

Oregon dam goes "green"™

by Bend_Weekly_News_Sources

Located on the Warm Springs Reservation, Pelton Round Butte Hydro Project Now in Exclusive "Low-Impact" Club

The largest hydroelectric project totally inside Oregon's borders is now officially generating green power, with a designation achieved by only 26 hydro plants in the United States.

Pelton Round Butte Dam " photo courtesy warmsprings.com

On March 28, the Low Impact Hydropower Institute (LIHI) Board certified the Pelton Round Butte project as low impact, based on an array of planned environmental protection measures, including a new fish passage system that will be under construction this fall. With 465 million watts capacity, and one of its dams rising 440 feet, Pelton Round Butte is the second largest hydro project in the United States to receive the designation. Only one other Oregon facility has LIHI certification: the 4.3-million watt Falls Creek Dam, northeast of Eugene.

LIHI certifies hydro projects after they have passed a rigorous series of tests that demonstrate minimum impact on fish and wildlife. Pelton Round Butte is unusual in that most certified projects are small dams, sometimes built in streams that have few migrating fish to begin with.

The project is owned by Portland General Electric Company (PGE) (NYSE: POR) and the Confederated Tribes of Warm Springs (CTWS). The Federal Energy Regulatory Commission (FERC) issued the project's new license in 2005.

"Based on the feedback we received during our review of the Pelton Round Butte project, I believe that PGE's and the Tribe's approach will be a model for future FERC relicensings of complex large hydro projects," said Fred Ayer, LIHI executive director. "We congratulate this forward-looking partnership in meeting LIHI's tough but achievable standards."

“Portland General Electric strongly believes that protection of the environment and cost-effective business practices are compatible,” said Stephen Quennoz, PGE’s vice president for power supply. “PGE is a national leader in providing renewable power to our customers. We are proud that low-impact hydro is now part of the regular supply sent to our customers.”

“The Confederated Tribes of Warm Springs are finally beginning to see the benefit of efforts that have been undertaken during a long licensing process,” said Jim Manion, general manager, Warm Springs Power and Water Enterprises. “The commitment to restore the environment above the project has been a high priority for the Tribes. CTWS is the first tribe to take an ownership interest in a large hydroelectric complex. The Tribes have committed revenue that is not recoverable in a rate base to restore the fisheries that are vital to our culture,” he said.

Because of the impact on fish and other environmental factors, electricity from a U.S. hydro plant may not be considered eligible to be sold as “renewable” power until the related generating project has received LIHI certification. Wind, biomass and geothermal energy have been historically accepted as renewable.

Pelton Round Butte impounds the Deschutes River, a federal Wild and Scenic River and a tributary of the Columbia, about six miles west of Madras and about 90 miles southeast of downtown Portland. Its three dams have blocked fish passage, including that of wild salmon and steelhead, since 1968. However, PGE and the CTWS will restore passage with an innovative system expected to be operating by the end of 2009.

As designed, 96 percent of downstream migrating fish that arrive at the passage facility will safely transit into the lower Deschutes. Species to be reintroduced above the dams include summer steelhead (a federally listed threatened species) and spring Chinook salmon. Resident kokanee should naturally convert to sockeye salmon as they head downstream.

The new system will reopen 226 miles of streams above the dams to fish migration while allowing continued production of low-cost, renewable hydroelectric power. Pelton Round Butte generates enough electricity to supply a city about the size of Oregon’s capital, Salem, with a population of 143,000.

In the current system, juvenile salmon and steelhead can't find their way downstream because of turns in the current of the upper reservoir. The solution will be a 273-foot high underwater tower that will take in most of the surface water, drawing the fish to a collection system that will send them below the dams.

Pelton Round Butte improvement plans will not restrict recreation and should actually improve recreational fishing for salmon and steelhead over the long run through increased populations and better habitat. Additional details can be found at www.PortlandGeneral.com/fish click on "Deschutes River."

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