



Service/Product Provider

New England Energy Management, Inc.

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Industrial Partner

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New England Energy Management, Inc. (NEEM) realizes \$1.5 million in energy savings at 18 Ford High Volume Center (HVC) distribution centers.

Project Scope

Replaced 11,500 Metal Halide HID highbay light fixtures with six-lamp T8 fluorescent fixtures with GE lamps/ballasts controlled by integrated Sensor Switch occupancy-photo cells. Reduced highbay wattage by over 50% per fixture. Replaced eight-foot F96T12HO & VHO fixtures in mezzanine and parts bin areas with eight-foot fixtures containing two F32T8 lamps and a reflector. Reduced mezzanine wattage by over 65% per fixture. Replaced incandescent exit signs with LEDs with battery backup reducing energy by 95%.

Project Summary

Provided a turnkey design and installation that optimized natural light by integrating photocells into 7,800 fixtures where skylights were already part of the building design. Placed fixtures with integrated occupancy sensors strategically in areas where the occupancy rates fluctuated over the course of the workday. Required no upfront investment from Ford Motor Company. Processed incentives and rebates which offset 15% of the project cost, with the balance addressed via an energy performance contract. Ensured all non-energy savings – such as reduced maintenance costs – accrue 100% to the facility.

- **Energy Savings**
Annual electric savings of \$1.5 million, 20k mWh, resulting in a 70% reduction in lighting energy.
- **Investment**
\$3.7 million project cost was offset by \$555,000 in utility incentives, with balance of \$3.1 million financed by NEEM through an energy performance contract.
- **Financial Return**
HVC projects were stand-alone, delivering between a 6 and 45 month ROI. All projects delivered a positive or neutral cash flow to Ford.
- **Other Benefits**
Cooler workplace environment/higher color rendering improved safety and reduced errors. GE provided a two-year lamp warranty and five-year ballast warranty, reducing maintenance costs.

Monitoring & Verifying Energy Savings

Investment grade audits were completed at each HVC. Pre and post inspections were performed by the utility companies, NEEM personnel, and representatives from Ford as required. Data logging was performed using Sensor Switch data loggers. Confirmation of 50%+ occupancy savings was recorded and confirmed.

Distinguishing Value

“The professionalism and technical knowledge provided by NEEM resulted in successful installations coast-to-coast. NEEM was able to deliver project goals while working in unionized environments without disrupting production. Eligible incentives were identified by the service provider to help shorten payback.” -Ford