



Service/Product Provider

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Varo Engineers implements phased-in lighting system upgrade at Owens Corning plant in Newark, Ohio, saving \$270,000 annually in electricity and maintenance

Project Scope

Varo Engineers, Inc. replaced existing lighting systems in targeted buildings and areas with new energy efficient lighting fixtures using T5 / T8 lamps and ballasts, some equipped with motion sensors and time delay sensing capability. A total of 2,376 fixtures were installed, reducing energy and improving lighting levels to meet or exceed Owens Corning's corporate lighting standards.

Project Summary

Systems were selected for upgrade based on a survey and analysis of nearly 4,500 light fixtures. Targeted areas were established and prioritized based on area usage and payback potential. Varo developed a plan to minimize "touch-time" of each fixture, reducing labor costs and maximizing payback. Installations were scheduled and well communicated to reduce impact on each work area. Removed fixtures were efficiently managed and routed through an appropriate waste program.

- **Energy Savings**
Approximately \$205,800/yr, or more than 20% in electricity savings for lighting
- **Investment**
\$759,850
- **Financial Return**
Saving \$270,000/yr in electricity and maintenance; 2 years 10 months simple payback
- **Other Benefits**
Maintenance savings of 23% or \$63,150/yr anticipated due to new lighting and 5 year warranty on all fixtures. Corporate lighting standards in each area were met or surpassed, and plant electricians gained expertise installing lighting fixtures.

Monitoring & Verifying Energy Savings

Potential savings were determined using manufacturer data combined with engineering calculations. Actual savings realized were verified using an analytic budgetary model. Expanded training and involvement of employees offers ongoing monitoring.

Distinguishing Value

Varo provides on-site design and engineering support throughout Owens Corning, including international facilities. This Client Site Services approach gives Varo daily, hands-on involvement in the dynamics of the plant floor and a complete understanding of the needs and intentions of the client.