



Next Generation Retrofit Helps Hospital Enhance Energy Savings

Saint Mary Hospital

Bon Secours New Jersey Health System
308 Willow Avenue
Hoboken, New Jersey

Energy Reduction

48 KW

Annual Savings

\$26,542.00 /yr.

Payback

2 years

Retrofit Description

Second Generation Upgrade of Lamps, Ballasts and Reflectors

Saint Mary Hospital was ahead of the curve when they updated their lighting system to T8 technology in the early 1990's. After enjoying over 10 years of energy savings, they looked to O.K. Electric to help them to further update their system to save even more.

Beyond T8 Technology

The combination of three T8 lamps and electronic ballast in an 18 cell parabolic fixture is still regarded as a highly efficient combination. Energy Solutions designed a custom retrofit insert made of 92% reflective white material that increased the efficiency of the fixture, while reducing the number of lamps utilized from 3 to 2. The existing 3 lamp electronic ballast was re-used,

providing an increased ballast factor with more light from the 2 lamps.

High lumen extended life lamps provide 7% higher lumens, with 50% less lumen depreciation and 20% longer life. The white reflector illuminates all cells evenly, and is comfortable to look at. Overall energy consumption decreased 25%, while light levels remained constant.

Other T8 Fixtures

In addition to the main fixture type, 2x2 fixtures utilizing T8 U lamps were converted to straight F17 lamps with a silver reflector. In addition to providing 25-50% energy savings, replacement lamp costs were reduced by 75%. 2X4 Prismatic recessed fixtures with four F32 T8 lamps were converted to two lamps with a special MIRO 4 reflector kit. Two lamp 1X4 F32 T8 fixtures were reduced to one lamp with a silver reflector.

Controls

Wall switches in some offices were replaced with occupancy sensors, providing savings of over 30% on average. Soda Machines were updated with Vending Mizer controls, reducing energy costs over \$125.00 per machine annually.

Exit Signs

Existing LED exit signs had depreciated over 10 years, and while they were lit, they no longer provided enough illumination to meet code. The kits were replaced to once again provide years of maintenance free operation.

Other Areas

A thorough review of the facility found a handful of fixtures that were still T12, having been missed or skipped during previous retrofits. These were all updated to the T8/Reflector technology used elsewhere in the facility. Incandescent lamps were also upgraded to compact fluorescents.

A Reliable Solution

New lamps have a 3 year warranty, and occupancy sensors, downlight retrofits, and exit signs have a 5 year warranty, giving Saint Mary's peace of mind and a predictable maintenance budget for the coming years. Lamps are now standardized throughout the facility, and the hospital looks forward to years of increased energy savings in the future.

Energy Solutions

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