



Funding Energy Efficiency and Conservation Projects with the Clean Water State Revolving Fund



The U.S. Environmental Protection Agency's (EPA) Clean Water State Revolving Fund (CWSRF) program is the largest public source of water quality financing in the country. The funding flexibility inherent to CWSRF programs allows states to address their unique water quality priorities.

While the CWSRF has a long history of funding water infrastructure projects, the CWSRF can also finance energy efficiency and conservation projects that reduce energy consumption. These include projects that reduce the amount of thermoelectric energy used at publicly owned treatment works (POTW).

HOW THE CWSRF WORKS

CWSRF programs in each state and Puerto Rico operate like banks. Federal and state contributions are used to capitalize the programs. These assets are used to make low interest loans for important water quality projects. Funds are then repaid to the CWSRFs and are recycled to fund other water quality and public health projects.

TYPES OF CWSRF ASSISTANCE

The CWSRFs offer many types of financial assistance. The programs primarily offer low-interest loans over terms as long as 30 years or the useful life of the project, whichever is less. The CWSRFs can also purchase local debt obligations, refinance previously issued debt, provide credit enhancements in the form of guarantees or insurance, and guarantee sub-state revolving loan fund debt. A small amount of additional subsidization may be available each year in the form of principle forgiveness, negative interest rate loans, or grants. Additional subsidization can be provided to projects that address affordability concerns, stormwater, water and energy conservation, or sustainable project planning, design, and construction.

ENCOURAGING ENERGY EFFICIENCY & CONSERVATION

Priority setting systems are an effective tool that states use to encourage energy efficiency and conservation. Each CWSRF program has a priority system that evaluates and ranks projects. Ranking criteria primarily focus on public health and water quality, but can also address other priorities including energy efficiency and conservation. States may encourage projects through targeted rating criteria, such as offering priority points, and funding incentives, including reduced interest rates and waiver of fees. For example, some states, like Virginia, Montana, and Rhode Island, not only give priority to projects with energy efficiency and conservation components, but also offer them financial incentives such as lower interest rates.

ELIGIBLE PROJECTS

The CWSRF can fund a wide range of energy efficiency and conservation activities, including:

- Installation of energy efficient equipment and components, such as lighting, HVAC, process equipment and electronic systems at a POTW
- Co-digestion, combined heat and power systems, and other renewable energy facilities at a POTW
- Capital costs of off-site renewable energy facilities that provide power to a POTW
- Energy efficiency upgrades and renewable energy generation projects that reduce atmospheric deposition

CWSRFs can also provide assistance to many types of planning activities. In general, planning is eligible if there is a reasonable prospect that it will result in an eligible capital project. Some examples relative to energy conservation include risk/vulnerability assessments, optimization studies, energy audits, and conservation plans.

GETTING A PROJECT FUNDED

Since the CWSRF program is managed by the states, project funding varies according to the priorities, policies, and laws within each state. Those interested in learning more about CWSRF funding opportunities should seek out the CWSRF program in their state and participate in the process that determines which projects are funded. The list of CWSRF state programs can be found on our website at: <https://www.epa.gov/cwsrf>

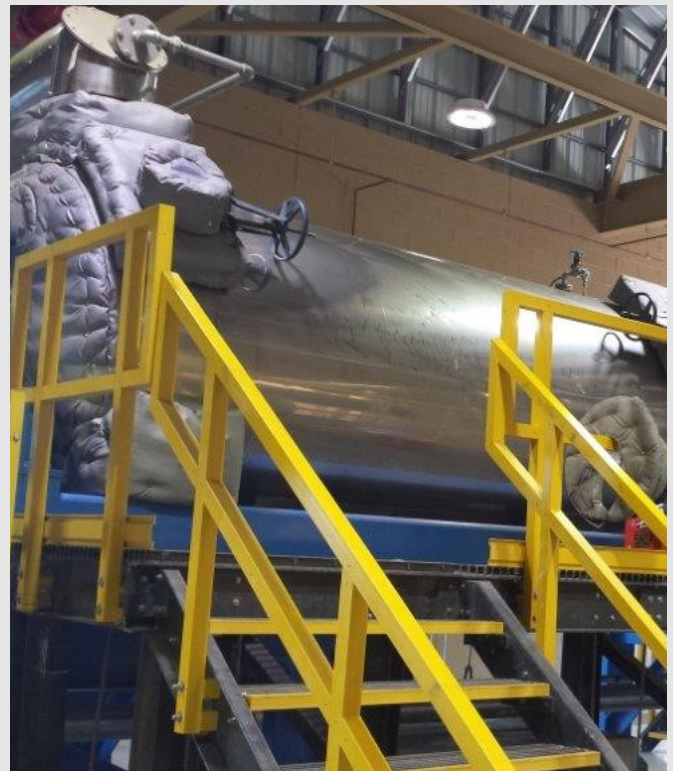
CLEAN WATER SUCCESS STORIES

Alabama

The Municipal Utilities Board of Albertville (MUB) received a \$5.6 million loan, along with a \$715,000 grant, from the Alabama CWSRF to enhance their wastewater treatment performance and biosolids disposal at the Albertville Eastside Wastewater Treatment Plant. New and energy efficient equipment was installed that has enabled MUB to produce renewable class A biosolids while utilizing biogas as a fuel to help operate their system. Overall, these improvements offer a sustainable solution by converting costly waste into a beneficial byproduct while utilizing a renewable, green energy source. This has allowed Albertville to improve its wastewater treatment capabilities and energy efficiency which will save money and conserve natural resources.

Maryland

The Washington Suburban Sanitary Commission (WSSC) received an \$8.2 million energy efficiency loan from the Maryland CWSRF as part of a cost-sharing agreement with DC Water to design and build a new Combined Heat and Power System (CHP) at DC Water's Blue Plains Advanced Wastewater Treatment Plant. The new CHP system has an innovative thermal hydrolysis sludge process that uses high pressure and high temperature to breakdown the cellular structure of the sludge, making it more conducive to digestion along with four new sludge digesters, gas scrubbing equipment, and three micro-turbines. This facility is now able to generate enough energy to supply about 1/3 of the plant's energy needs from the resultant digester biogas, saving the utility about \$10 million in annual electric costs. The reliable, cost-effective project was completed in 2015 and is a prime example of how localities can invest in infrastructure while conserving energy and cleaning the environment at the world's largest advanced treatment plant.



Completed biogas dryer in Albertville, Alabama

ENERGY EFFICIENT BONDS AND THE NYEFC

The partnership between the New York Environmental Facilities Corporation (NYEFC), lead state agency for the NY CWSRF, and the NY State Energy Research and Development Authority (NYSERDA) is a prime example of how energy efficiency can be improved through the use of CWSRF guarantees. NYSERDA sought to issue bonds to finance and refinance loans under the Green Jobs-Green New York program, a statewide initiative that supports energy efficiency improvements for residential, small business, and nonprofit buildings. Since New York's Section 319 nonpoint source program identified atmospheric deposition as a significant source of water quality impairment, energy efficiency projects to reduce atmospheric deposition are eligible for CWSRF funding. As a result, the NYSERDA sold \$24.3 million of revenue bonds guaranteed by the NYEFC to finance loans for energy efficiency advances as part of their Green Jobs-Green New York Program. They can also use the proceeds from these bonds to finance consumer loans that support the installation of residential energy efficiency improvements and Energy Star compliant products.

For more information about the CWSRF please contact us at:

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