

Equipment and Systems Overview

- Equipment Conveyor
- 2300V Bus
- Control Panels
- MV Transformers
- MV CB Switchgear
- LV AC Induction Motors
- LV transformers
- Panelboards
- LV Motor Control
- ATS
- SPD
- Fire Detection and Alarm

Offeror Role

Subcontractor

Owner Information

Idaho Power Company
1221 W. Idaho Street
Boise, ID 83702
208.388.2362

Contract Amount & Type
\$1,895,450—Firm Fixed Price

PW/DEN001/676431

Customer Information

JR Merit Mechanical
4505 NE 68th DR
Vancouver, WA 98661
Brent Denham, *Project Manager*
360.693.7474

Project Start and Finish Dates

1/2020—xx/xxxx

Project Location

730 Canyon Drive
Twin Falls, ID 83301

SHOSHONE FALLS HYDROELECTRIC FACILITY UPGRADE PROJECT PHASE 2

Project Summary

The primary purpose of the project was replacing two existing power generation units in the 1907 powerhouse with a single 3.2 MW unit and raising the site's overall generation capacity to 15 MW. Our work also included improvements to the dam intake, egress, equipment conveyor, power plant, switchgear building, spillway concrete, and access platform.

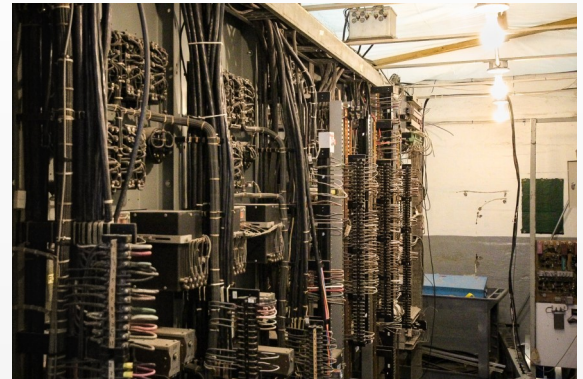
Burke Electric Scope

Facility 25 – Equipment Conveyor Improvements Scope to Include:

- Demo Controls & Conductors for Conveyor.
- De-energize and Disconnect Hoist House Electrical Feeder.
- Demo Conduits at Jib Crane.

Facility 30 – Power Plant Improvements

- Unit 1 Safe-off Disconnect.
- Unit 2 Safe-off Disconnect.
- Disassembly 2300v bus.
- Safe-off Disconnect of Control Panels.
- Disconnect Local Transformers.
- Demo General Electrical per Contract Documents.
- New Electrical per Contract Documents.
- Installation of IPC-FP Equipment.
- Provide & Install 3 ASCO Transfer Switches
- Provide & Install Local Service Transformers T003 & T004 with modifications to T003.
- Retrofit Panel LC-3A
- Provide & Install Panels LC-4A, LC-4B & Transformers LC-4B, U3-PRV
- Provide & Install DC-4 130 vdc.



Facility 35 – Switchgear Building

- Transformer T051 and Dead-End Structure Disconnected.
- Demo of General Site Electrical per Contract Documents.
- Provide and Install 4.16 kV Switchgear.
- Generator Step-Up Transformer Installation.
- Relocate Backup Generator Conduits & Conductors.
- General Area Electrical.

Problems Encountered and Solutions Executed

Access to Powerhouse was limited due to the location of the powerhouse down the side of a precarious cliff. Personnel access was via 100+ tread staircase, and equipment access was available after the installation of the equipment conveyor which also had limited capacity. Mobilization of the new switchgear using the equipment conveyor required very careful planning due to size and weight restrictions. Natural rock fell away from surrounding effacements, damaging equipment and facility structures. Existing powerhouse contained asbestos as well as lead paint on almost every surface which required the use of abatement, hazardous environment controls and additional employee training and resources.

Burke Electric Project Personnel

Aaron Carpenter, General Foreman
Pete Kelly, Project Manager
Dominic Burke, COO
Katie Morton, Safety Manager

