

Grand Coulee Windings and Cores G1 – G18

This project will replace 14 of the 18 generator stator cores and windings. Four units (G4, G5, G7, G9) were previously replaced upon failure. The work will also include stator pole refurbishment and the purchase of a spare core and winding set. The previous failures were largely due to deterioration of the winding insulation. Testing and inspection has shown that windings of this Westinghouse design have had large numbers of strand-to-strand shorts. Most of the remaining windings are over 35, and even 40 years old and may well be developing the shorts that lead to hotspots, insulation degradation and failure.

This investment is part of a set of investments (including exciters, governors and transformers) that represents a systematic replacement and upgrade of the electrical equipment in the Left and Right Powerhouses. The work will be scheduled in a series of six-month outages where the units are taken out of service one-by-one to perform this capital work as well as scheduled maintenance work. This approach is far more efficient and less costly than taking outages for individual component replacement contracts.