



## Hydropower – Renewable, Reliable, Energy Independence for America

*“We’ll invest in biomedical research, information technology, and especially clean energy technology — an investment that will strengthen our security, protect our planet, and create countless new jobs for our people.”*  
– President Barack Obama

The U.S. Army Corps of Engineers (Corps) is the largest owner-operator of hydroelectric power plants in the United States and one of the largest in the world. The Corps currently operates 353 generating units at 75 multipurpose reservoirs, a total capability of 21,000 megawatts with approximately 60 percent in the Pacific Northwest. This capability generates about 24 percent of America’s hydroelectric power and represents approximately 3 percent of the country’s total electric-generating capacity. The hydropower projects support more than 1,000 direct jobs annually.<sup>1</sup>

### Funding

The President’s fiscal year 2013 budget of \$4.731 billion includes \$180 million for the hydropower program. This budget will support priority operation and maintenance work necessary to maintain safe project operation. The budget was developed using a risk management approach. Risk management entails prioritizing the highest priority new construction, major rehabilitation projects and priority maintenance activities. The Corps’ hydroelectric plants, built as an additional benefit to navigation and/or flood control projects, produce nearly 68 billion kilowatt-hours of electricity each year, enough energy to serve about 75 million households or 288 cities the size of Washington, DC. The Corps’ hydropower generation is a renewable source of energy, displacing traditional thermal generation and avoiding 40.5 million metric tons of carbon dioxide equivalent emissions annually. Hydropower is a clean, economical, renewable domestic energy source that can contribute to the Nation’s energy security. Hydropower can serve a primary role in meeting peak energy demands and energy reserve needs to protect the national power systems reliability and stability.

Hydropower facilities require considerable and increasing risk management activities, such as monitoring, examination, analyses, maintenance and repair in order to assure safe operations and to provide the benefits for which they were designed and constructed. The Corps continues to work closely with Power Marketing Administrations and their customers to identify both funding priorities and opportunities for direct non-Federal financing of hydropower improvements. Two additional long-term agreements, in the Southeastern Power Administration’s Cumberland River Basin and in the entire Southwestern Power Administration region, will substantially increase the direct non-Federal investments in Corps power plants in these regions in future years. The Corps’ hydropower facilities also provide a number of ancillary services that support stability of portions of the Nation’s electrical grid and frequently provide backup power for intermittent renewable energy resources such as wind and solar power. However, operating the Corps’ power plants in a continuously ready mode so that they can provide peaking power and unscheduled ancillary services, cause wear and tear on the units, leading to increased maintenance requirements and unscheduled outages.

### Objectives

- Increase the amount of hydropower produced at Corps dams.
- Improve the efficiency and effectiveness of existing Corps water resources projects.
- Recapitalize and upgrade projects that have exceeded their economic life.

### Key Projects

- Richard B. Russell Dam and Lake, GA & SC (\$1.0 M for mitigation)
- Columbia River Treaty Fishing Access Sites (\$0.35 M for mitigation)



## Key Messages

- The Corps is the largest owner-operator of hydroelectric power plants in the United States and one of the largest in the world.
- Hydropower is a renewable source of energy and avoids 40.5 million metric tons of carbon dioxide equivalent emissions
- The President's fiscal year 2013 budget request of \$180 million will allow Corps to continue funding the highest priority hydropower operations and maintenance projects.
- For more information about Corps hydroelectric power program, visit <http://www.usace.army.mil/>.
- The Corps operates 75 hydropower plants with a rated capacity of 20,475 Megawatts (MW), and a maximum capability of 22,900 MW.
- The Corps owns and operates 353 hydroelectric units that represents 24 percent of the nations hydropower capability and 3 percent of the total electric capability.
- Corps hydropower plants produce nearly 68 billion kilowatt-hours of electricity.
- 90 non-federal power plants are Federal Energy Regulatory Commission (FERC) licensed to operate at Corps dams representing about 2,300 MW of installed capacity.

<sup>1</sup> US Army Corps of Engineers IWR- Regional Economic System. Computer Model and Online Database. Alexandria, VA: Institute for Water Resources, U.S. Army Corps of Engineers.