

2024 ENERGIZING EFFICIENCY CASE STUDY

Thoroughgood Elementary School

THE NEED

Thoroughgood Elementary School in Virginia Beach saw the need to replace an overcrowded, outdated facility with a state-of-the-art, energy-efficient, and sustainable learning environment. The school was designed to accommodate 825 elementary students and support modern, future-oriented educational practices, while aligning with Virginia Beach City Public Schools' (VBCPS) broader sustainability goals.

The result is a building that performs 35.9% better than a typical elementary school building, and whose utilities are expected to operate at less than \$1 per square foot.

THE RESULTS

The new school is a LEED Silver-certified, 91,913-square-foot facility. It features extensive natural daylight, energy-efficient LED lighting, and a geothermal HVAC system. The incorporation of infrastructure for solar panels led to the installation of a solar PV system that supplies 27% of the school's annual electricity. The building operates with utilities costing less than \$1 per square foot, and VBCPS



participates in a 'Demand Response' program to reduce energy use during peak times. The project not only impacts the school's energy efficiency but also serves as a model for future sustainable school projects, benefiting the local community and contributing to environmental goals.

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.

