

## **Foster Electrical Reliability Upgrades**

The project will replace electrical distribution equipment, the preferred AC system, 125 V DC system, diesel engine-generator and air compressors at the Foster dam.

The Foster facility was constructed in the 1960s and most of the electrical equipment is over 40 years old. The existing station service systems at Foster are difficult to maintain and in many cases are no longer safe to operate and maintain under modern arc flash considerations. The design is obsolete and FCRPS Station Service Reliability criteria is no longer met. In addition, the distribution configuration does not support efficient load shedding during emergency operation. Station service demand has increased and will continue to increase in the future. The backup generator is obsolete and undersized.

The replacements proposed in this business case will:

- Provide a cost effective power supply by reducing persistent alarms, component failures and attendant repair costs;
- Improve reliability by reducing forced outages and ensuring the Foster control room can remotely operate other Willamette Valley plants when needed;
- Ensure Foster and Green Peter can provide local transmission grid support and voltage support;
- Ensure the environmental requirements can be reliably met; and
- Maintain a safe work environment by mitigating arc flash risks.