Table PF-2

*Projects included in the 2031 Project -Deficient 10-Year Assessment Model**

System Changes	Planning Zone
Bridge Street 69-kV Switching Station	1
Northwest Ripon 5.4 MVAr 69-kV Capacitor bank Retirement	1
Saratoga 138/69-kV T33 Transformer Retirement	1
Y-107 (Sigel-Vesper Tap-Auburn Tap) 69-kV Partial Line Rebuild	1
Y-108 (Vesper Tap-Pittsville) 69-kV Partial Line Rebuild	1
J1752 Porch Light Solar G-T Interconnection	1
XEL's Tremval 345-kV Switching Station (LRTP Project)	1
Jump River 345-kV Switching Station (LRTP Project)	1
Jump River 80 MVAr 345-kV Shunt Reactor (LRTP Project)	1
XEL's Eau Claire – Tremval 345-kV Line (LRTP Project)	1
XEL's Eau Claire – Jump River 345-kV Line (LRTP Project)	1
J1573 Portage Solar G-T Interconnection	1
J1751 Saratoga Solar G-T Interconnection	1
Birnamwood 69-kV Switching Station	1
U-11 (Hilltop – Pine) 115-kV Line	1
S1024 Wautoma Energy Storage G-T Interconnection	1
East Pittsville T-D Interconnection	1
Bogside 138-kV Switching Station	1
Bogside – East Pittsville 138-kV Line	1
J1508 Marathon Wind G-T Interconnection	1
Arpin 345-kV Switching Station Rebuild (LRTP Project)	1
Arpin 80 MVAr 345-kV Shunt Reactor (LRTP Project)	1
W-35 (Arpin – Welsh Prairie) 345-kV Line (LRTP Project)	1
W-56 (Welsh Prairie-Columbia) 345-kV Line (LRTP Project)	1
W-36 (Tremval – Arpin) 345-kV Line (LRTP Project)	1
County Rd 480 T-D Interconnection	2
Straits 138/69-kV TG1 Transformer Replacement	2
J1814 Copper Country Solar G-T Interconnection	2
Chandler (Cornell Tap – Watson Tap) 69-kV Line Rebuild	2
ESE_6906 (Pine River – Limestone) 69-kV Line Rebuild	2
J1750 Superior Solar G-T Interconnection	2
X-13 (Portage - Columbia) 138-kV Line Rebuild	3
X-20 (Portage - Columbia) 138-kV Line Rebuild	3
Mallard 138-kV Switching Station	3
Rock County LNG T-D Interconnection	3
Juneau Industrial 69-kV Substation Rebuild	3
Y-21 (Academy – Columbus) 69-kV Line Rebuild	3
Rock Branch 69-kV Substation Asset Renewal	3
J818 Badger State Solar G-T Interconnection	3
J1374 White Tail Wind G-T Interconnection	3
X-127 (Hill Valley – Eden) 138-kV Line Reconductor	3

Table PF-2 (Cont.)

*Projects included in the 2031 Project -Deficient 10-Year Assessment Model**

System Changes	Planning Zone
X-147 (Eden – Highland) 138-kV Line Rebuild	3
Birchwood 138-kV Substation Asset Renewal	3
Poynette 69-kV Substation Rebuild	3
Welsh Prairie 345-kV Switching Station	3
Kirkwood 138/69-kV Substation Asset Renewal	3
Kirkwood 138/69-kV T31 Transformer Replacement	3
J1779 Koshkonong Energy Center 2 Solar and Energy Storage G-T Interconnection	3
Academy T31 138/69-kV Transformer Replacement	3
East Beloit 69-kV to 138-kV Substation Rebuild	3
Stoughton T41 T-D Interconnection Retirement	3
Cuba City South 69-kV substation Reconfiguration	3
Y-159 (Brick Church – Walworth) 69-kV Line Rebuild	3
Y-59 (South Beaver Dam – North Beaver Dam) 69-kV Line Rebuild	3
J1732 Good Oak Solar G-T Interconnection	3
Grant County Phase2 T-D Interconnection	3
Y-51 (Katzenberg – Zenda Tap) 69-kV Line Rebuild	3
J1773 Uplands Wind2 G-T Interconnection	3
Emerson Rd 345-kV Switching Station	3
Move North Madison 80 MVAr 345-kV Shunt Reactor to Emerson Rd	3
J1502 Juneau Solar G-T Interconnection	3
Welsh Prairie 345-kV Switching Station	3
Welsh Prairie 80 MVAr 345-kV Shunt Reactor	3
J1629 Ursa Solar G-T Interconnection	3
Wilson St T-D Interconnection	3
Waupun Westside 69-kV Substation Retirement	3
Y-132 (Huiskamp – Day St Tap) 69-kV Line Rebuild	3
Portage 138 & 69-kV Relay and Breaker Asset Renewal	3
Hillside 69-kV Substation Asset Renewal	3
J1706 North Monroe Solar G-T Interconnection	3
New South Lake Geneva T-D Interconnection	3
Sunrise T2 T-D Interconnection	3
Y-106 (Eden – Rock Branch) 69-kV Rebuild	3
S1023 Cassville Energy Storage G-T Interconnection	3
S1033 Albany Energy Storage G-T Interconnection	3
S1034 Deaver Dam Energy Storage G-T Interconnection	3
S1035 Paddock Energy Storage G-T Interconnection	3
Y-21 Columbus Reconfiguration T-D Interconnection	3
J1746 Columbia County Solar G-T Interconnection	3
Blitz 345-kV Switching Station	3
J1377 Rock County Solar G-T Interconnection	3
Sun Prairie 69-kV Substation Uprate	3

Table PF-2 (Cont.)

*Projects included in the 2031 Project -Deficient 10-Year Assessment Model**

System Changes	Planning Zone
Y-137 (Deforest – Tocken Creek Tap) 69-kV Loop into Yahara River	3
Yahara T1 138/69-kV Transformer	3
Y-300 (Sun Prairie – Gaston Rd) 69-kV Loop into Reiner Rd	3
Reiner Rd T32 138/69-kV Transformer	3
J1824 Gristmill Solar G-T Interconnection	3
J1781 Uplands Wind G-T Interconnection	3
North Beaver Dam 138-kV Asset Renewal	3
Waupun Southside 69-kV Substation Retirement	3
Waupun ComTech 69-kV Substation Retirement	3
N-14 (2nd St Tap – 30th Ave) 69-kV Line Rebuild	4
East Krok T1 138/69-kV Transformer Replacement	4
GLNY41 (Glory Rd North – Oak St) 69-kV Line Partial Rebuild	4
Y-199 (Menominee - 30th Ave) 69-kV Line Rebuild	4
Valders 138/69-kV Substation	4
Valders T1 138/69-kV Transformer	4
J1513 Cloverleaf Solar G-T Interconnection	4
J1615 Oconto County Solar G-T Interconnection	4
D-104 (Lakefront – Revere Drive) 69-kV Line Uprate	4
Winnebago County T-D Interconnection	4
Edgewater Breakers Aset Renewal	4
Liberty St Substation Relay and Remote End Aset Renewal	4
J1793 Onion River Solar2 G-T Interconnection	4
NAPL121 (North Appleton – Fox River) 345-kV Line Uprate	4
Y-77 (High Falls – Mountain) 69-kV Line Rebuild	4
South Fond du Lac 345-kV T21 & T22 Transformer Replacement with a Single Unit	4
Nature Park 138/69-kV Substation	4
Nature Park T1 138/69-kV Transformer	4
Mullet River 138/69-kV Substation Retirement	4
W-15 (Forest Jct – Branch River) 345-kV Line Uprate	4
P-16 (Pulliam – Danz Ave) 69-kV Partial Line Rebuild	4
P-70 (Pulliam – Van Buren) 69-kV Partial Line Rebuild	4
X-227 (City Limits – Northside) 138-kV Line	4
Fitzgerald 345/138-kV T1 Transformer Replacement	4
J1745 Winnebago County Solar G-T Interconnection	4
C-103 (Northeast – Rever Rd) 69-kV Line Rebuild	4
K-11 (Shoto – Northeast) 69-kV Line Rebuild	4
Edgewater T-D Interconnection	4
R1053 Oak Creek CT-12,13,14 & 15 G-T Interconnection	5
Mill Rd 345/138-kV Switching Station	5
Mill Rd 345/138-kV T1 Transformer	5
W-43 (Mill Rd – Granville) 345-kV Line	5

Table PF-2 (Cont.)

*Projects included in the 2031 Project -Deficient 10-Year Assessment Model**

Butler 10 Ohm 138-kV Series Reactor	5
Sussex 10 Ohm 138-kV Series Reactor	5
5053 (Bluemound – Lincoln) 138 -kV Underground Cable Replacement	5
Nimbus 49 MVAr 138-kV Capacitor Bank	5
W-40 (Elm Rd – Racine) 345-kV Line (LRTP Project)	5
812 (Oak Creek – Racine) 138-kV Line Retirement (LRTP Project)	5
J1778 Paris Solar2 G-T Interconnection	5
Mount Pleasant 2x 49 MVAr 138-kV Capacitor Banks	5
5066 (West Junction Tap – Bluemound) 138-kV Line Retirement	5
West Junction 138-kV Substation	5
Jupiter 49 MVAr 138-kV Capacitor Bank	5
823 (Oak Creek – Allerton Tap) 138-kV Line Uprate	5
Cosmos 345/138-kV Switching Station	5
Cosmos 345/138-kV T1 Transformer	5
Cosmos 345/138-kV T2 Transformer	5
Cosmos 345/138-kV T3 Transformer	5
Cosmos 345/138-kV T4 Transformer	5
Cosmos 2x 49 MVAr 138-kV Capacitor Banks	5
X-200 (Cosmos – Mount Pleasant) 138-kV Line	5
Cosmos 10 Ohm 138-kV Series Reactor	5
Bluemound 345-kV Bus (LRTP Project)	5
Bluemound 230-kV Facilities Retirement (LRTP Project)	5
Bluemound 345/138-kV T1 Transformer (LRTP Project)	5
Bluemound 345/138-kV T2 Transformer (LRTP Project)	5
Oak Creek 230-kV Facilities Retirement (LRTP Project)	5
W-53 (Elm Rd - Muskego) 345-kV Line (formerly part of a 230-kV Line) (LRTP Project)	5
W-60 (Muskego - Arcadian) 345-kV Line (formerly part of a 230-kV Line) (LRTP Project)	5
W-52 (Bluemound – Arcadian) 345-kV Line (formerly part of a 230-kV Line) (LRTP Project)	5
W-51 (Elm Rd - Bluemound) 345-kV Line (formerly part of a 230-kV Line) (LRTP Project)	5
Ballpark 138-kV Substation	5
Park Hill 138-kV Substation Retirement	5
893k11 (Norwich – Harbor) 138-kV Underground Cable Replacement	5
Saturn 345-kV Switching Station	5
E0012 Red Oak Ridge G-T Interconnection	5

Projects included in addition to those listed in Table PF-1