



Mahopac Central School District (CSD)

Energy Savings Performance Contract (ESPC)



The goal of the Mahopac Central School District (CSD) was to reduce its energy consumption and its impact on the environment while improving the learning and working environment for both students and teachers. Having an annual energy budget of almost \$1,500,000, Mahopac's portfolio of eight facilities, some dating back to 1935, included four elementary schools, a middle and high school totaling over 700,000 square feet. In addition to the six K-12 schools, improvements needed to be made to the district's administrative and transportation offices.

The district's board of education began an Energy Saving Performance Contract (ESPC) to decrease the CSD's energy use and carbon footprint. Starting in April 2008, Con Edison Solutions (CES) conducted comprehensive energy audits which focused on sources of energy consumption and preliminary savings calculations. After the initial energy inspections, CES conducted a comprehensive engineering and economic analysis to determine life-cycle costs, guaranteed savings calculations, environmental benefits and metering and verification of equipment operations.



PROJECT DATA

LOCATION

Mahopac, NY

CONSTRUCTION DATES

August 2008 to June 2010

CAPITAL COSTS

\$8,774,214

ANNUAL SAVINGS

Energy Savings: \$402,561
Maintenance: \$143,426

ENVIRONMENTAL BENEFITS

2,286 tons of harmful greenhouse gas emissions reduced annually
Equivalent to:

- Preserving 15.4 acres of forest from deforestation* or
- Conserving 4,401 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>



In 2010, CES helped the school district decrease its energy consumption and saved taxpayer dollars by implementing a wide variety of energy saving projects. From basic lighting and building envelope infrastructure upgrades to heating, ventilation, air conditioning and building controls improvements and a renewable solar photovoltaic installation, the CES energy solutions resulted in energy, operating and maintenance savings of over \$500,000 annually, all guaranteed through an ESPC. Based on the ESPC results, Mahopac was able to achieve all of its goals.

“The construction management provided by Con Edison Solutions was quick to resolve any issues that arose throughout the entire process. Any other issues, whether it originated from the design or engineering phase, were also handled in a first class professional manner. I would highly recommend to any school district, municipality or any other commercial entity considering an energy performance contract like ours to secure the services of Con Edison Solutions.”

Leonard Costable,
Director of Facilities and Operations II,
Mahopac Central School District



PROJECT DATA

ENERGY CONSERVATION MEASURES/IMPROVEMENTS (ECMs)

- Lighting and lighting upgrades
- Boiler and controls
- Energy Management System
- Heating, Venting and Air Conditioning
- Steam traps
- Variable speed drives
- Vending machine controls
- Computer power management
- Building envelope including windows
- Solar photovoltaic system