

**Table RS-1  
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	Environmental screening provided?	Comments and/or Corresponding Exhibit Number
		Total	New ROW					
relieve overloads or low voltages under contingency	Construct a new 138-kV line from North Madison to Huiskamp	5	5	2008	2009	3	No	Environmental information included with filing at PSCW - CPCN approved.
relieve overloads or low voltages under contingency	Construct a Jefferson-Lake Mills-Stony Brook 138-kV line	12	12	2006	2009	3	No	Environmental information included with filing at PSCW - CPCN approved.
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	No	Environmental information included with filing at PSCW - CPCN approved.
relieve overloads or low voltages under contingency, reduce service limitations	Construct Morgan-Werner West 345-kV line	47	47	2004	2009	4	No	Environmental information included with filing at PSCW - CPCN approved.
T-D interconnection request	Construct 69-kV line from new Warrens Substation to the Council Creek-Tunnel City 69-kV line	4.5	4.5	2010	2010	1	Yes	Exhibit RS-1
T-D interconnection request	Construct Brandon-Fairwater 69-kV line	4	4	2010	2010	1	Yes	Exhibit RS-2
relieve overloads or low voltages under contingency	Construct new Oak Ridge-Verona 138-kV line and install a 138/69-kV transformer at Verona with a 100 MVA summer normal rating	9	3	2009	2010	3	No	Environmental information included with filing at PSCW - CPCN approved.
T-D interconnection request	Construct 115-kV line from new Arnett Road Substation to the Clear Lake Substation	7	7	2012	2012	1	Yes	Exhibit RS-3
relieve overloads or low voltages under contingency	Construct 345-kV line from Rockdale to West Middleton	35	35	2013	2013	3	No	Environmental information included with filing at PSCW.
T-D interconnection request	Construct a 69-kV line from SW Ripon to the Ripon-Metomen 69-kV line	1.5	1.5	2014	2014	1	Yes	Exhibit RS-4
relieve overloads or low voltages under contingency	Construct a Horicon-East Beaver Dam 138-kV line	9	9	2014	2014	3	Yes	Exhibit RS-5
relieve overloads or low voltages under contingency, T-D interconnection request	Construct new 138-kV line from North Lake Geneva to South Lake Geneva Substation	3	3	2014	2014	3	Yes	Exhibit RS-6
relieve overloads or low voltages under contingency	Construct a Lake Delton-Birchwood 138-kV line	5	5	2015	2015	3	Yes	Exhibit RS-7
relieve overloads or low voltages under contingency	Construct Shoto to Custer 138-kV line	9.94	9.94	2016	2016	4	Yes	Exhibit RS-8
relieve overloads or low voltages under contingency	Construct second Dunn Road-Egg Harbor 69-kV line	12.66	12.66	2016	2016	4	Yes	Exhibit RS-9
request,relieve overloads or low voltages	Construct Spring Valley-Twin Lakes-South Lake Geneva 138-kV line	26.5	15	2018	2018	3 & 5	Yes	Exhibit RS-10
relieve overloads or low voltages under contingency	Construct Fairwater-Mackford Prairie 69-kV line	5	5	2018	2018	1	Yes	Exhibit RS-11
relieve overloads or low voltages under contingency	Construct Evansville-Brooklyn 69-kV line	8	8	TBD	TBD	3	Yes	Exhibit RS-12
relieve overloads or low voltages under contingency	Construct Verona-North Monroe 138-kV line	20	20	TBD	TBD	3	Yes	Exhibit RS-13

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

New Warrens Substation to Council Creek-Tunnel City 69-kV line

	General Description	New line
	Length (miles)	approximately 10
#1	Screening Area (Sq. mi.- length X width)	approximately 69
#2	Corridor Sharing Opportunities	State and Federal highways, and existing transmission line rights-of-way offer opportunity for corridor sharing.
#3	Public Lands	Buckley, Gillette, and Veterans Park in Tomah, and Mill Creek State Fishery Area are found in the screening area.
#4	Sensitive Resources	Mill Creek State Fishery area and Mud Creek are located in the screening area.
#5	Cultural Resources	The Cultural Map of Wisconsin does lists several markers, the Harris G. Allen Telcommunications Museum, and the Little Red Schoolhouse in Gillette Park within the screening area. Several railroad related sites and local cemeteries are known in the screening area.
	Miscellaneous	Mesner landing strip is in the screening area.

Brandon-Fairwater 69-kV line

	General Description	New line
	Length (miles)	4
#1	Screening Area (Sq. mi.)	17.78
#2	Corridor Sharing Opportunities	Existing road and railroad corridors offer the best corridor sharing opportunities.
#3	Public Lands	Community Park, and WDNR Glacial Habitat Restoration Areas are located within the screening area.
#4	Sensitive Resources	Grand River, W. Branch Rock River, and unnamed streams are located within the study area.
#5	Cultural Resources	The WHS database identifies a number of architectural and historic sites, particularly within the Village of Brandon. Archaeological sites are identified in proximity to the waterways.
	Miscellaneous	There is a low probability of encountering endangered resources.

*Table RS-2  
Environmental Screening Information for Lines Requiring New Right-of-Way*

**Arnett Road-Clear Lake 115-kV line**

	General Description	New line
	Length (miles)	approximately 6
#1	Screening Area (Sq. mi.- length X width)	approximately 51
#2	Corridor Sharing Opportunities	State and county highways and local roads offer opportunities for corridor sharing.
#3	Public Lands	Northern Highland - American Legion State Forest, Brandy Lake Park, Bearskin Hiawatha Coop State Trail, local parks and recreational facilities are located in the project area.
#4	Sensitive Resources	Minocqua, Mud, Johnson, Snake, Bullhead, and several other lakes, numerous streams and channels and wetlands are located within the study area.
#5	Cultural Resources	The WHS database has identified architectural and historic sites within the study area. The Lac du Flambeau reservation is located at the west edge of the screening area.
	Miscellaneous	There is a moderate probability of encountering endangered resources.

**North Lake Geneva-South Lake Geneva 138-kV line**

	General Description	New line
	Length (miles)	approximately 3.4
#1	Screening Area (Sq. mi.)	approximately 21
#2	Corridor Sharing Opportunities	US Hwy 12 and State Hwy 120, along with other roads offer opportunities for corridor sharing, along with the existing transmission line Y-152
#3	Public Lands	Big Foot Beach State Park and other WDNR owned lands are located within the study area.
#4	Sensitive Resources	Lake Geneva, Lake Como, White River, and a number of large wetland complexes are located within the study area.
#5	Cultural Resources	The WHS database identifies archaeological and historic resources in the study area, particularly located near Lake Geneva.
	Miscellaneous	There is a moderate probability on encountering endangered resources.

*Table RS-2  
Environmental Screening Information for Lines Requiring New Right-of-Way*

**SW Ripon to the Ripon-Metomen 69-kV line**

	General Description	New line
	Length (miles)	1.5
#1	Screening Area (Sq. mi.)	4
#2	Corridor Sharing Opportunities	County and local roads provide opportunities for corridor sharing.
#3	Public Lands	Barlow Park and Kiwanis Park are within the study area.
#4	Sensitive Resources	Two unnamed streams & associated wetlands are located within the study area.
#5	Cultural Resources	The WHS database identifies numerous architectural and historic sites within the City of Ripon.
	Miscellaneous	There is a low probability of encountering endangered resources.

**Horicon-East Beaver Dam 138-kV line**

	General Description	New line
	Length (miles)	approximately 9
#1	Screening Area (Sq. mi.- length X width)	approximately 65
#2	Corridor Sharing Opportunities	Highway 33, county highways, and a railroad right-of-way offer possible sharing opportunities.
#3	Public Lands	Portions of Horicon Marsh and Shaw Marsh wildlife areas and the Wild Goose Trail are within the screening area.
#4	Sensitive Resources	Horicon and Shaw Marsh, Rock River, Pratt Creek, Schulz Creek, Crystal Creek, Park Creek and Beaver Dam River are located in the screening area.
#5	Cultural Resources	Cultural Map of Wisconsin does not identify any sites within the screening area.
	Miscellaneous	

Table RS-2

Environmental Screening Information for Lines Requiring New Right-of-Way

Spring Valley-Twin Lakes-South Lake Geneva 138-kV line

	General Description	New Line
	Length (miles)	approximately 18
#1	Screening Area (Sq. mi.- length X width)	approximately 113
#2	Corridor Sharing Opportunities	State and County roads located within the screening area offer the best possibility of corridor sharing.
#3	Public Lands	Numerous local parks, the New Munster state wildlife area and Camp Lake, Hooker Lake, and Silver Lake state fishery areas are located within the screening area.
#4	Sensitive Resources	Silver Lake, Camp Lake, Center Lake Lake Mary and Powers Lake and the Lower Fox (Illinois) River drainage basin are found within the screening area. The New Munster Bog Island, Silver Lake Bog, and Peat Lake State Natural Areas also are located in the screening area.
#5	Cultural Resources	The WHS database identifies archaeological and historic resources in the study area, particularly associated with lakes and rivers.
	Miscellaneous	

Lake Delton-Birchwood 138-kV line

	General Description	New line
	Length (miles)	approximately 5
#1	Screening Area (Sq. mi.- length X width)	approximately 41
#2	Corridor Sharing Opportunities	Interstate Highway 90/94, US Highway 12, State Highway 23, several county highways and local electrical distribution lines.
#3	Public Lands	Mirror Lake State Park, Dell Creek wildlife area, Hulburt Creek Woods State Natural Area and Hulburt Creek fishery area.
#4	Sensitive Resources	State Natural Areas and State Parks, Dell Creek, Harrison Creek, Lake Delton, Mirror Lake, Lake Blass, International Crane Foundation are located within the screening area.
#5	Cultural Resources	Cultural Map of Wisconsin identifies Dawn Manor, Seth Peterson cottage, International Crane Foundation, and the H.H. Bennett Studio within the screening area.
	Miscellaneous	Ho Chunk tribal lands and the Baraboo Dells Airport are located in the screening area.

*Table RS-2  
Environmental Screening Information for Lines Requiring New Right-of-Way*

**Shoto-Custer 138-kV line**

	General Description	New line
	Length (miles)	6.9
#1	Screening Area (Sq. mi.)	54.3
#2	Corridor Sharing Opportunities	Existing transmission lines, state, county and local roads provide opportunities for corridor sharing.
#3	Public Lands	Several local parks and the Manitowoc County Airport are located in the project area.
#4	Sensitive Resources	The Manitowoc River, Wet Twin River, several unnamed tributaries and associated wetlands are located in the project area.
#5	Cultural Resources	The WHS database identifies numerous arcahaeological, architectural and historic sites within the project area.
	Miscellaneous	There is a low to moderate probability of encountering endangered resources.

**Dunn Road-Egg Harbor 69-kV line**

	General Description	Construct a second line
	Length (miles)	12.66
#1	Screening Area (Sq. mi.)	82.7
#2	Corridor Sharing Opportunities	State Hwy 42 and existing transmission line X-24A provide the best opportunities for corridor sharing, along with county and local roads.
#3	Public Lands	None identified
#4	Sensitive Resources	The study area is adjacent to Lake Michigan.
#5	Cultural Resources	The WHS database identifies several architectural and historic sites within the study area, many are located near State Hwy 42.
	Miscellaneous	There is a high probability of encountering endangered resources.

*Table RS-2  
Environmental Screening Information for Lines Requiring New Right-of-Way*

**Fairwater-Mackford Prairie 69-kV line**

	General Description	New line
	Length (miles)	5
#1	Screening Area (Sq. mi.- length X width)	44.9
#2	Corridor Sharing Opportunities	State and County roads, railroad corridor, and existing electrical distribution lines routes located within the screening corridor offer the potential for corridor sharing.
#3	Public Lands	WDNR owns several parcels of "scattered wildlife" lands along the Grand River corridor.
#4	Sensitive Resources	The Grand river and associated wetlands are located in the project area.
#5	Cultural Resources	The WHS database identifies numerous archaeological, architectural and historic sites within the screening area. Cultural Map of Wisconsin does not identify any sites within the screening area.
	Miscellaneous	There is a moderate probability on encountering endangered resources.

**Evansville-Brooklyn 69-kV line**

	General Description	New line
	Length (miles)	8
#1	Screening Area (Sq. mi.)	55.08
#2	Corridor Sharing Opportunities	US Hwy 14, and numerous county and local roads, along with a railroad corridor, offer opportunities for corridor sharing.
#3	Public Lands	Evansville Wildlife Area
#4	Sensitive Resources	Allen Creek and Tributaries, and a tributary of Badfish Creek are located within the study area.
#5	Cultural Resources	The WHS database identifies architectural and historic sites, particularly concentrated within the Village of Brooklyn and the City of Evansville. Two archaeological sites are identified within the study area.
	Miscellaneous	There is a moderate probability of encountering endangered resources.

*Table RS-2  
Environmental Screening Information for Lines Requiring New Right-of-Way*

**Verona-North Monroe 138-kV line**

	General Description	New Line
	Length (miles)	22
#1	Screening Area (Sq. mi.)	Approximately 173
#2	Corridor Sharing Opportunities	Existing transmission corridors, state and local highways offer the best opportunity for corridor sharing.
#3	Public Lands	New Glarus Woods State Park, Brooklyn State wildlife Area, Sugar River State Trail, Badger Trail, and the Ice Age Trail are all located in the project screening area.
#4	Sensitive Resources	Olson Woods and Sugar River Wetlands state natural areas are located in the screening area. The Sugar River drainage and associated wetlands, along with several identified prairies are located in the project area.
#5	Cultural Resources	The Swiss Historical Village and the Chalet of the Golden Fleece in New Glarus are identified on the Cultural Map of Wisconsin. The WHS data indicates that numerous archaeological sites that are primarily associated with waterways and numerous historical sites are located within the screening area.
	Miscellaneous	There is a moderate probability of encountering endangered resources.

**NOTES:**

#1	Screening Area Width:	For lines 0-5 miles long, screening area width equals length of segment: for lines 5-15 miles long, screening area width equals 5 miles; for lines > 15 miles long, screening area width equals 30% of line length.
#2	Corridor Sharing Opportunities:	Identify dominant corridor types.
#3	Public Lands:	Identify properties by name.
#4	Sensitive Resources:	List major stream crossings, significant topographic features, designated natural areas, etc.
#5	Cultural Resources:	List resources shown on the statewide cultural resources map.

**Table RS-3  
Transmission Line Rebuilds/Reconductors, New Circuits and Voltage Conversions on  
Existing Right-of-Way**

Identified need	Lines to be rebuilt/reconducted on existing ROW	Approx. mileage of rebuilt, reconducted or uprated lines	System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments
reduce service limitations, relieve overloads or low voltages under contingency, improve transfer capability and Weston stability	Construct Gardner Park-Hwy 22 345-kV line	47	2009	2009	1	No	Environmental information included with filing at PSCW - CPCN approved.
relieve overloads or low voltages under contingency	Convert Rock River to Bristol to Elkhorn 138-kV operation; rebuild Bristol with a new 138 kV bus	27.74	2008	2009	3	No	Environmental information included with filing at PSCW - CPCN approved.
relieve overloads or low voltages under contingency	Rebuild Crivitz-High Falls 69-kV double circuit line	14.5	2009	2009	4	No	Environmental information included with filing at PSCW - CPCN approved.
relieve overloads or low voltages under contingency	Rebuild 2.37 miles of 69 kV from Sunset Point to Pearl Ave with 477 ACSR	2.37	2009	2009	4	Yes	
accommodate new generation	Reconductor Oak Creek-Allerton 138-kV line	5.41	2009	2009	5	No	Environmental information included with filing at PSCW - CA approved.
accommodate new generation	Loop Ramsey5-Harbor 138-kV line into Norwich and Kansas to form a new line from Ramsey-Norwich and Harbor-Kansas 138-kV lines	5.72	2009	2009	5	No	Environmental information included with filing at PSCW - CA approved.
accommodate new generation	Reconductor Oak Creek-Ramsey 138-kV line	8.5	2009	2009	5	No	Environmental information included with filing at PSCW - CA approved.
maintenance	Rebuild Arpin-Rocky Run 345-kV line	20	2010	2010	1	Yes	
relieve overloads or low voltages under contingency, transfer capability	Rebuild/convert Conover-Plains 69-kV line to 138 kV	73	2010	2010	2	No	Environmental information included with filing at PSCW - CPCN approved.
economics	Construct second Paddock-Rockdale 345-kV line and replace 345/138-kV transformer T22 at Rockdale Substation	35	2010	2010	3	No	Environmental information included with filing at PSCW - CPCN approved.
accommodate new generation	Uprate Oak Creek-Nicholson 138-kV line	6.8	2010	2010	5	No	Environmental information included with filing at PSCW - CA approved.
relieve overloads or low voltages under contingency, maintenance	Rebuild the Y-119 Verona to Oregon 69-kV line	11	2008	2011	3	Yes	
generation interconnection, relieve overloads or low voltages under contingency	Rebuild Y-33 Brodhead to South Monroe 69-kV line	18	2011	2011	3	Yes	

**Table RS-3  
Transmission Line Rebuilds/Reconductors, New Circuits and Voltage Conversions on  
Existing Right-of-Way**

Identified need	Lines to be rebuilt/reconducted on existing ROW	Approx. mileage of rebuilt, reconducted or uprated lines	System need year	Projected In-service year	Planning zone	Environmental screening provided?	Comments
T-D interconnection request	A second distribution transformer at Somers Substation requires a rebuild of the Racine-Somers-Albers 138-kV line; extend Albers 138-kV bus to permit connecting the Racine-Somers-Albers radial line to the Albers 138-kV bus	8	2011	2011	5	Yes	
economics, relieve overloads or low voltages under contingency	Construct Monroe County-Council Creek 161-kV line	20	2012	2012	1	Yes	
economics, relieve overloads or low voltages under contingency	Uprate Council Creek-Petenwell 138-kV line	32	2012	2012	1	Yes	
relieve overloads or low voltages under contingency	Increase ground clearance of M38-Atlantic 69-kV line from 120 to 167 degrees F	22	2009	2013	2	Yes	
relieve overloads or low voltages under contingency, r	Rebuild Y-32 Colley Road-Brick Church 69-kV line	19.7	2012	2012	3	Yes	
relieve overloads or low voltages under contingency	Construct Canal-Dunn Road 138-kV line	7.64	2012	2012	4	Yes	
relieve overloads or low voltages under contingency	Construct second Shorewood-Humboldt 138-kV underground cable	2.8	2012	2012	5	Yes	
relieve overloads or low voltages under contingency	Rebuild/reconductor X-12 Town Line Road-Bass Creek 138-kV line	9	2010	2013	3	Yes	
relieve overloads or low voltages under contingency, replace aging facilities	Rebuild Blaney Park-Munising 69 kV to 138 kV	50	2014	2014	2	Yes	
relieve overloads or low voltages under contingency	Rebuild part of the Y-8 Dane-Dam Heights 69-kV line	5	2015	2015	3	Yes	
relieve overloads or low voltages under contingency	Uprate the 6986 Royster to Sycamore 69-kV line to 115 MVA	3.35	2016	2016	3	Yes	
relieve overloads or low voltages under contingency, replace aging facilities	Rebuild/convert Bayport-Suamico-Sobieski-Pioneer 69-kV line to 138 kV	21.5	2016	2016	4	Yes	
relieve overloads or low voltages under contingency	Construct 69-kV double-circuit line between McCue and Lamar substations	4	2017	2017	3	No	
relieve overloads or low voltages under contingency	Construct West Middleton-Blount 138-kV line	5	2017	2017	3	Yes	
relieve overloads or low voltages under contingency	Reconfigure the North Randolph-Ripon 69-kV line to form a second Ripon-Metomen 69-kV line and retire the circuit between Metomen and the Mackford Prairie tap	5	2018	2018	1	Yes	
relieve overloads or low voltages under contingency	Convert Indian Lake-Hiawatha 69-kV line to double-circuit 138-kV operation, construct new Hiawatha 138-kV Substation	40	TBD	TBD	2	Yes	
relieve volta	Replace two overhead Blount-Ruskin 69-kV lines with one underground 69-kV line	2	TBD	TBD	3	No	
relieve overloads or low voltages under contingency	Uprate 138-kV line from Kewaunee to East Krok	8.4	TBD	TBD	4	Yes	
relieve overloads or low voltages under contingency	Reconductor Ramsey-Harbor 138-kV line	8.4	TBD	TBD	5	Yes	

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

Uprate M38-Atlantic 69-kV line from 120 to 167 degrees F		
	General Description	Line Uprate
	Length (miles)	22
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3	Public Lands	Copper Country State Forest
#4	Sensitive Resources	The existing line crosses the Pike, Otter, and Sturgeon Rivers along with associated wetlands and tributaries.
#5	Cultural Resources	Cultural resources may be found in the area in the proximity of the rivers located in the screening area.
	Miscellaneous	

  

Sunset Point-Pearl Avenue 69-kV line rebuild		
	General Description	Rebuild a portion of the line
	Length (miles)	2.37
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3	Public Lands	Riverside Cemetery
#4	Sensitive Resources	The existing line is adjacent to the Fox River, and passes through a few wetland areas.
#5	Cultural Resources	The Cultural Map of Wisconsin identifies several historic sites located in the vicinity of the existing corridor along the Fox River.
	Miscellaneous	The existing line passes through primarily urbanized areas.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

Rebuild Arpin-Rocky Run 345-kV line	
General Description	Rebuild line
Length (miles)	20
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No State owned lands were identified along the line route.
#4 Sensitive Resources	The existing line crosses Mill Creek, Bear Creek, and Rocky Run and extensive associated wetlands.
#5 Cultural Resources	The Cultural Map of Wisconsin does not identify any resources along this line route.
Miscellaneous	This route passes primarily thorough agricultural and undeveloped lands.

  

Verona-Oregon 69-kV line rebuild	
General Description	Rebuild
Length (miles)	11
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A-Existing transmission line corridor.
#3 Public Lands	Hook Lake and Grass Lake Wildlife Area and Natural Area, USFWS land
#4 Sensitive Resources	Potential crossing of a few unnamed streams, limited wetlands, low potential to encounter threatened and endangered species.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies no historic resources in the vicinity of the existing line
Miscellaneous	The Muck Farms Airport, Tesmer Field, and Ha-Rail Field are located in the screening area.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

<b>Brodhead-South Monroe 69-kV line rebuild</b>	
General Description	Rebuild
Length (miles)	18
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	None identified
#4 Sensitive Resources	The existing line crosses a number of streams.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies a number of historic sites in and around the City of Monroe.
Miscellaneous	There is a low potential for encountering endangered resources.

  

<b>Racine-Somers-Albers 138-kV line rebuild</b>	
General Description	Rebuild 138-kV line
Length (miles)	8
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No state-owned lands were identified along the route.
#4 Sensitive Resources	The Pike River, several unnamed tributaries, and associated wetlands are located along the line route.
#5 Cultural Resources	There are several known archaeological sites located along the line route. There is a moderate to high likelihood of encountering archaeological resources on this route.
Miscellaneous	There is a moderate to high likelihood of encountering rare species on this route.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

<b>Monroe County-Council Creek 161-kV line</b>	
General Description	Construct line
Length (miles)	20
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	Elroy-Sparta State Trail, Fort McCoy Barrens State Natural Area
#4 Sensitive Resources	The existing line crosses a number of waterways and associated wetland areas, including: Farmers Valley Creek, Silver Creek, Chub Creek, Council Creek, South Fork Lemon weir River, and some unnamed streams.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies historic sites within the cities of Tomah and Sparta, along with the Elroy-Sparta state trail.
Miscellaneous	There is a moderate probability of encountering endangered resources.

<b>Uprate Council Creek-Petenwell 138-kV line</b>	
General Description	Rebuild 138-kV line
Length (miles)	32
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No state-owned lands are crossed along the route.
#4 Sensitive Resources	The line crosses Kreyer Creek, Lemonweir River, Beaver Creek, S. Branch Yellow River, Yellow River, the West Petenwell Ditch (trout stream) and numerous unnamed tributaries along with associated wetlands. Much of the route passes through currently undeveloped woodlands and wetlands.
#5 Cultural Resources	Wisconsin Historical Society information identifies several known archaeological sites in the area with one near Necedah crossed by the line route.
Miscellaneous	Due to the proximity of this route to Necedah National Wildlife Refuge, Meadow Valley State Wildlife Area, Mill Bluff State Park, and the numerous streams, wetlands, and undeveloped lands located along this route, there is a moderate to high likelihood of encountering rare species on this route.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

Rebuild Y-32 Colley Road-Brick Church 69-kV line		
	General Description	Rebuild 69-kV line
	Length (miles)	20
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3	Public Lands	No state-owned lands are crossed along the route.
#4	Sensitive Resources	The line route crosses Spring Brook, Little Turtle Creek (Outstanding/Exceptional Water Resource), a few unnamed streams and wetlands associated with the waterways. Most of the line route is located along public roads or in agricultural lands.
#5	Cultural Resources	The Cultural Map of Wisconsin identifies the Clinton Village Hall and the Jefferson Prairie Norwegian Settlement near the existing corridor.
	Miscellaneous	Due to the primarily agricultural setting of this line, there is a moderate likelihood of encountering rare species on this route.

  

Canal-Dunn Road 69-kV line		
	General Description	Construct line
	Length (miles)	7.64
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3	Public Lands	None identified
#4	Sensitive Resources	The existing line crosses Sturgeon Bay and one unnamed stream.
#5	Cultural Resources	There is low probability of encountering endangered resources.
	Miscellaneous	

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

<b>Second Shorewood-Humboldt 138-kV underground cable</b>	
General Description	Add a second underground circuit along existing route
Length (miles)	0.75
#1 Screening Area (Sq. mi.- length X width)	Existing transmission line corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	Most of the existing line route is located in Estabrook Park.
#4 Sensitive Resources	Estabrook Park, The Milwaukee River, and an associated wetland along the west side of the river.
#5 Cultural Resources	The line crosses a known archaeological site identified in the WHS records west of the Milwaukee River.
Miscellaneous	
<b>Town Line Road-Bass Creek 138-kV line rebuild</b>	
General Description	Rebuild 138-kV line
Length (miles)	9
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	WDNR owns lands along the existing line.
#4 Sensitive Resources	The existing line crosses Bass Creek, and a few streams and associated wetlands. Much of the existing line is adjacent to Bass Creek. Ressler Railroad Prairie is located along the line route.
#5 Cultural Resources	The Cultural Map of Wisconsin identifies no cultural resources in the project area. The route does pass near several known archaeological sites.
Miscellaneous	There is a moderate to high likelihood of encountering rare species on this route.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

<b>Blaney Park-Munising 69-kV line conversion to 138 kV</b>	
General Description	Rebuild to 138 kV
Length (miles)	50
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	Hiawatha National Forest, Escanaba River State Forest, Lake Superior State Forest, and Seney National Wildlife Refuge.
#4 Sensitive Resources	The existing line passes through numerous wetlands.
#5 Cultural Resources	None identified
Miscellaneous	There is high potential for encountering rare species.

  

<b>Rebuild part of the Y-8 Dane-Dam Heights 69-kV line</b>	
General Description	Rebuild 69-kV line
Length (miles)	5
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	Lodi Marsh Wildlife area is located along the route and Lodi Marsh State Natural Area is located near the line.
#4 Sensitive Resources	The Wisconsin River, Spring Creek, and several unnamed tributaries, and associated wetlands are located along the line route.
#5 Cultural Resources	There are several known archaeological sites located along the line route. There is a moderate to high likelihood of encountering archaeological resources on this route.
Miscellaneous	There is a moderate to high likelihood of encountering rare species on this route.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

Uprate Royster to Sycamore 69-kV line to 115 MVA	
General Description	Uprate existing line
Length (miles)	3.4
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No state-owned lands were identified along the route.
#4 Sensitive Resources	Starkweather Creek and associated wetlands are located along the line route.
#5 Cultural Resources	There is one known archaeological sites located along the line route.
Miscellaneous	A portion of the route is located along a bike trail.

  

Bayport-Suamico-Sobieski-Pioneer rebuild/conversion	
General Description	Rebuild/Convert to 138 kV
Length (miles)	21.5
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	None identified
#4 Sensitive Resources	The existing line crosses numerous wetlands and streams, including the Fox, Oconto, Pensaukee, Suamico, and Little Suamico Rivers; Duck, Haller, Spring, Brookside, and Kirchner Creeks, and several unnamed streams.
#5 Cultural Resources	Due to the proximity of this route to Green Bay near the mouth of the Fox River, there is a moderate to high likelihood of encountering archaeological resources on this route. The Cultural Resources Map of Wisconsin identifies one historic site within the Town of Suamico.
Miscellaneous	Due to the proximity of this route to Green Bay and the Fox River, there is a moderate to high likelihood of encountering rare species on this route.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

Replace two overhead Blount-Ruskin 69-kV lines with one underground 69-kV line		
	General Description	Replace Overhead circuits with underground line
	Length (miles)	2.2
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	Existing transmission line corridor, public roads and railroad corridors.
#3	Public Lands	Burr Jones park and the Yahara River Parkway are located along the existing route.
#4	Sensitive Resources	The Yahara River is crossed along the existing route
#5	Cultural Resources	The WHS records identify one archaeological site and several historic properties along the line route.
	Miscellaneous	There is a low probability of encountering rare species. This line passes through urban lands.
West Middleton-Blount 138-kV line		
	General Description	Construct 138-kV line
	Length (miles)	5
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3	Public Lands	The existing line parallels a recreational trail and golf course.
#4	Sensitive Resources	This line is primarily through a highly urbanized area, much of the existing line is underground. There are a few small wetlands and unnamed streams near the existing overhead portions east of West Middleton.
#5	Cultural Resources	The Cultural Map of Wisconsin identifies a number of historic resources in the vicinity of the existing corridor.
	Miscellaneous	

Table RS-4

Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way

Reconfigure the North Randolph-Ripon 69-kV line to	
General Description	Add 1/2 mile of new line or replace single circuit with double circuit for 4-miles.
Length (miles)	5
#1 Screening Area (Sq. mi.- length X width)	Existing corridor or public road
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor or existing road.
#3 Public Lands	No state-owned lands or major parklands are crossed on this route.
#4 Sensitive Resources	No wetlands or permanent waterways are located along the route. Landuse is primarily agricultural.
#5 Cultural Resources	The WHS records do not identify any known archaeological sites along the line route.
Miscellaneous	There is a low potential of encountering endangered resources.

Convert Indian Lake-Hiawatha 69-kV line to double-	
General Description	Convert existing line to double circuit 138 kV
Length (miles)	40
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	Lake Superior State Forest lands are crossed.
#4 Sensitive Resources	The existing line crosses the Manistique River, several streams and numerous wetland.
#5 Cultural Resources	Due to the undeveloped nature of much of the lands along this line route, there is a moderate to high probability of identifying archaeological and historic sites in the vicinity of the corridor.
Miscellaneous	There is a high probability of encountering rare species. This line passes through primarily undeveloped forested areas.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

<b>Uprate Kewaunee-East Krok 138-kV Line</b>	
General Description	Uprate 138-kV Line
Length (miles)	8.2
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3 Public Lands	No public lands were identified along the line route.
#4 Sensitive Resources	Few intermittent streams and wetlands are located along the route.
#5 Cultural Resources	The WHS records do not identify any known archaeological sites along the line route.
Miscellaneous	There is a low probability of encountering rare species. This line passes through primarily agricultural lands.

  

<b>McCue - Lamar 69-kV double dircuit line</b>	
General Description	Add second circuit
Length (miles)	3.5
#1 Screening Area (Sq. mi.- length X width)	Existing corridor
#2 Corridor Sharing Opportunities	N/A – existing transmission line corridor along railroad.
#3 Public Lands	No state-owned lands were identified along the route.
#4 Sensitive Resources	There are no significant waterways or wetlands crossed along the route.
#5 Cultural Resources	There are no archaeolpgical sites located along the line route identified in the WHS database.
Miscellaneous	There is a low likelihood of encountering rare species on this route.

*Table RS-4  
Environmental Screening Information for New Lines, Rebuilds/Reconductors on Existing Right-of-Way*

<b>Ramsey-Harbor 138-kV line reconductor</b>		
	General Description	Reconductor underground portion of existing line 138-kV Line 8.4
	Length (miles)	8.4
#1	Screening Area (Sq. mi.- length X width)	Existing corridor
#2	Corridor Sharing Opportunities	N/A – existing transmission line corridor.
#3	Public Lands	The majority of the existing line is located below public roads.
#4	Sensitive Resources	The line route crosses under the Kinnikinnic River in the Milwaukee Harbor.
#5	Cultural Resources	Due to the location of the line primarily under public roads, there is a low probability of identifying intact archaeological sites in the vicinity of the corridor.
	Miscellaneous	There is a low probability of encountering rare species. This line passes through primarily developed urban areas.

**NOTES:**

- |    |                                 |  |
|----|---------------------------------|--|
| #1 | Screening Area Width:           | For projects on existing rights-of-way the screening area consists of the current location and lands immediately adjacent. |
| #2 | Corridor Sharing Opportunities: | Identify dominant corridor types.  |
| #3 | Public Lands:                   | Identify properties by name.   |
| #4 | Sensitive Resources:            | List major stream crossings, significant topographic features, designated natural areas, etc.                              |
| #5 | Cultural Resources:             | List resources shown on the statewide cultural resources map.  |