

Table PR-29
Required Upgrades for Active Projects in the Generator Queue with a Signed Interconnection Agreement as of July 1, 2010

Zone	Queue #	County	Project Capacity	Upgrades
1	G588	Wood	55 MW	<ul style="list-style-type: none"> ▪ New 115 kV Interconnection Substation. ▪ Communication Upgrades at Hume and Arpin 115 kV Substations.
2	None			
3	G282	Lafayette	99 MW	<ul style="list-style-type: none"> ▪ New 138 kV Interconnection Substation. ▪ Engineering Upgrades at Hillman and Darlington 138 kV Substations.
3	G546	Walworth	100 MW	<ul style="list-style-type: none"> ▪ New 138 kV Interconnection Substation. ▪ Relay Communication Upgrades at Sugar Creek, Burlington, and North Lake Geneva 138 kV Substations. ▪ Reconductor Paris – Albers 138 kV Line. ▪ Thermal Upgrades at St. Martins 138 kV Substation.
3	G706	Columbia	99 MW	<ul style="list-style-type: none"> ▪ New 138 kV Interconnection Substation
3	H012	Columbia	150 MW	<ul style="list-style-type: none"> ▪ Upgrade G706 138 kV Interconnection Substation. ▪ Upgrade Portage – N. Randolph 138 kV Line. ▪ Thermal, Communication and Relay Upgrades at North Randolph 138 kV Substation. ▪ Stability and Communication Upgrades at Portage 138 kV Substation.
3	G749	Lafayette	50 MW	<ul style="list-style-type: none"> ▪ New 69 kV Interconnection Substation. ▪ Communication Upgrades at Hillman and Eden 69 kV Substations.
4	G376	Green Lake/Fond du Lac	160 MW	<ul style="list-style-type: none"> ▪ New 138 kV Interconnection Substation. ▪ Relay Setting Changes at Green Lake and N. Fond du Lac 138 kV Substations.
4	G427	Fond du Lac	98 MW	<ul style="list-style-type: none"> ▪ None required.
4	G590	Calumet	98 MW	<ul style="list-style-type: none"> ▪ Expansion of Tecumseh Road Substation for Interconnection Substation ▪ Thermal Upgrades at Melissa Substation
4	G611 & G927	Calumet	100.5 MW	<ul style="list-style-type: none"> ▪ New 138 kV Interconnection Substation ▪ Upgrade Forest Junction – Elkhart Lake 138 kV Line ▪ Thermal Upgrades at Melissa Substation
4	G773	Brown	150 MW	<ul style="list-style-type: none"> ▪ New 138 kV Interconnection Substation. ▪ Relay Setting Changes at Lost Dauphin and Forest Junction Substations. ▪ Thermal Upgrades at Melissa Substation.

4	G833 G834 J022 J023	Manitowoc	118 MW	<ul style="list-style-type: none"> ▪ Uprate Point Beach – Sheboygan Energy Center 345 kV Line. ▪ Uprate Cypress – Arcadian 345 kV Line. ▪ Stability Upgrades at North Appleton and Point Beach 345 kV Substations. ▪ Conversion of portions of existing Forest Junction – Holland 138 kV line to 345 kV to interconnect North and South Switching Stations. ▪ Creation of a New North 345 kV Switching Station and a New South 345 kV and 138 kV Switching Station. ▪ New 345 kV North Switching Station Interconnecting Point Beach – Forest Junction, Point Beach – Sheboygan Energy Center and the new South – North Switching Station 345 kV Lines. ▪ The new 345 kV South Switching Station Interconnecting Sheboygan Energy Center – Granville, Edgewater – Fond du Lac, Edgewater – Cedar Sauk and the new South – North Switching Station 345 kV Lines. ▪ New 138 kV Line from Howards Grove to Holland 138 kV substations. ▪ New 138 kV Line from Howards Grove to Erdman 138 kV substations. ▪ New South 138 kV Switching Station interconnecting 345/138 kV transformation, Howards Grove – Erdman and Mullet River – South Sheboygan Falls 138 kV Lines.
5	G051	Milwaukee	650 MW	<ul style="list-style-type: none"> ▪ Fault Duty Upgrade at Bluemound 138 kV Substation (Phase 2 Upgrade Only).