

Carlton Sub PCB Bus Tie Addition

This project seeks to add PCB and Bus Ties at the Carlton Substation.

The Carlton Substation plays a critical role in the NW Oregon Area. Carlton substation serves the following utility customers: Parts of Forest Grove, McMinnville W&L and Cascade Steel. It represents 56 MW of load. The transmission lines connect at Carlton substation are Cascade Steel 230kV, Carlton-Tillamook 230kV, and Carlton-Sherwood 230kV, Forest Grove-McMinnville #1 115kV, and Carlton-McMinnville #1 115kV Line.

The configuration of the lines into and out of this substation along with the equipment at the station are far from ideal and make it difficult to reliably serve customers in the area.

The proposed solution will address station configuration issues to 1) insure that we will not lose the entire line and all taps with a fault on this line section and 2) provide better opportunities to replace current manual processes with better relaying, thereby reducing outage time and providing greater operational availability. Planned maintenance will also be improved by not having to sectionalize or open end line for PCB maintenance. This project addresses all known capital deficiencies at Carlton Sub as well as an impairment on the Carlton Tap. Once this work is completed, there should be little need to address issues at Carlton for the next 20+ years absent any significant load increase on the station. Maintenance will also benefit by having newer equipment in the Control House.