



# MCNARY LOCK & DAM STATION SERVICE IMPROVEMENTS



**CLIENT**  
U.S. Army Corps  
of Engineers



**LOCATION**  
Umatilla, OR



**TIMELINE**  
May 2014 – Current



**DIVISION**  
Construction, Controls  
& Engineering



**VALUE**  
\$35,000,000

## OVERVIEW

In May of 2014, Olsson Industrial Electric was awarded a prime contract to modernize the station service electrical distribution system at the McNary Lock and Dam – a four year effort to replace nearly all of the existing 4160 V Station Service equipment. Construction began with two iso-phase bus taps feeding new 15 kV switchgear assemblies for redundant distribution to new 480 V substations. Twenty-eight 4160 V governor oil pumps will be rewound to 480 V for compatibility with the new station service distribution.

Ultimately, the modernization will convert the entire powerhouse to a redundant 480 V system. With the majority of new equipment installed in green field locations, the new system can be commissioned and energized in advance to minimize outages and disruptions to the plant. OS Engineering and Olsson Controls will provide significant support throughout the project, making this a complete team effort.

## SCOPE

- Remove nearly all existing 4160 V components
- Install seven 15 kV and five 480 V switchgear lineups
- Install 12 high resistance grounds and two 15 kV CLR's
- Install two 4.16/13.8 kV 5 MVA transformers, ten 13.8 kV/480 V transformers, one 13.8 V/12.47 kV 750 kA PSJ transformer, a 13.8 kV 480 V 1000 kVA transformer, two 13.8 kV/480 V 500 kVA transformers and two 480 V/208 Y-120 V 225 kVA transformers
- Install thirteen 480 VAC MCCs
- Install 17 main unit switchboards

## HIGHLIGHTS

- Design and implement temporary power solutions for continuity of powerhouse operations