

CASE STUDY:

Energy Conservation at Howard Johnson's Enterprises



QUICK FACTS

ENERGY SAVINGS

12.1 KW
55,300 KWH PER YR

Producing this amount of energy with photovoltaics (solar) would require a 40-kW array at a cost of over \$150,000.

ENVIRONMENTAL IMPACT

32 TONS PER YEAR CARBON REDUCTION

ECONOMICS

INCENTIVES: \$23,700 (over 1/2 of the project cost)

ANNUAL SAVINGS: \$7,300

SIMPLE PAYBACK: 2.5 YEARS!

PROJECT SCOPE

The Project included work in Offices, Warehouse, Storage and Production areas.

“When they showed me the energy savings and incentives, I said ‘This is a no-brainer’ and went to work getting the project approved. ... OES did what they said they would when they said they would do it and I am very pleased with the results.”

- Monte Anderson, Plant Manager

THE PROJECT

Howard Johnson's Enterprises operates a 42,000 ft² facility in Neosho, producing fertilizer products and ice-melt. The lighting system was due for an upgrade with energy saving opportunities throughout the plant and safety or maintenance concerns in some areas.

WAREHOUSES

High-Bay High Pressure Sodium fixtures in two of the warehouses were replaced with 8-foot 6-lamp fluorescent fixtures with mirrored reflectors, high output ballasts, occupancy sensors and protected lamps. The result was an increase from 23.6 foot-candles to 33.8 with much better distribution and lower energy consumption.

High Pressure Sodium Fixtures (left) were replaced with 8-foot T8 fixtures with 5000-kelvin color temperature light (right). Untouched side-by-side Photo

Another warehouse was already using a mix of High-Output and Slimline T12 fluorescent fixtures. These fixtures were retrofitted to accept T8 lamps with Program-Start Ballasts and each aisle was placed on an occupancy sensor with a switched override in case of failure. With the infrequent use of this space, the savings from occupancy sensing are significant.

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THE PROJECT (CONTINUED)

PRODUCTION AREA

The existing T12 slimline and High Output fixture were either retrofitted to accept a T8 Lamp and Ballast system or replaced with new Specification Grade Strips. Light levels were increased in areas where it was needed and power consumption was decreased in each of the production fixtures.

STORAGE AREA

Incandescent fixtures in a storage room were removed and replaced with 8-foot spec-grade T8 fixtures. This increased light levels from under 10 foot-candles to over 40 while slightly reducing power consumption and significantly reducing maintenance time. The installation allowed fixtures to be placed above the webbing in the concrete ceiling, increasing overhead room.