

Red Clay Consolidated School District *Phase 2*

New Castle County, Delaware



Project Objectives

- Improve building comfort and air quality
- Better space lighting
- Increase energy savings and decarbonization
- Engage students in energy education

Energy Conservation Measures Installed

- 6 solar arrays totaling 2,038,932 kWh of production with remote weather monitoring stations
- Refurbish 3 cooling towers
- UVGI lamps installed in air handlers
- Interior and exterior lighting retrofit upgrades to new high-efficient LED lighting

Red Clay Consolidated School District (RCCSD) is Delaware's largest school district, with 28 buildings serving over 15,000 students. In 2013, Seiberlich Trane Energy Services (STES) completed the first RCCSD Energy Savings Project, laying the groundwork for future sustainability efforts. In the summer of 2024, RCCSD partnered again with STES to execute an additional \$15.2 million in energy savings improvements. The second project received \$4.1 million in grants and federal tax credits with \$1.56 million specifically for solar installations funded by Energy Delaware's Solar for School Districts Grant.

Most upgrades needed to be completed over the summer to avoid disrupting the school year. This required meticulous planning and coordination of multiple subcontractors. To streamline solar array installations, STES team utilized strategic partners to warehouse hard to acquire, long lead-time components, ensuring timely and secure delivery. To comply with M&V requirements, our BAS specialist developed remote production and weather monitoring stations for the solar arrays at six schools.

The project will reduce RCCSD's carbon footprint by 24%. LED lighting upgrades have improved space lighting, enhancing the learning environment. UVGI installations boosted indoor air quality, and refurbished cooling towers increased energy efficiency. Green energy education initiatives will engage all 4th and 7th grade students by building windmill kits, designing blades, and measuring energy.

"We are thrilled with the outcomes of our energy project. The upgrades have helped our district invest in our buildings, reduce our carbon footprint, improve the learning environment, and deliver meaningful cost savings for our taxpayers."

Marcin Michalski, Director of Facilities and Maintenance

Project Results

The project improvements are expected to realize both energy and operations savings including:

- **5,147,495 kWh of electricity**

The environmental savings of the project:

- **3,147 metric tons CO₂e per year (24%)**

Grants, rebates, and tax credits received:

- **Over \$4.1 million**

ANNUAL ENVIRONMENTAL IMPACT OF PROJECT

