



Service/Product Provider

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Industrial Partner

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CHA identifies compressed air energy savings opportunities for Corning Incorporated, with potential for \$85k in annual savings and less than 2-year payback if fully implemented

Project Scope

CHA worked with Corning to conduct a detailed energy assessment at its Environmental Technologies plant in Erwin, NY. The facility is served by two compressed air plants that are the primary industrial utility, and energy conservation measures (ECMs) related to the demand side of the compressed air system were assessed.

Project Summary

The assessment involved the permanent installation of 26 compressed air flow meters that were used to perform a comprehensive system-wide data logging of air flow, power, pressure and trending to establish a detailed baseline of how the plant utilizes compressed air. An air leak survey, using an ultrasonic leak detector, identified nearly 60 air leaks totaling an estimated 132 cubic feet per minute. Following the baselining and data analysis, the following ECMs were identified and evaluated: compressed air leak repair, strategic installation of system isolation valves, installation of dry coolers for air compressor cooling, and system generation pressure reduction. These ECMs were recommended to Corning for implementation.

- **Energy Savings**

The ECMs identified during the assessment are estimated to yield electric energy savings of \$85,400 (if fully implemented by Corning).

- **Investment**

Total project implementation cost for the recommended ECMs require an estimated investment of \$166,600. The assessment cost of \$67,000 was shared by Corning, NYSERDA, and Rochester Gas & Electric, and included \$30,000 of installed metering equipment.

- **Financial Return**

Assuming full implementation, a simple payback of the overall project is estimated at 2 years.

- **Other Benefits**

Improved awareness about the economical use of compressed air and the importance of proper system maintenance. Periodic compressed air leak surveys were recommended to minimize system demand.

Monitoring & Verifying Energy Savings

With the installation of extensive system monitoring equipment, Corning is now equipped to easily verify its compressed air savings as improvements are made. The plant now has the ability to monitor and trend future compressed air flows.

Distinguishing Value

CHA drove the process and action to help the plant identify ECMs that could achieve its intended results. The company identified immediate savings and educated our employees on the cost of using compressed air, pressure control and optimization, leak management, and the application of more efficient technologies. The benefit of the installed metering equipment allows the plant to establish baseline, monitor performance, and take action when compressed air consumption increases. With the ever changing production demands and operating requirements of the plant, CHA was very responsive and flexible in adjusting its schedule, showing a commitment to customer service, and delivering project success. CHA has been a valuable resource to Corning's energy program.