

## **Chief Joseph Units 1-16 Generator Rewinds**

This project seeks to rewind Units 1-16 (FY21-27) prior to rewinds of Units 17-27 (FY27-31) and turbine runner replacements of Units 17-27 (FY50-54). These generator units were last rewound approximately 35 years ago and have reached the end of their life. Reliability will gradually worsen if the generators are not rewound, leading to more frequent failures and making the response to demands on the power supply system more difficult. The cooling units in the generator housings are also reaching the end of their life and if not replaced may result in de-rating the generating units.

The scope of the work for this project includes rotor, stator rewinding, generator coolers and possible core replacements. Core replacement will be determined based on inspection during the rewind of each unit. Comprehensive inspection of the existing conditions of the units has been accomplished while finalizing the statement of work and design.

The generators are used in combination with the turbines to generate power. As the generators age, there will be a greater likelihood of forced outages, major maintenance, and unscheduled repairs. The generators were most recently rehabbed in the years 1986-1987. The design life for windings is 30 years. The windings have exceeded their design life. Coatings on portions of the generator coils are beginning to degrade with age. The reliability of the generators will suffer if they are not rewound.