

Corning integrates company-wide efficiency with On-site Energy Management

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Case Study

Company Name:
Corning

Industry:
Transportation Equipment

Location:
Corning, NY

Annual Electric Savings:
466,573 kWh

Annual Natural Gas Savings:
29,081 MMBtu

Overview

Corning is one of the world's leading innovators in materials science. For more than 165 years, they have applied unparalleled expertise in glass science, ceramic science, and optical physics to develop products that transform industries and enhance people's lives.

Through sustained investment in research and development, a unique combination of material and process innovation, and close collaboration with customers, Corning is solving tough technology challenges.

Corning's businesses and markets are constantly evolving. Today, their products are enabling diverse markets such as optical communications, mobile consumer electronics, display, automotive and life sciences, and include:

- Damage-resistant cover glass for smartphones and tablets
- Precision glass for advanced displays
- Optical fiber, wireless technologies, and connectivity solutions for high-speed communications networks
- Trusted products that accelerate drug discovery and manufacturing
- Solutions for cleaner, safer, and more connected vehicles

The Erwin Plant manufactures ceramic substrates and particulate filters that are used globally in pollution control systems and clean-air technologies for automotive applications. The Integrated Die Manufacturing (IDM) Plant manufactures tools for use in product manufacturing. The Southern Tier Logistics (STL) warehouse stores and distributes materials.

Through New York State Energy Research and Development Authority's (NYSERDA) On-Site Energy Manager (OsEM) Program, the Erwin and IDM Plants, and STL warehouse engaged an OsEM on a full-time basis for one year. Projects facilitated by the OsEM included operation and maintenance improvements, energy efficiency upgrades, energy tracking, and process improvements.



“The On-site Energy Manager project was effective at organizing clear opportunities to improve the utilization of energy in the daily operations of the factory. Having a dedicated resource for this activity was critical to the success.”

— Corning

Goals

- Develop and drive methods to achieve a reduction of 1,734,000 kwh electricity and 12,300 MMBtu natural gas in annual energy use.
- Provide guidance and expertise to help maximize financial benefits of relevant energy efficiency programs, such as the NYSERDA FlexTech Program.
- Demonstrate and promote the value of integrating energy management as a core business practice and of applying principles of continuous improvement to foster substantial long-term savings.
- Develop project lists and implementation plans to continue to reduce energy use per unit of production.

Results

Energy Efficiency: The OsEM worked with the team of Corning engineers, project managers, maintenance staff, and plant management to facilitate implementation of energy efficiency measures and track goals. Energy use, indexed to units of production, decreased by 466,573 kWh electricity and 29,081 MMBtu natural gas, relative to the baseline year. Process improvements developed by Corning were central to the energy efficiency gains.

Cost-Shared Technical Assistance: IDM was eligible to apply for cost-shared technical assistance through the NYSERDA FlexTech Program. The OsEM supported the application with technical analysis and data collection.

Integrating Energy Management into the Business: The Site Energy Teams were revitalized. Topics of discussion at the meetings included technical aspects of energy efficiency projects in progress, ideas for new energy efficiency projects, coordination of resources to accomplish projects, tracking goals, and best practice sharing. As a result of these meetings, new ideas were brought up for capital improvements and operation and maintenance measures.

Long-Term Planning: An Energy Management Plan was developed in consultation with business stakeholders. The plan commits to continuous improvement, assessing performance, setting goals, implementing an action plan, evaluating progress, and recognizing achievement.

The NYSERDA On-Site Energy Manager Program

Through the On-site Energy Manager (OsEM) Pilot Program, NYSERDA cost-shares up to 75% of the cost to hire an OsEM. OsEMs work with companies to develop and implement successful energy and productivity projects. Projects may include operation and maintenance improvements, behavioral changes, energy efficiency upgrades, process improvements, throughput and scrap reduction improvements, and cost management.

Discover how to bring energy costs under control and improve profitability with NYSERDA.

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