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## DEP Announces Revised Plan to Build Hydroelectric Plant at Cannonsville Reservoir

### \$34 million plant will produce enough clean energy to power more than 3,500 homes annually

The New York City Department of Environmental Protection (DEP) today announced plans to build a \$34 million hydroelectric plant at the Cannonsville Reservoir. The 6-megawatt facility will generate enough renewable electricity to power more than 3,500 homes annually by harnessing the force of water that is continuously released downstream of the reservoir. DEP expects to complete the 4,400-square-foot hydroelectric facility by 2025.

The revised proposal follows a 2015 engineering assessment at the site, which found an artesian aquifer downstream of Cannonsville Dam. Initial plans for a 14-megawatt facility, including a 9,000-square-foot powerhouse, were deemed infeasible after the initial examination of conditions at the site. For more than two years, DEP has worked with experts to study the aquifer and develop a revised plan for generating clean energy at the site.

“DEP is proud to announce a project that continues to expand the amount of clean energy produced by our vast water supply system,” **DEP Commissioner Vincent Sapienza** said. “We hosted more than a dozen meetings and listened to more than a thousand people, and we engaged a team of expert engineers to develop plans for hydroelectric power generation at Cannonsville Reservoir. As we continue work on this renewable energy project, DEP pledges to keep our neighbors apprised of all ongoing activities.”

“The climate crisis is real and it’s urgent, and that’s why the City of New York is aggressively investing in clean energy,” said **Lisette Camilo, Commissioner of the New York City Department of Citywide Administrative Services (DCAS)**. “Mayor Bill de Blasio set an ambitious goal to reduce greenhouse gas emissions in New York City 80 percent by 2050, and projects like this will help us get there.”

DCAS is responsible for purchasing all the energy required to run New York City’s government, and for managing its energy use. Through managing the City’s energy portfolio, DCAS is at the heart of New York City’s efforts to reduce its carbon footprint 80 percent by 2050 and to eventually convert 100 percent of its energy use for government operations to renewable electricity. DCAS is providing \$9.8 million for the design and \$7 million toward the construction of the hydroelectric plant at Cannonsville Reservoir to help the City meet these ambitious goals.

DEP will host two public meetings on December 14 to share additional information and answer questions about the revised plans for a hydroelectric plant at Cannonsville Reservoir. Those meetings will be held at the following locations and times:

- 9 a.m. at the Deposit State Theater, 148 Front St., Deposit, NY 13754

**More Information**

NYC Department of Environmental Protection  
Public Affairs

59-17 Junction Boulevard  
19<sup>th</sup> Floor  
Flushing, NY 11373  
(718) 595-6600

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- 12:30 p.m. at the Upper Delaware Council office, 211 Bridge St., Narrowsburg, NY 12764

The proposed hydroelectric plant will include two 3-megawatt generators inside a 4,400-square-foot powerhouse adjacent to the West Delaware Release Chamber. The turbines will generate an estimated 32,000 megawatt hours of electricity each year—enough to power 3,547 homes, or the equivalent of taking 5,068 passenger vehicles off the road. The plant will avoid the emission of 23,666 metric tons of carbon dioxide per year. Electricity produced at the plant will be introduced into the grid through a new substation that will be constructed several hundred yards downstream of the dam. The project will create dozens of construction jobs, several full-time jobs to operate the finished plant, and it will generate hundreds of thousands of dollars in new property tax revenue for the Town of Deposit and the Deposit Central School District.

The hydroelectric facility will utilize water that is continuously released downstream of Cannonsville Reservoir. DEP releases water downstream of its three reservoirs on the headwaters of the Delaware River according to provisions of a 1954 U.S. Supreme Court Decree, and an interstate agreement called the Flexible Flow Management Program. The amount of water released from these reservoirs, including Cannonsville, is determined by the season, reservoir storage, hydrologic conditions in the Delaware River, and other factors. DEP will not release additional water from Cannonsville Reservoir to generate electricity; the existing court decisions and agreements will determine how much water goes through the hydroelectric facility each day.

This revised plan for hydroelectric power at Cannonsville Reservoir includes a smaller powerhouse than the original concept that was developed in 2009 and licensed by FERC in 2014. During a 2015 geotechnical assessment to support the foundation design for the larger powerhouse, DEP contractors found that an artesian aquifer—a naturally pressurized pocket of groundwater—was present downstream of Cannonsville Dam. DEP engineers and contractors subsequently performed work to reduce the condition by installing relief wells and used a special grouting technique to shut the boreholes that tapped into the aquifer. The artesian aquifer does not affect the structural integrity of the dam, but its location required DEP to design a smaller hydroelectric facility that will be situated outside the artesian area. The revised plan will draw water into turbines from an available pipe inside the existing West Delaware Release Chamber. [More information about the 2015 geotechnical work can be found here.](#)

DEP notified officials at FERC this week that it will no longer pursue the original project. The smaller, revised hydroelectric plant may qualify for a license exemption from FERC because it is less than 10 megawatts.

The proposed facility at Cannonsville Reservoir would be the fifth hydroelectric plant connected to parts of the New York City water supply system in the Catskills. Three of the existing hydroelectric facilities are located in the Town of Neversink in Sullivan County. The Neversink Tunnel Outlet has a capacity of 25 megawatts and generates energy from water as it moves from Neversink Reservoir to Rondout Reservoir. The East Delaware Tunnel Outlet has a capacity of 18 megawatts and generates electricity as water moves from Pepacton Reservoir to Rondout Reservoir. The West Delaware Tunnel Outlet has a capacity of 7.5-megawatt and generates electricity as water moves from Cannonsville Reservoir to Rondout Reservoir. The fourth hydroelectric facility, a 4.75-megawatt plant, is located at Ashokan Reservoir and generates power as water moves into the Catskill Aqueduct. In 2017, those four facilities generated nearly 199 million kilowatt hours of electricity that was sold on the open market by the New York Independent System Operator, which oversees the electric grid throughout the state.

Located on the western edge of Delaware County, Cannonsville Reservoir was formed by damming the West Branch of the Delaware River to store 96 billion gallons of water. Cannonsville Reservoir was the last of New York City's 19 reservoirs to be built. It was placed into service in 1964. Water drawn from

Cannonsville enters the West Delaware Tunnel and travels 44 miles to the upper end of the Rondout Reservoir. From there, it is carried in the 85-mile-long Delaware Aqueduct. Cannonsville Reservoir receives its water from a 455-square-mile drainage basin that includes parts of 17 towns in Delaware County.

DEP manages New York City's water supply, providing more than 1 billion gallons of high-quality water each day to more than 9.6 million New Yorkers. This includes more than 70 upstate communities and institutions in Ulster, Orange, Putnam and Westchester counties who consume an average of 110 million total gallons of drinking water daily from New York City's water supply system. This water comes from the Catskill, Delaware, and Croton watersheds that extend more than 125 miles from the City, and the system comprises 19 reservoirs, three controlled lakes, and numerous tunnels and aqueducts. DEP has nearly 6,000 employees, including almost 1,000 scientists, engineers, surveyors, watershed maintainers and other professionals in the watershed. In addition to its \$70 million payroll and \$168.9 million in annual taxes paid in upstate counties, DEP has committed more than \$2.7 billion in watershed protection programs—including partnership organizations such as the Catskill Watershed Corporation and the Watershed Agricultural Council—that support sustainable farming practices, environmentally sensitive economic development, and local economic opportunity. In addition, DEP has a robust capital program with \$19.1 billion in investments planned over the next decade that will create up to 3,000 construction-related jobs per year. For more information, visit [nyc.gov/dep](http://nyc.gov/dep), like us on [Facebook](#), or follow us on [Twitter](#).

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