

## DC Water

DC Water, formerly known as the DC Water and Sewer Authority (DC WASA), manages a series of diverse facilities including the Blue Plains Advanced Wastewater Treatment Plant and water pumping, sewer pumping, and storm water pumping facilities across the District. Two DC Water facilities were benchmarked for FY 2009: the Central Maintenance Facility and the Central Operations Facility. ENERGY STAR rating scores are not available for such multi-use buildings—which in this case include a combination of maintenance facilities, workshops, laboratories, a data center, and office space—but energy benchmarking using Portfolio Manager shows a source EUI of 830 kBtu/sq ft for the Central Operations Facility and a source EUI of 311 kBtu/sq ft for the Central Maintenance Facility. DC Water will undertake a detail analysis of the electrical services being provided from the Central Operations Facility to insure delineation of energy usage for process operations verses offices services and to improve energy efficiency, especially at the energy-intensive Central Operations Facility. Once a benchmarking protocol is developed for advanced wastewater treatment plants larger than 150 million gallons per day by EPA, it will be possible to benchmark Blue Plains Advanced Wastewater Treatment Plant, a 370 million gallon-per-day plant, against similar facilities across the country.

DC Water Facility	Weather Normalized, Source Energy Use Intensity (EUI) (kBtu/sq ft*)	Total Floor Space (sq ft)	Total GHG Emissions (MtCO <sub>2</sub> e)	Site Electric Use (kWh)	Site Natural Gas Use (therms)	Energy Cost US \$ (per sq ft)
Central Maintenance Facility and Lab	311	209,979	2,986	5,037,690	69,192	na
Central Operations Building	830	72,960	2,761	5,314,600	na	na

DC Water is completing a comprehensive energy audit of all its major facilities and processes. The results of this audit will help guide DC Water in project investment and operations to continue improvements in energy efficiency. DC Water has improved the efficiency of its Blue Plains Advanced Wastewater Treatment Plant nitrification mixing process and aeration injection system saving more than 50 million kilowatt hours annually. As a part of its biosolids management program, DC Water will be constructing a Combined Heat and Power Plant that will operate primarily on biogas. It is estimated that more than 71 million kilowatts hours of energy will be generated annually when fully operational. A planned replacement of HVAC equipment and enhanced controls for the Central Operations Facility will yield additional energy savings. As upgrades to DC Water sewer and water pumping stations and piping systems continue to be implemented, energy efficiency is being realized.

\* kBtu/sf represents 1,000 British thermal units per square foot, and is a standard conversion measure for various types of energy such as electricity and natural gas that may need to be compared or considered together.