

## **Grand Coulee Left Powerhouse Transformer Replacement**

This project will replace transformer banks K1, K5, K7, K8 and purchase one spare bank of transformers. In total, 15 single phase transformers will be purchased. The transformers to be replaced range in age from 62 to 69 years, while their hydroAMP condition ratings range from fair to poor. The left powerhouse transformers that are not being replaced by this project were installed in the mid-eighties and are in good condition.

The transformers to be replaced are well beyond their expected service lives. Industry standards have identified 40 years as the standard service life for a power transformer. Industry mortality studies have shown that only 35% of transformers would be expected to survive to 62 years and by 69 years, the expected survival rate drops to 5%. The failure of the K10A transformer, A-phase, in December 2006 provides further evidence of the need for replacement. In addition, the units associated with these transformers will be critical during the 10-year Third Power Plant overhaul scheduled to begin in 2012.

Based on the current project schedule, construction is expected to be completed by October 31, 2014. Project cost estimates are business sensitive information and cannot be disclosed until the competitive solicitation, evaluation, negotiation and vendor contract award is completed.