

Washington Suburban Sanitary Commission

Potomac, Maryland



Annual Energy Savings
over \$560,000

Project Background

The Washington Suburban Sanitary Commission (WSSC) is the 8th largest water and wastewater utility in the nation, serving nearly 1.8 million residents and approximately 460,000 customer accounts in the Prince George's and Montgomery counties over an area of nearly 1,000 square miles. They operate and maintain eight water and wastewater plants, more than 5,500 miles of fresh water pipeline and nearly 5,400 miles of sewer pipeline.

In 2010, the WSSC selected Energy Systems Group (ESG), a specialized energy services and performance contracting company (ESCO), to complete comprehensive energy efficiency and infrastructure improvements for the Potomac Water Filtration (WFP) Plant in Potomac, Maryland.

ESG will implement over \$6.3 million of critical infrastructure upgrades that include the installation of the newest advances in technology to reduce the WSSC raw water pumping annual energy usage by 13%. ESG guarantees that energy savings over the defined 15-year term of the performance contracting project will cover the costs of energy and infrastructure improvements, averaging about \$562,300 in energy savings annually.

Strategies & Solutions

The project consists of rebuilding six 50MGD pumps, reconditioning six 2000hp motors and the installation of metering instrumentation for the 25 pumps in the Raw Water, Main Zone and High Zone pumping stations. Key installed technologies include large two-stage vertical and horizontal turbine pumps and large synchronous electric motors.

Environmental Benefits

This sustainable project will reduce the WSSC's carbon footprint by more than 3,500 tons of carbon dioxide and will provide annual environmental benefits equivalent to the removal of emissions from more than 600 cars or the planting of about 8,100 trees.



WSSC Headquarters in Laurel, Maryland