

City of Fairfax Regional Library Energy Retrofit

OVERVIEW

Fairfax County builds community, furthers literacy, and promotes freedom of access and expression through programming, community spaces, technology, and



collections of educational and

recreational resources at its Libraries. Given how important these spaces are in informing, engaging, and inspiring our community, the

Office of Environmental and Energy Coordination

(OEEC) made it a **top priority to make the Fairfax County Public Libraries as safe, comfortable, and energy efficient as possible.**



In 2020, the OEEC engaged energy service company CMTA to conduct **Technical Energy Audits** at multiple locations, including the City of Fairfax Regional Library.

These audits include an inspection of the building envelope and roof, as well as the air distribution, heating, cooling, and lighting equipment. As a result, multiple



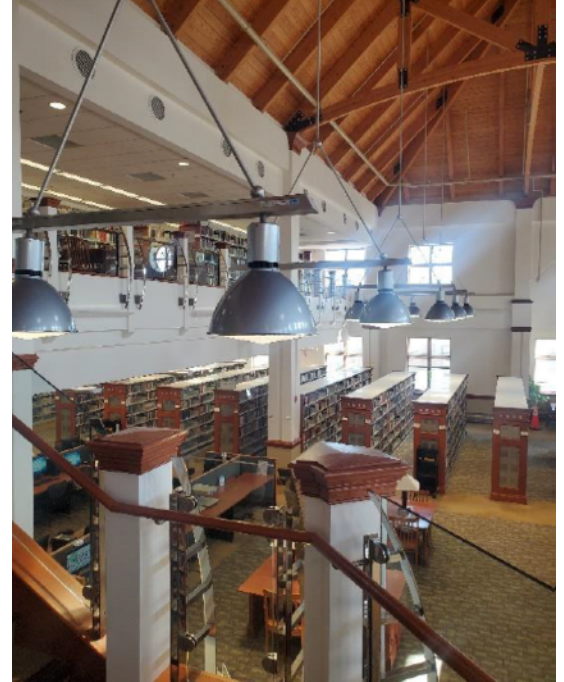
energy conservation measures (ECMs) were identified and prioritized by maximizing energy savings and cost effectiveness while minimizing disruption to the library's day-to-day operations.

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.



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This project focused on **improving lighting throughout the building** – a complete retrofit of existing fluorescent fixtures with LED upgrades. Special consideration was given to the architectural pendant lighting, which consisted of fluorescent lamps suspended from a high ceiling that failed regularly. The LED fixtures provide more complete illumination throughout the library and last much longer, keeping both staff and residents safe by removing the need for frequent ladder trips to replace burned out lamps. This, combined with time clock and occupancy sensor controls, allows staff to focus their time on other tasks and further increases savings.



THE RESULTS

Since the project was completed in June of 2022, the City of Fairfax Regional Library has already **reduced electricity consumption by over 125,000 kWh** or 16% compared to the previous year. **This exceeds the guaranteed energy savings target of 12%!**

Fairfax County and CMTA will continue to monitor the building to ensure savings continue throughout 2023 while setting their sights on even more energy efficiency opportunities.



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