	Construct a new 138-kV line from North Madison to Huiskamp (was Waunakee)	5	5	2008	2008	3
relieve overloads or low voltages under contingency	Construct new Oak Ridge-Verona 138-kV line and install a 138/69-kV transformer at Verona Substation	9	3	2009	2009	3

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relieve overloads or low voltages under contingency, reduce service limitations	String a new 138-kV line from Clintonville-Werner West primarily on Morgan-Werner West 345-kV line structures	16	2	2004	2009	4
relieve overloads or low voltages under contingency, reduce service limitations	Construct Morgan-Werner West 345-kV line	47	47	2004	2009	4
relieve overloads or low voltages under contingency	Construct 345-kV line from Rockdale to West Middleton	35	35	2011	2011	3
relieve overloads or low voltages under contingency	Loop the DeForest to Token Creek 69-kV line into the Yahara River Substation	1	1	2011	2011	3
T-D interconnection request	Construct a 69-kV line from SW Ripon Substation to the Ripon-Metomen 69-kV line	1.5	1.5	2012	2012	1
T-D interconnection request	Construct a North Lake Geneva-White River 138-kV line	1.4	1.4	2012	2012	3
relieve overloads or low voltages under contingency	Construct Shoto to Custer 138-kV line	9.94	9.94	2012	2012	4
relieve overloads or low voltages under contingency	Construct a Lake Delton-Birchwood 138-kV line	5	5	2013	2013	3
accommodate new generation	Construct an Oak Creek-Hale (Brookdale) 345-kV line installing 4 mi. new structures, converting 16.2 mi. of non-operative 230 kV and 5 mi. 138 kV	25.2	4	2013	2013	5
relieve overloads or low voltages under contingency, replace aging facilities	Rebuild/convert Holmes-Chandler 69 kV to 138-kV operation	54	14	2013	2013	2 & 4
relieve overloads or low voltages under contingency	Construct Fairwater-Mackford Prairie 69-kV line	5	5	2014	2014	1
relieve overloads or low voltages under contingency	Construct a Horicon-East Beaver Dam 138-kV line	9	9	2014	2014	3
relieve overloads or low voltages under contingency, T-D interconnection request	Construct new 138-kV line from South Lake Geneva to White River Substation	3	3	TBD	TBD	3
relieve overloads or low voltages under contingency, access initiative	Construct West Middleton-North Madison 345-kV line	20	20	2016	2016	3
relieve overloads or low voltages under contingency	Construct Evansville-Brooklyn 69-kV line	8	8	2016	2016	3

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relieve overloads or low voltages under contingency	Construct a second Dunn Road-Egg Harbor 69-kV line	12.66	12.66	2016	2016	4