

Johnston City Community Unit School District #1



CUSTOMER BENEFITS

- Guaranteed energy savings
- Flexibility to expand systems
- Self-maintained and managed energy management system
- Centralized and remote access from the desktop

PROJECT AT A GLANCE

Project Type:

Energy Performance Contract

Location:

Johnston City, Illinois, USA

Number of Buildings:

4 schools

Guaranteed Annual Savings:

\$28,143

Environmental Facts:

Johnston City CUSD #1 annually saves energy equivalent to ...

- Reducing CO₂ emissions by 1,020 tons
- Removing 204 automobiles from the roads
- Planting 278 acres of trees



A performance contract empowered this school district to successfully tackle rising energy costs while reducing energy consumption, improving environmental conditions, and providing centralized control.

The Challenge

Johnston City is a 2-square mile community of 3,500 people located 120 miles east of St. Louis. Its Community Unit School District (CUSD) #1 comprises four schools and serves a student population of 1,239 from pre-kindergarten to grade 12.

Faced with tight budgets and escalating energy costs, the school district actively sought a long-term solution to address a variety of energy-related issues.

Johnston City CUSD #1 wanted to tie together building control systems to monitor all four campuses from a central location. It also wanted to eliminate the problem of inconsistent temperature ranges and to update indoor lighting at some schools.

When the school district issued a request for proposal (RFP), Schneider Electric proposed a performance contract. The recommended performance contract would allow the school district to upgrade its building controls and indoor lighting, and to fund the project with guaranteed energy savings over a 10-year period.

The Solution

Schneider Electric leveraged the school district's existing TAC I/NET™ controls, added direct digital controls (DDC) where needed, and then tied everything together for all four campuses. The centralized energy management system (EMS) reduces both consumption and costs while allowing the district to monitor, control and enhance the indoor environment at each school.

By upgrading the indoor lighting at two schools, Johnston City CUSD #1 has lowered energy costs while taking advantage of newer technology to enhance classroom environments. The school district replaced T12 bulbs and magnetic ballasts in these schools with T8 bulbs and electronic ballasts; it also updated the exit signs with LEDs.

Schneider Electric helped Johnston City CUSD #1 secure financing for the energy management and lighting upgrades by arranging a low-interest lease/purchase agreement.

The Bottom Line

By the end of the performance contract's second year, annual energy savings for Johnston City CUSD #1 amounted to \$61,932 – almost 10 percent above the savings guaranteed by the performance contract. Moreover, the district has flexibility to use the additional savings to repay its loan more quickly or to bolster its annual budget for other projects. Schneider Electric trained the district's staff to self-maintain and manage the new EMS. As a result, the school district can schedule automatic shutdown of building systems throughout the district from a central location to conserve energy and control costs when school facilities are not in use.

Today, consistent indoor temperatures and lighting upgrades contribute to a more positive environment for students and staff alike.