



# Carbon conscious school to save \$46K with green tech

Meridian High School expects to bank \$45,873 and make school more enjoyable thanks to investment in facility improvements.



## Small-town school, big plans

Located in the small town of Mounds, Meridian High School serves four other small communities in Southern Illinois. With 300 pupils, the premises include a high school building and a more modern elementary school, which was added on when the town's original elementary school building had to be demolished.

Since the older part of the building dates back to 1966, it had fallen into disrepair. It had single-pane windows, ill-fitting doors, and outdated restrooms which did not support modern energy and water conservation standards. To improve sustainability, the school needed energy efficiency measures that would bring it up to date. The school also wanted to improve the building's aesthetics to create a better match with the adjoining brand-new elementary school, on top of enhancing amenities for pupils and staff, reducing cost and increasing their standing and perception within the community.

## A well-received refresh

Centrica Business Solutions provided Meridian with a plan of action that was considered the best fit for the school's requirements and delivered the most acceptable financing arrangements.

"The Centrica Business Solutions team came down from Chicago and spent three days doing surveys and tests on the building, then went away to work on the initial plan. They then came back and did some more studies and put together the final plan," says Meridian's Superintendent, Jon Green.

Work included updating the envelope of the building with all-new doors and 125 new windows. All the fittings in both restrooms were replaced and heating controls were renewed.



anticipated annual saving



annual water saving



annual electricity saving



This project means we are going to get a ton of energy savings and the building aesthetics are a lot better. Dealing with Centrica Business Solutions has been a very good experience.

Jon Green, Superintendent, Meridian High School

### Technical overview

Single pane windows have been replaced with Manko 2450 Series double glazed and tinted uPVC frames. Urinals, sinks, and stalls have been renewed and the fittings include new flush valves to reduce water consumption. While new boilers had been installed previously, the control mechanisms were still 20 years old so Centrica Business Solutions updated HVAC controls by implementing energy saving sequences into the existing Automated Logic WebCTRL building management system at the high school and the Prism building management system at the elementary school.

### Customer results

“This project with Centrica Business Solutions means we are going to get a ton of energy savings, and the building aesthetics are a lot better,” says Green.

It is anticipated that these Facility Improvement Measures (FIM) will save Meridian High School \$45,873 a year and will include a water usage reduction of 339,000 gallons a year, equating to \$4,637 every year. The new windows are expected to cut electricity usage by 3,254kWh a year and reduce natural gas by 2,617 therms a year while Building Infiltration Reduction work, such as new doors, will reduce electricity usage by 15,871 kWh a year and gas by 2,118 therms a year.

The school coped well with a six-month delay in the delivery of the windows, caused by COVID-19, but now the school benefits from the new windows that can be opened wide to let in the fresh air, in line with the state’s COVID-19 regulations. Unsightly old blinds have been removed and staff welcome the tinted windows that reduce UV light and brightness, especially when using projectors during lessons.

A flexible financing arrangement with Centrica Business Solutions means that the initial loan will be defrayed by energy savings over a number of years. Meridian now plans to build a solar field in the campus which is expected to provide 80 to 85% of their energy requirements. The project is anticipated to start in spring 2022 and will be carried out by Centrica Business Solutions.

“

Centrica Business Solutions was very responsive and whenever we had some changes throughout the process, they took the lead and kept me informed.

**Jon Green, Superintendent, Meridian High School**