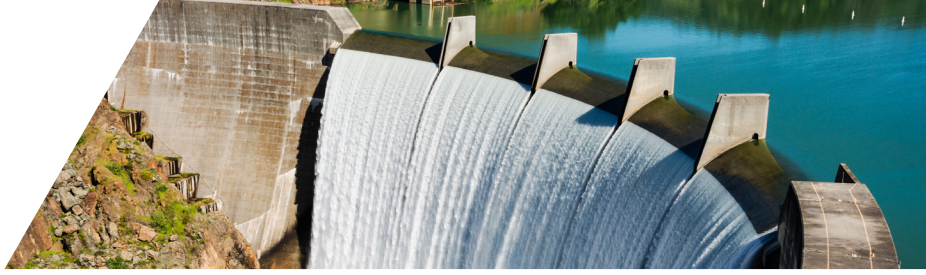
GRID DEPLOYMENT OFFICE



HYDROELECTRIC EFFICIENCY IMPROVEMENT INCENTIVES

Nine projects in the Southeast 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 manufactures.

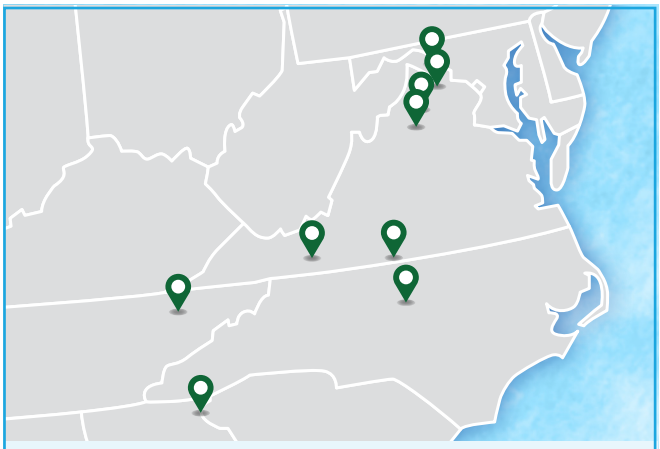
On February 2, 2024, DOE announced the selection of 46 hydroelectric projects across 19 states to receive Hydroelectric Energy Efficiency Improvement incentives. View full list of selectees.

Capital improvement projects in the Southeast region will include:

- Upgrading generating units to increase reliability and efficiency of power production
- Replacing spillway gates and trash racks for water conveyance upgrades
- Replacing control panels and instrumentation in the control room

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
- 100% of selectees 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
- Over 65% of projects will benefit a disadvantaged community



Southeast region by the numbers:

- **Projects:** 9 throughout Georgia, North Carolina, Tennessee, Virginia, West Virginia
- **Total capacity:** 235.15 MW
- **Average efficiency increase:** 15.48%
- **Total incentive payments requested:** $12.7 million
- **Approximate jobs supported:** 361

February 2024

2024 Southeast Region

Hydroelectric Efficiency Improvement Incentives selectees

- **Appalachian Power Company, Byllesby Hydro Capital Replacement of Generating Unit 4, Ivanhoe, VA ($2.1 million requested)** will replace Unit 4 with a new turbine and generator. Replacement of Unit 4 with new equipment will allow Appalachian to generate more electricity with the same volume of water and improve the reliability of the Byllesby plant. The facility began operating in 1912 and is located on the New River, Ivanhoe, Virginia.

- **Cherokee Dam Hydroelectric Unit 4 Replacement, Tennessee Valley Authority, Rutledge, TN ($5 million requested)** will replace Unit 4 of the facility, which began operation in 1952. Built to generate hydroelectric power during World War II, Cherokee Dam continues to play an important role as one of TVA's managed reservoirs that have prevented flood damage over the years. The facility is located on the Holston River in Rutledge Tennessee.

- **Georgia Power Company Tugalo Dam Units 1-4 Turbine Upgrade Efficiency Project, Georgia Power Company, Tallulah Falls, GA ($5 million requested)** will refurbish and upgrade all turbine components, replace the existing four generators, replace control panels and instrumentation in the control room, balance plant electrical and mechanical systems, upgrade the cooling system, and replace the spillway gates and trash racks. The facility started operation in 1923 and is located on the Tallulah River in Tallulah Falls, Georgia.

- **PE Hydro Luray Automation, Cube Hydro Partners, LLC, Luray, VA ($60,000 requested)** will conduct the installation of three new governors, three new exciters, and three Programmable Logic Controllers to implement automation technology that would enable remote control and optimization of the veil over the dam. The Luray Hydroelectric Facility came online in 1962 and is located on the Shenandoah River in Luray, Virginia.

- **PE Hydro Millville Automation, Cube Hydro Partners, LLC, Harpers Ferry, WV ($50,000 requested)** installed three new governors, three new exciters, and three Programmable Logic Controllers to implement automation technology that would enable remote control and optimization of the veil over the dam. The Millville Hydroelectric Facility came online in 1927 and is located on the Shenandoah River in Harpers Ferry, West Virginia.

- **PE Hydro Warren Automation, Cube Hydro Partners, LLC, Front Royal, VA ($60,000 requested)** will conduct the installation of three new governors, three new exciters, and three Programmable Logic Controllers to implement automation technology that would enable remote control and optimization of the veil over the dam. The facility came online in 1962 and is located on the Shenandoah River in Front Royal, Virginia.

- **Saxapahaw Hydropower Efficiency Improvements, Haw River Hydro Co., Graham, NC ($255,000 requested)** will conduct a Unit 1 wicket gates overhaul and a Unit 1 shaft replacement. The facility started operation in 1983 and is located on the Haw River in Graham, North Carolina.

- **Schoolfield Hydroelectric Facility, Eagle Creek Schoolfield, LLC, Danville, VA ($111,000 requested)** is currently undertaking a rebuild of the turbine at Unit 3 which will enhance operational efficiency, reduce downtime, and maximize power generation capabilities. By harnessing the synergistic benefits of the ongoing turbine replacement, the facility is poised to operate more efficiently and deliver a reliable power supply. The facility came online in 1990 and is located on the Dan River in Danville, Virginia.

- **Shenandoah Automation, PE Hydro Generation, LLC, Shenandoah, VA ($60,000 requested)** will conduct the installation of three new governors, three new exciters, and three Programmable Logic Controllers to implement automation technology that would enable remote control and optimization of the veil over the dam. The facility came online in 1966 and is located on the Shenandoah River in Shenandoah, Virginia.