

HYDROELECTRIC EFFICIENCY IMPROVEMENT INCENTIVES

Thirteen projects in the Western region selected for incentives to enhance existing hydroelectric facilities

Supported by the Bipartisan Infrastructure Law (BIL), the U.S. Department of Energy's (DOE) Hydroelectric Incentives Program is authorized to provide a historic \$750 million to help maintain and enhance existing hydroelectric facilities to ensure generators continue to provide clean electricity, while improving dam safety and reducing environmental impacts. Part of this program, the Hydroelectric Efficiency Improvement Incentives, expects to make nearly \$71.5 million in incentive payments for owners or operators of existing hydroelectric facilities, including pumped storage hydropower, to support capital improvements that can improve their efficiency by at least 3%. In addition to increasing efficiency, projects receiving this incentive could also increase operational reliability, grid resiliency, electricity production, and dam safety, and provide environmental enhancements. Capital improvement projects under this incentive will sustain industry jobs, such as hydropower plant operators, electrical engineers, civil engineers, electricians, millwrights, mechanics, carpenters, concrete contractors, and hydropower equipment manufacturers.

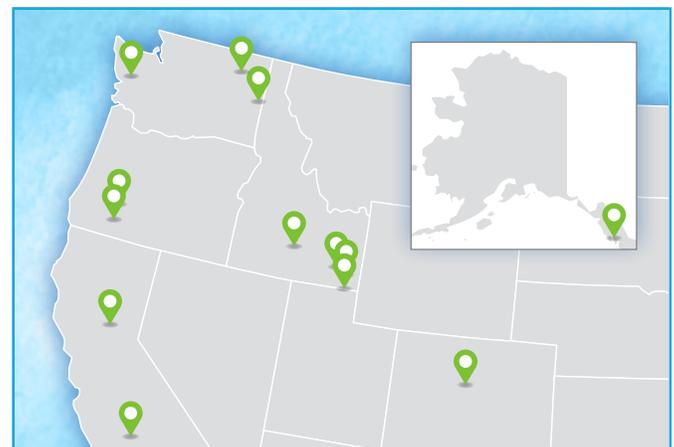
On February 2, 2024, DOE announced the selection of 46 hydroelectric projects across 19 states to receive Hydroelectric Energy Efficiency Improvement incentives. [View full list of selectees.](#)

Capital improvement projects in the Western region will include:

- Upgrading generating units to replace and refurbish turbines and generators to increase reliability and efficiency of power production
- Installing control systems upgrades, including automated controls

Projects in this region will provide economic benefits including:

- Committing to hiring local workers or contractors
- Providing apprenticeship, pre-apprenticeship programs, and youth education to showcase the opportunities available in the clean energy workforce
- At least 62% already have contracts in place, or have committed to a contractor preference, with Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, or Veteran Owned Businesses, among other DEIA commitments
- Over 92% will benefit a disadvantaged community efficiency retrofits



Western region by the numbers:

- **Projects:** 13 throughout Alaska, California, Colorado, Idaho, Oregon, and Washington
- **Total capacity:** 501.26 MW
- **Average efficiency increase:** 51.08%
- **Total incentive payments requested:** \$30.3 million
- **Approximate jobs supported:** 563

February 2024

2024 Western Region

Hydroelectric Efficiency Improvement Incentives selectees



- **Blind Slough Hydroelectric Refurbishment, Petersburg Borough dba Petersburg Municipal Power and Light, Petersburg, AK (\$2.9 million requested)** will conduct a refurbishment of the project, which is expected to extend the life of the project by another 30 to 40 years. The facility began operating in 1921, was reconstructed in 1954, and is located on Blind Slough in Petersburg, Alaska.
- **Cabin Creek Generating Station, Public Service Company of Colorado, Georgetown, CO (\$5 million requested)** will refurbish two turbines, Unit A and Unit B, and conduct overall infrastructure upgrades at the facility. These improvements will increase the overall capacity of the facility, extend service life of the facility by 40 years, and improve the overall round-trip storage efficiency of the facility. The Cabin Creek facility pumped storage hydroelectric plant was commissioned in 1967 and is located on Cabin Creek and South Clear Creek in Georgetown, Colorado.
- **Grace 3 Hydroelectric Efficiency Improvement, PacifiCorp Renewable Resources, Grace, ID (\$5 million requested)** will undertake several refurbishment measures to improve efficiency and extend the useful life of the turbines and generators. Improvements include, the replacement of turbine runners, wicket gates, and draft tube liners with new components, removal and plugging of the disused pressure relief valve in the scroll case, as well as replacement or refurbishment of generator core, coils, and field poles. The facility began operation in 1913 and is located on the Bear River in Grace, Idaho.
- **Meyers Falls Hydroelectric Project Hydro Technology Systems, Inc., Kettle Falls, WA (\$600,000 requested)** will conduct improvements including the replacement of the original bronze runners installed in 1915 and 1917 with new stainless steel runners. The original runners have been rebuilt numerous times since their installation. The rotors will also be rewound. Meyers Falls Hydroelectric Project began operation in 1915 and is located on the Colville River in Kettle Falls, Washington.
- **Kern Canyon Hydroelectric, Kern and Tule Hydro LLC, Bakersfield, CA (\$164,000 requested)** replace the existing Francis water wheel with a new higher efficiency turbine runner that operates especially well at low flows. The facility began operating in 1921 and is located on the Kern River in Bakersfield, California.
- **Magic Hydroelectric Project, Wood Hydro LLC, Shoshone, ID (\$288,000 requested)** will install a new low-head turbine runner and improved control systems. The improved controls will include automatic wicket gate adjustments based on new ultrasonic flow meter readings and automatic restart of the facilities. The facility began operating in 1982 and is located on the Little Wood River in Shoshone, Idaho.
- **Marsh Valley Hydroelectric Facility, Marsh Valley Development, Inc., McCammon, ID (\$58,000 requested)** will replace existing corroded runners with new, corrosive-resistant stainless steel runners. The facility started operating in 1992 and is located on the Portneuf River in McCammon, Idaho.

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- **Oneida Development Unit Overhaul, PacifiCorp Renewable Resources, Preston, ID (\$2.3 million requested)** will conduct a comprehensive refurbishment of the hydroelectric turbine and generator to enhance efficiency and prolong the unit's lifespan. The turbine runner, wicket gates, and generator rotor will be replaced, and the generator field poles will be refurbished. The facility began operating in 1915 and is located on the Bear River in Preston, Idaho.
- **Post Falls Modernization, Avista Corp. dba Avista Utilities, Post Falls, ID (\$5 million requested)** will remove the existing horizontal generators and turbines and replace them with new units of a more-efficient modern design and configuration. The project will also replace all unit controls, protection, monitoring, and balance of plant equipment, along with a new substation, improving distribution system interconnection. The facility began operation in 1906 and is located on the Spokane River in Post Falls, Idaho.
- **Prospect Project, PacifiCorp Renewable Resources, Prospect, OR (\$2.1 million requested)** will conduct a comprehensive refurbishment of the hydroelectric turbine generator through the installation of a new runner, runner seal rings, wicket gates, discharge ring, and draft tube liner. The facility began operating in 1928 and is located on the Rogue River, in Prospect, Oregon.
- **Rocky Brook Hydroelectric LP, Herrway Construction, Brinnon, WA (\$965,000 requested)** will replace four existing turbines. Additional improvements include an upgraded generator unit, revised intake structure and tailrace design, and automated control unit. The facility started operation in 1986 and is located on Rocky Brook Falls in Brinnon, Washington.
- **Toketee Development Unit Overhaul, PacifiCorp Renewable Resources, Idleyld Park, OR (\$5 million requested)** will conduct a comprehensive refurbishment of the hydroelectric turbine generators through the installation of a new runner, wicket gates, discharge ring, draft tube liner, and, specifically for Unit two, new generator coils. The facility began operating in 1949 and is located on the Umpqua River in Idleyld Park, Oregon.
- **Virginia Ranch Dam Hydroelectric Efficiency Upgrade Project, Browns Valley Irrigation District, Browns Valley, CA (\$1 million requested)** will implement the design and installation of a new turbine, generator, hydraulic power unit, and low voltage switchgear for both existing hydroelectric units at the power plant. The new equipment will be custom designed to maximize power generation from the heads and flows that occur specifically at the facility. The facility began operation in 1984 and is located on French Dry Creek in Browns Valley, California.