

Hickman Mills C-1 School District

Energy Savings Performance Contract (ESPC)



Many of the heating systems in the Hickman Mills district were over 40 years old and failing. These failing systems were creating a problem with indoor air quality which, in turn, created health problems causing students and teachers to be absent. Several of the district's elementary schools were not air conditioned, resulting in closing schools early when high temperatures created excessive heat.

RWE Clean Energy, through its subsidiary, Custom Energy Services, helped to improve the comfort levels and therefore increased classroom attendance by the addition of air conditioning to five of the district's elementary schools and one high school. Similar effects were realized by updating aging heating equipment. Productivity and safety have been increased as a result of improved lighting quality. Newer lighting equipment has resulted in more efficient use of energy, thereby saving taxpayer money.

ENERGY CONSERVATION MEASURES

Lighting and Lighting Controls

- High efficiency lighting
- Occupancy sensors

Building Controls

- Energy management system

Additional Upgrades

- Electrical Services

Heating and Cooling

- Boiler Plant
- Chiller Plant
- Cooling tower replacement
- HVAC conversion
- High efficiency motors
- Variable speed drives
- Air Conditioning



PROJECT DATA

LOCATION

Kansas City, MO

CONSTRUCTION DATES

May 2000 to October 2000

CAPITAL COSTS

\$7,422,716

ANNUAL SAVINGS

Energy Savings: \$200,397

ENVIRONMENTAL BENEFITS

4,361 tons of harmful greenhouse gas emissions reduced annually

Equivalent to:

- Preserving 27.6 acres of forest from deforestation* or
- Conserving 9,200 barrels of oil*

*Sources:

- Leonardo Academy's Cleaner & GreenerSM Emissions Reduction Calculator: <http://www.cleanerandgreener.org/resources/pollutioncalculator.html>
- U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator: <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>