

The **Efficient and Healthy Schools Program** aims to motivate and empower K-12 schools to reduce energy costs and improve energy efficiency, health, and resilience. The Program connects schools with practical solutions, provides technical assistance and resources, to significantly improve school facilities. This Program is led by the U.S. Department of Energy Building Technologies Office with technical support from Lawrence Berkeley National Lab and New Buildings Institute.

CASE STUDY

Data Detective: IDEA Public Schools



Project Scope & Approach

Founded as an after-school program in 1998, IDEA Public Schools (IDEA) is a highly regarded, high-performing charter organization serving nearly 80,000 students across 73 campuses in 4 states. In early 2023, IDEA completed facility condition assessments and baselined energy use for all facilities in the district. Through these assessments, the facilities team at IDEA identified various approaches for improving energy efficiency, including replacing faulty sensors, adjusting critical setpoints, and schedule optimization, among many others. Following this work in September 2023, IDEA partnered with Ethos Engineering to benchmark and apply for certification for the three schools and their headquarters building using ENERGY STAR Portfolio Manager at no cost to IDEA.

Project Outcomes & Lessons Learned

Results of these benchmarking efforts proved IDEA's approach to energy management had significantly improved energy efficiency in the four buildings, resulting in Energy Star scores as follows: Edgemere – 100, Elsa – 99, Rio Grande City – 98, Headquarters – 82. Based on these scores, IDEA and Ethos also achieved Energy Star Certifications for all four buildings. Additionally, upon initial assessment (Jul 2023-Feb 2024), IDEA documented nearly \$115,000 in energy savings compared to the baseline for the three school buildings (not including their headquarters building).

The IDEA facilities team shares the schools' energy data with the students and staff, building awareness and highlighting success. They also reinvest every dollar they save, supporting the district's mission of "College for ALL Children." The results of this work have inspired IDEA to continue implementing similar facility improvements at facilities with higher ENERGY STAR scores (from initial benchmarking) with a goal to achieve Energy Star Certification at all school buildings.

PROJECT HIGHLIGHTS

As a result of their work, the district saved nearly \$115,000 (year-to-date) in the three school buildings that received Energy Star certifications!

- ENERGY STAR Building Certification for all four selected sites.
- In-depth training and operator certifications for staff.
- HVAC adjustments to critical setpoints for IAQ improvement.
- Optimized building occupancy schedules.
- Confirmation of energy-efficient HVAC equipment base designs.
- Portfolio-wide energy benchmarking.

Project Details

Location: El Paso, Rio Grande City, Elsa, and Weslaco, TX

Number of Students: 79,615

Schools in District: 143

Percent Free and Reduced Price Meal: 87%

Percent Title 1 schools: 35%

District Size: 6,386,703 ft² (all buildings)

Project Cost: Pro-bono services

Funding Mechanism: Pro-bono services

Project Dates: Sept 2023 – Feb 2024

Design/Performance Criteria Used: ENERGY STAR Score & Building Certification

Key Project Features:

- Major HVAC equipment replacements
- LED lighting retrofits
- HVAC Preventative Maintenance
- Energy Benchmarking