

G0585 and G0645 Crider Valley Wind and Solar

This projects seeks to build the Crider Valley Substation to interconnect 513MW of renewable energy (wind and solar).

A developer has requested interconnection on the McNary – John Day 500 kV line, 30 miles away from John Day substation. The project includes a 313 MW wind project (G0585) and 200 MW solar generation project (G0645) proposed for Klickitat County, WA.

The plan of service for G0585 includes the following:

Develop a 500 kV, 3 breaker ring bus at the POI. Includes development of a new substation, 3 power circuit breakers, 6 disconnect switches and associated control, relaying, and communications equipment. Transfer trip will be required on all 500 kV positions. Main Grid RAS will be required for generator tripping when thermal overloads are present. It is assumed that the developer would construct a 500 kV line from the collector station to the POI. The developer would then construct a 500/34.5 kV substation directly adjacent to the POI line to support their 34.5 kV line back to their collector station. Communications include WECC level 1/BPA Class B service. BPA will install, own, and operate all C&C equipment at BPA's new G0585 substation, including a JMUX as a small ring to the collector station, incremental additions on the BPA communications system to provide the required circuits, and a SCADA RTU for generation dropping. BPA will install standard Large Generation metering package and PMUs.

The plan of service for G0645 includes the following:

This is a project to interconnect the G0645 200 MW solar project in Klickitat County, Washington. This generation will be in the BPA Balancing Authority area and interconnecting on the McNary-John Day 500 kV Line at the G0585 Substation. The project will be required to participate in limit generation to schedule. The developer will build a common 34.5/500 kV substation and control house for G0585 and G0645. BPA will install relaying for the new interconnection, including line current differential, breaker failure and hot bus dead line protection. Customer will install hot line dead bus protection at the collector substation. Each generation breaker will have SCADA dispatch status indication. SCADA indication and control will be required for the transformer high side 500 kV breaker. Revenue metering will be installed at the interconnection project and a Data Phasor Measurement unit will be provided by BPA and installed by the customer. Redundant, WECC compliant RAS generation drop equipment and communication circuits will be installed at the interconnection project.