

CASE STUDY:

Freeman Hospital - Neosho



QUICK FACTS

ENERGY SAVINGS

59.1 KW

388,500 KWH PER YR

Producing this amount of energy with photovoltaics (solar) would require a 320-kW array at a cost of over \$1million.

ENVIRONMENTAL IMPACT

230 TONS PER YEAR CARBON REDUCTION

ECONOMICS

INCENTIVES: \$55,500 (60% of project cost)

ANNUAL SAVINGS: \$29,500

SIMPLE PAYBACK: 1.3 YEARS!

PROJECT SCOPE

This project included everything from design & incentive work through implementation & recycling.

“Using OES’s crew allowed us to do the upgrade in a matter of three weeks without taking our maintenance staff away from other important tasks. I was pleased with their attention to detail, and the way they worked around our staff and clients.”

- Joe Yust – Director of Facilities Management

THE PROJECT

Administrators at Freeman Hospital in Neosho knew that an overhaul of their lighting system made financial sense; but burdening already-tasked maintenance personnel with updating or replacing several hundred fixtures in the 50,000 ft² hospital didn't seem like the way to handle it.

Using Missouri DNR's Best Price Energy Efficiency Program, Empire District Electric's Commercial & Industrial Rebate Program and a Region M Grant, nearly 60% of the project cost was covered through outside funding. OES was able to find further savings by replacing components of some fixtures that were slated for an expensive replacement.

Fixtures in Hallways, Patient Rooms, Operating Rooms, Elevators and Offices were all covered in this project. Program-Start ballasts were used in areas that are motion sensor candidates and a mix of 32-watt and 28-watt lamps were used to maximize the savings while reducing the number of items in the facility's lamp & ballast inventory.

3 and 4-lamp recessed “troffer” fixtures were upgraded to include a parabolic reflector behind the lamps and were reduced to two lamps. This process maintained perceived light levels while reducing power consumption by over 110-watts in some cases; 30% more savings than what would have been achieved with a standard fixture replacement.