

Grand Coulee K22 Transformer Replacement

This project seeks to replace the G-22 Transformers at Grand Coulee Dam. This project will purchase three 276MVA transformers to be used as replacements for G-22. New transformers for G-21 and new spares could be purchased later, during the 4 additional years available to exercise the option to purchase additional sets of transformers allowed by this contract type.

The main unit step up transformers for unit G-22 at the Nathaniel Washington Power Plant (NWPP, formerly the Third Powerhouse) have been in service nearly forty years and have begun showing signs of serious degradation. Additionally, G-21 transformers have recently experienced a failure that led to an approximately 9-month outage starting in the fall of 2019. The current condition of all three banks of transformers for G-21 don't necessarily support replacement at this time, however; this project will use bid options in the contracting process to allow for a quick decision and execution of replacement for G-21 transformers should the need arise.

The annual risk of failure would be reduced to nearly zero by replacing G-22's transformers, and by using bidding options in our contract, we can proactively plan for the replacement of G-21 transformers or even purchase a set of spares should the need arise and economic analysis indicate it would be prudent to do so. The proposed replacement of the transformers will reduce monitoring and maintenance activities established to care for the aging transformers, improve safety in the area of the transformers by providing near-real time dissolved gas monitoring, and help protect unit availability from extended service outages due to transformer issues.