

2024 ENERGIZING EFFICIENCY CASE STUDY

Loudoun County Public Schools Energy Efficiency Improvements

OVERVIEW

In 2023, Loudoun County Public Schools (LCPS), a fast-growing district in Virginia, collaborated with Washington Gas and engineering consultant CMTA to improve the energy efficiency of its school facilities. This partnership focused on identifying and implementing upgrades that would improve energy systems, reduce costs, and increase overall reliability. CMTA conducted detailed technical audits across all schools in the district, leading to the completion of energy and water efficiency improvements at five schools, with additional projects in progress. The initiative has already shown significant success, with improvements described by LCPS as a "night and day" difference in terms of comfort and cost savings.

THE CHALLENGE

LCPS faced challenges with aging and inefficient energy systems in many schools, which led to frequent breakdowns, unpredictable downtime, and high maintenance costs. The energy audits conducted by CMTA identified areas of inefficiency, prompting a clear need for upgrades. However, given the scale of the district and budget constraints, completing these improvements ahead of the 2023 school year was a significant challenge. To address this, LCPS leveraged both internal resources and external partnerships to execute the upgrades on time.

LCPS implemented energy efficiency upgrades in five schools: Eagle Ridge Middle School, River Bend Middle School, Stone Bridge High School, Cool Spring Elementary School, and Algonkian Elementary School. Each school received upgrades tailored to its specific needs.

THE RESULTS

The energy and water efficiency improvements implemented by LCPS are bringing its school facilities significant energy and cost savings. The installation of 23 high-efficiency tankless water heaters and boilers across five schools is projected to yield over 19,000 therms in energy savings annually while earning LCPS a total of \$73,000 in financial incentives from Washington Gas's Business Energy Solutions program. In addition, the new equipment operates more quietly and reliably, which has helped improve learning and working conditions for students and staff.

The **Virginia Energy Efficiency Council**, a member-based 501c3, launched the Energizing Efficiency Campaign in 2023 to further the mission of advancing EE across the state by showcasing incredible work being done in our communities and inspiring others to act. Learn more at VAEEC.org/Energizing-Efficiency-Campaign.

