

PELTON ROUND BUTTE RELICENSING ENGINEERING SUPPORT

EES Consulting staff has served as the lead engineering consultant to Portland General Electric for the seven-year project to relicense the three developments of the 420 MW, Pelton Round Butte Project.



The Round Butte Development consists of a rock-filled dam 400 feet high, a gated spillway, and a powerhouse containing three 100 MW turbine-generators. The Pelton Development consists of a concrete arch dam 200 feet high, a gated spillway and a powerhouse containing three 32 MW turbine-generators. The Reregulating Development consists of a 30-foot-high rock-filled dam, a gated spillway, and a powerhouse containing a 20 MW turbine-generator. The project also includes extensive fish passage and rearing facilities.

SERVICES PROVIDED

- Lead engineering consultant, including project management, operations and hydraulic modeling, upgrade studies.
- Assistance with development of detailed relicensing documents including Exhibits A, B, F and G and other engineering support tasks as necessary.
- Presented results of operational simulations and the proposed project operating plan at FERC scoping meetings, agency meetings and in workgroup settings.
- Detailed computer model to simulate the operation of the multi-reservoir system. The model was used to simulate hourly, peak and off-peak operations and generation for existing and alternative conditions, and to account for the all of the environmental constraints of the project including seasonal reservoir operations, daily reservoir fluctuations, downstream ramping constraints, minimum flows, and base flows.
- Performed engineering review of project facilities, including life extension and an evaluation of the upgrade potential at the Round Butte and Pelton developments.
- Supported PGE's fish passage evaluation program by providing concept engineering development, cost estimates and agency criteria review for existing and potential new fish passage facilities at the project.