

Mason County Central School District Scottville, Michigan

Project:	Mason county Central Schools
Size:	\$ 3,100,000
Type of Project:	Guaranteed Energy Savings Performance Project
Location:	Scottville, MI
No. of Bldgs.:	8
No. of Students:	1,300
Project Description:	Honeywell's role: General Contractor for Energy Performance Contract Work, Energy Auditing, Design Engineering, Project Management, Commissioning, Performance Measurement & Verification, Warranty Services.
List of Improvements:	<ul style="list-style-type: none">• LED Lighting Retrofits• Occupancy Sensor Installation• Direct Digital Control Installation• Energy Management System / Integration• Boiler Replacement• Unit Ventilator Replacement• Roof Top Unit Replacement• Fin Tube installation• Freezer Replacement• Ice Machine Replacement• Energy Efficient Motor Installation• Variable Speed Drives• Building Envelope Retrofits• Water Conservation Retrofits• Chrome Book Purchases



Project Implementation
March 2017 – April 2018

Source of Funds
Qualified Zone Academy Bond

Annual Energy Savings
\$117,457

Annual Operational Savings
\$33,457

One Time Gas & Electric Utility Rebate
\$49,164

Total Honeywell Energy Project Amount
\$3,100,000

Client Contact
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BACKGROUND

The Mason County Central School District is located in Mason County and serves roughly 1,300 students in the District. This energy project was developed to assist the District in repairing and replacing equipment but lacked the necessary funding. The strategy entailed developing an energy project that would pay for itself with savings from the existing budget. The strategy also included utilizing Qualified Zone Academy Bonds as a financing tool that allowed the District to borrow money at an interest rate of 0% for fifteen (15) years.

SOLUTIONS

The facility upgrade program was designed to generate savings to pay for both energy retrofits and replace aging infrastructure.

The biggest contributor of savings was the lighting retrofits and replacement. This included a mixture of LED T8 lamps, hybrid ballasts and reflector systems. There were also T5 systems installed in gymnasiums and LED systems on the exterior of the buildings. The energy efficiency and utility rebates made this a solid opportunity. Other key contributors were: district wide web-based energy management, integration of another companies control system, modified control sequences, energy efficient motors, variable speed drives, water conservation retrofits, building envelope – caulking, sealing, foaming, and pipe insulation.

There were also capital projects with energy efficiency benefits. Condensing boilers were installed at the High School and Elementary buildings. Roof top units were installed in the Middle School and unit ventilators with direct digital control were installed at the Elementary School.

To help the District with their IT initiative, chrome books were also purchased to assist in the educational process.

ENERGY REDUCTION

- Construction Period and First Year Savings: \$159,466
 - Electric: \$118,941
 - Natural Gas: \$28,405
- Total Energy use avoided = 8,474,205 KBTU

OTHER BENEFITS

- Reduced greenhouse gas (GHG) emissions
- Total Energy use avoided = 8,474,205 KBTU which equates to:
 - 1,214 acres of trees planted
 - 220 car's pollutants removed from the road
- Improved learning environment for students and faculty to assist the district with Student Achievement goals