



## Energy Optimization Program

# Metro Nashville Public Schools

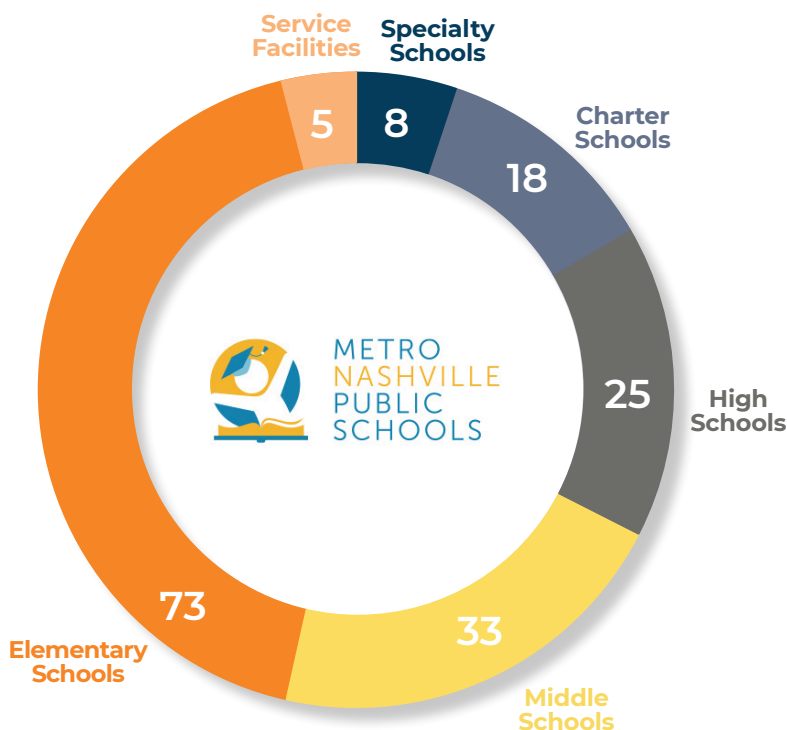
Metro Nashville Public Schools saves over **10 million dollars** by reducing energy 20% through a portfolio wide assessment and management of energy while focusing on maximizing student and employee comfort and safety.



**Metro Nashville Public Schools (MNPS) is a school district that serves 80,000+ students in the city of Nashville, Tennessee and Davidson County and has a staff of 10,500 professionals.**

SitelogIQ (SIQ) has been working with MNPS for over 5 years on various energy efficiency measures such as smart LED lighting and various networked controls for HVAC systems. In addition to energy savings, these projects have been focused on maximizing student and employee comfort and safety.

Armed with proof that the energy efficiency measures were yielding positive results for the district, the partnership grew in the fall of 2019. This included an energy observation program with SIQ's team experts focused on bringing together data-driven technology and energy management intelligence to the forefront of facility optimization.



# Energy Management Implementation

Site visits were conducted, which revealed aging infrastructure. With 157 buildings, many types of equipment and control systems exist with varying manufacturers, making it difficult to identify and track anticipated useful life. Further, it was determined

that the district operates on a fraction of the required budget for a district of its magnitude, resulting in reduced capital funding for energy upgrades and maintenance. To date, the SIQ team has taken the following actions to spur on program progression.

## Energy Program & Optimization



Implement an interactive dashboard through SIQ's technology-enabled platform, mySiteIQ.



Support MNPS with the hiring of three full-time, onsite Energy Managers.



Continue staff and student training on energy saving behavior.



Analyze expected ROI and impact of implementing recommended measures.



Strategically recommend to build on energy efficiency measures.



Actively monitor high utility usage and alert the district to possible leaks and malfunctions.



Assist schools in applying for and meeting the requirements of Energy Right School Uplift grant program.



Provide energy cost forecasting and analyze historical usage to prepare a utility budget for the district.

## Water Program



Actively monitor high water usage and alert the district to possible leaks and equipment malfunctions.



Collect water usage and cost data and report on water usage to district monthly.

## Conservation



Hands-on energy and sustainability instructional learning for STEM program participants



Earth Day presentations tailored for various grade levels; subjects include Interactive activities focused on lighting & LED, recycling, solar, & kinetic energy

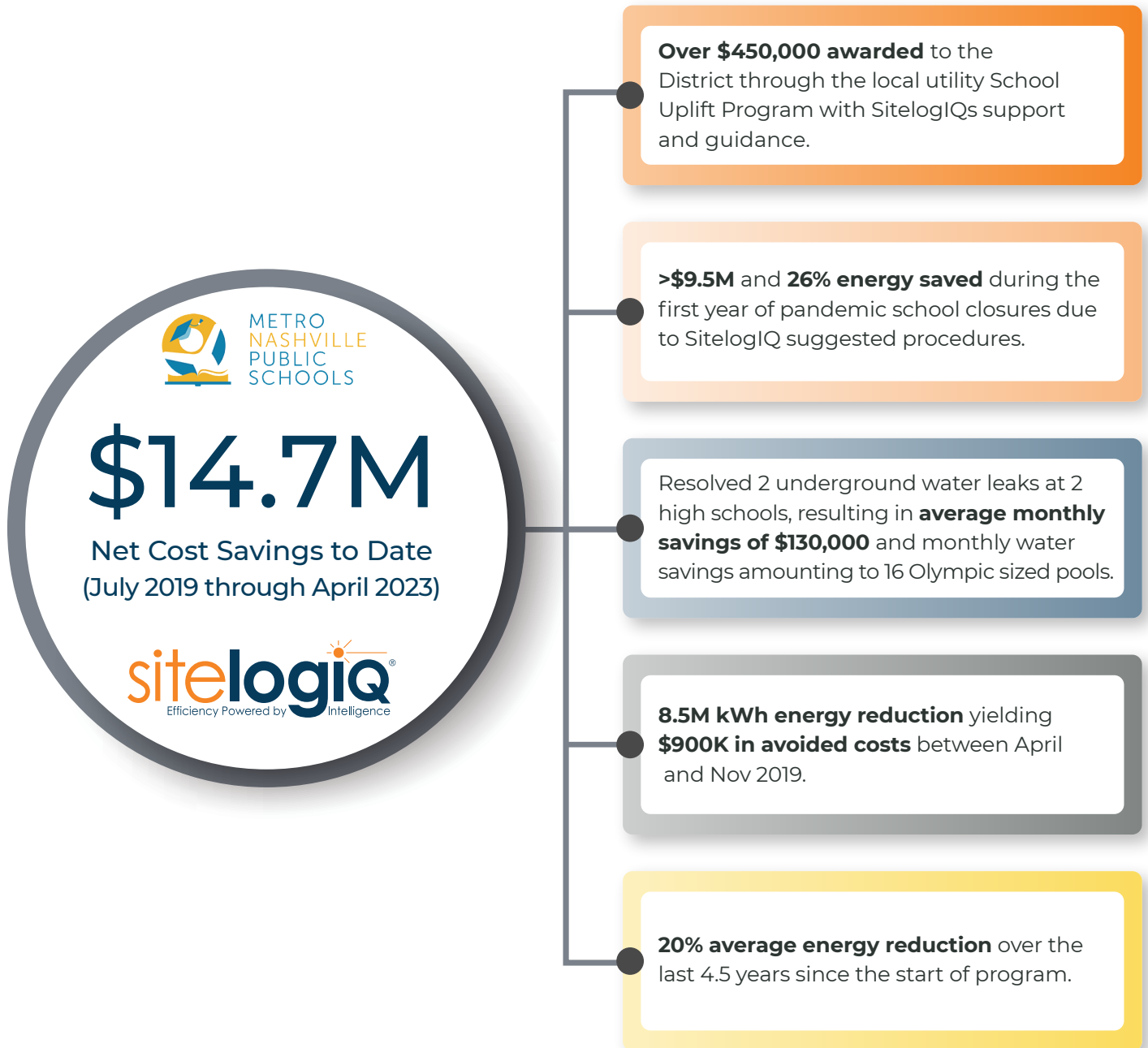


Energy education and staff engagement



Established the first Energy Champion Program for all schools to promote energy efficiency best practices throughout all facilities

# The Outcome





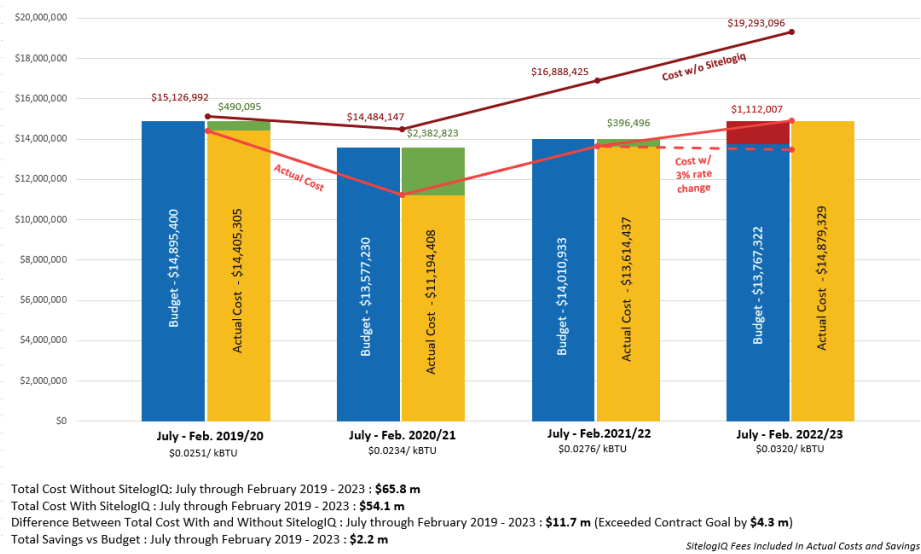
# Ongoing Partnerships

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SitelogIQ is a valuable, critical industry partner. With their guidance and support, we have successfully reduced our utility expenses by over \$10 million dollars and lowered our energy intensity utilization by more than 20%. They have exceeded their guaranteed savings earlier than expected and continue to improve our bottom line.

**David Proffitt**  
MNPS Executive Director of Facilities, Maintenance, and Construction

SIQ still is currently working to expand MNPS' Energy Champion Program to include at least 75% of the district's school buildings involved by the spring of 2024. In addition, the team is also becoming more involved in classroom lessons and school clubs through the Go Green Challenge as well as coordination with other programs such as STEAM to continue to educate students about energy efficiency, conservation, and sustainability.

## Total Year-to-Date Electricity and Natural Gas Costs



Earth Day celebration at local elementary school as reward for participating in energy grant program by Tennessee Valley Authority. Bottom left shows the team that won the spring 2023 “Go Green Challenge” at the Adventure Science Center.

