



Rogers Public Schools— Elmwood Middle School

Rogers, AR

Energy Savings Fund Additional Projects and Budgetary Shortfalls

Rogers Public Schools has realized a 25-30% reduction in energy consumption across twelve schools that have undergone HVAC controls retrofits increasing efficiency and occupant comfort.

Challenge

In 2004, Rogers Public Schools realized their need to thoroughly monitor and reduce their ever increasing energy expense. After much lobbying by the district administration, a dedicated energy manager was added to the staff in 2007. His goal was very broad; reduce energy consumption. After benchmarking each school in the district, he noticed that Elmwood Middle School had one of the largest energy expense in the district and received a high percentage of comfort complaints. Upon closer examination it was revealed that approximately 80% of the controls installed during initial construction and a controls

expansion were either nonfunctional or nonresponsive. This lack of control resulted in significant issues for the school including inconsistent room temperatures, difficult diagnosis of system issues, and Elmwood's unusually high energy expense.

Even though it was clear that Elmwood's controls needed a major overhaul, implementing a project of this magnitude presented a logistical challenge. Closing the school to perform the work was not an option, nor was the summer break long enough to complete the project.

Solution

After examining all the issues that Elmwood Middle School was experiencing, Harrison Energy Partners proposed a controls retrofit to resolve their comfort and operational problems and enhance the capabilities of the control system. By replacing the

existing controls the district has regained functionality of the heating, ventilating, and air-conditioning (HVAC) systems. This allows operators to better address the comfort issues experienced by the faculty and students by maintaining setpoints and monitoring and controlling energy usage by allowing a threshold of setpoints for occupants to select. This has resulted in substantial energy savings that are being used to fund additional energy conservation projects and has allowed additional funds to be budgeted for operations.

In order to address the scheduling dilemma presented by the magnitude of this project, Harrison Energy Partners arranged to start working in the late afternoon after students had vacated areas of the building and work through the summer to complete the project in time for classes to resume in the fall of the 2009-2010 school year.



Elmwood Middle School, Rogers Public Schools, Rogers, AR



Harrison Energy Partners

Results

The results of this project have already been beneficial to the district and will continue to yield results in the form of energy savings for years to come, enabling the district to continue to reinvest in additional projects and resources for Rogers Public Schools.

- Energy consumption reduced 26% from 2008 to 2012
- Baseline EUI reduction from 50 kBTU/ft² to 35 kBTU/ft²
- Baseline Energy Star score was 62. Post retrofit score is 87
- First of 12 Trane™ controls retrofit projects across the district that resulted in significant energy savings
- Total district savings thus far from energy conservation measures including HVAC, lighting and envelope improvements: \$600,000

“During the first several months in this position it was tough to get people to believe energy savings could be beneficial. Now we’re able to roll these savings back into additional energy reduction projects across the district and give raises to faculty and staff that may not have otherwise been possible.”

*Dan Caley, Energy Manager
Rogers Public Schools*

About Harrison Energy Partners

Harrison Energy Partners, originally founded in 1983 by Bill Harrison as Harrison Trane Service Company, is the largest provider of commercial and industrial HVAC systems and services in Arkansas. With headquarters in Little Rock and locations in Springdale, Fort Smith, Mountain Home and Texarkana Harrison Energy Partners serves clients in 16 states. 135 Harrison Energy Partners employees provide Trane equipment sales, maintenance and repair services, process and comfort controls, parts and product support.

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Systems and Services

- Trane™ Tracer Summit Controls System
- Niagara-based Web User Interface
- Flexible scheduling of Harrison Energy Partners resources to complete projects

About Elmwood Middle School

Elmwood is one of four middle schools in the Rogers Public School District. It houses 868 6th-8th grade students and staff daily and was originally constructed in 1992.



Harrison Energy Partners is a
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