

Harmony Independent School District



CUSTOMER BENEFITS

- Guaranteed energy savings
- Ease of operation and maintenance
- Interoperability with other systems
- Local and remote access
- Flexibility to expand
- Improved learning environment

PROJECT AT A GLANCE

Project Type:
Energy Performance Contract

Location:
Big Sandy, Texas, USA

Number of Buildings:
10

Total Area:
196, 841 sq. ft. (18,287 m²)

Guaranteed Annual Savings:
\$19,672



Seeking more cost-effective ways to manage energy consumption, Harmony Independent School District (ISD) opted for a performance contract to fund the implementation of a new energy management system, a uniform lighting system, HVAC retrofits and a creative water tank alarm solution.

The Challenge

Harmony ISD is located in the heart of East Texas, almost midway between Dallas and Shreveport, LA. Student enrollment is just under 1,000 in the district's four schools, which serve grades Pre K-12. All the schools are situated on a single campus.

Outdated HVAC systems were unable to adequately and consistently condition the band hall. Maintenance required on these units caused interruptions, and energy inefficiency led to increased costs. Although one school had building controls, the other three were unable to automatically control their environment or to schedule changes to meet specific needs and conserve energy.

Campus lighting was neither energy-efficient nor uniform. Several different designs had been used in various areas. Gymnasium lights, which had to be turned on several minutes before full light levels were needed, were often left on unnecessarily.

“If you are considering performance contracting, you can’t go wrong with Schneider Electric. They are true professionals in every way. Our energy savings have far exceeded their projections.”

Ray Miller

Harmony ISD Superintendent

The district had also been experiencing problems with its freshwater storage tanks. If the water levels got too low, there was no way of notifying district personnel so they could avoid issues raised by an insufficient water supply to bathrooms and cafeterias.

Harmony ISD wanted to work with a vendor experienced in addressing the challenge of having to work around students while classes were in session, as well as one capable of creating an innovative alarm solution for the freshwater storage tanks.

Harmony ISD turned to Schneider Electric to develop a cost-effective plan to address its needs. The company won favor due to its reputation in East Texas; Schneider Electric had already successfully partnered with dozens of neighboring schools. Based on the recommendations of other schools in the area that were reaping the benefits of performance contracting, coupled with the professionalism Schneider Electric exemplified, Harmony ISD found its partner in Schneider Electric.

The Solution

Schneider Electric worked closely with Harmony ISD to incorporate an existing EMS (from another manufacturer) into the TAC Vista™ solution. Today, the district uses the TAC Vista system to schedule HVAC with an enable/disable capability. A front-end computer helps the district use system reports for trending purposes and to optimize the new EMS.

Harmony ISD uses the new EMS in a zoned configuration to provide the school’s facilities with a full range of temperature controls. In addition, replacement of HVAC units in the band hall and

conversion to natural gas have enabled Harmony ISD to lower its overall energy costs while improving comfort levels. The facilities staff can now modify environmental schedules either locally or via remote access.

Schneider Electric also installed more energy-efficient lighting on campus. T12 lamps and magnetic ballasts were exchanged for more energy-efficient T8 lamps and electronic ballasts. In the gyms, single metal halide fixtures were replaced with fluorescent lights to provide instant striking when the switch is turned on.

Schneider Electric installed an innovative alarm system to remotely monitor the freshwater storage tanks, alerting the superintendent at any time – day or night – if the freshwater tanks fall below a critical level.

The Bottom Line

Harmony ISD used fund balance dollars to pay for the project, knowing that the district could replenish the fund with the guaranteed annual savings. In fact, the district achieved the first year’s projected energy savings within the first six months, demonstrating that the system would indeed pay for itself over time.

Schneider Electric trained the Harmony ISD facilities staff to operate and self-maintain the new EMS, saving the district time and money to modify schedules while ensuring that campus facilities always have the desired environmental levels.