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NYSERDA

Berry Global Group packs energy savings with On-site Energy Manager

Case Study

Company Name:
Berry Global Group Inc.

Business Type:
Packaging and Protective
Solutions Manufacturing

Location:
Macedon, New York



Overview

Berry Global Group Inc. is a leading provider of value-added plastic consumer packaging, nonwoven specialty materials, and engineered materials with a track record of delivering high-quality customized solutions. Acquired by Berry Global in 2010, the Macedon facility consists of 40 contiguous buildings, totaling 650,000 square feet. The facility includes a variety of heating and cooling systems, HVAC fan systems, compressed air systems, and a building management control system.

Since 2011, the plant manager and his team of seasoned professionals have made the Macedon facility an extremely profitable and safe workplace. With a commitment to minimizing the facility's environmental footprint and conserving natural resources, Berry Global participated in the New York State Energy and Research Development Authority's (NYSERDA) On-Site Energy Management Program. Through the program, Berry partnered with EMCOR, a company specializing in industrial and energy infrastructure and facilities services. EMCOR, also a NYSERDA approved Flexible Technical Assistance consultant, provided the facility with a full-time on-site energy manager (OsEM).

Unwrapping Potential

Understanding the responsibilities of each department head enabled the OsEM to obtain the information necessary to perform many of the required tasks in a timely manner and better evaluate savings opportunities. The OsEM was responsible for developing and providing an energy management plan, while increasing the company's profitability by delivering process and operational improvements.



“The On-Site Energy Manager provided us with a professional level of expertise that enhanced our overall operations, work environment, and profitability.”

— *Berry Plastics*

Over the course of the 15-month program, the OsEM worked to meet the energy reduction goal while simultaneously achieving Berry Global’s additional objectives and expectations for the facility—energy performance, sustainability, and market success. Defining all objectives at the beginning was vital in developing a strategy and held the focus throughout the contract. During that time, 25 energy conservation measures were identified and analyzed. Also, Berry Global submitted two best practices to the corporate energy management library.

Developing Results

The savings realized from implementing the OsEM’s recommendations totaled 105,900 kWh in electric, 7,754 MMBtu in gas and 489 metric tons of GHS—equating to \$40,473 in overall utility savings. Payback for each project was calculated by taking total cost less rebates and incentives divided by annual energy and maintenance cost savings.

Continuous Utility Analysis (compared to baseline 2016 data)

Given the size of this facility, there are multiple utility company accounts for electric, gas, and water. The OsEM developed a utility tracking and monitoring system to perform this comparison. Each metered account for all utilities was tracked on a monthly basis for the past three years. Analysis was completed on a month-by-month, YTD, and year-by-year basis. Production pounds, run-hours, and pounds per run-hour were also tracked on a month-by-month and a YTD basis for each department for the past three years. Cost savings across all utilities at the conclusion of the contract were \$355,503 less than the 2016 baseline utility costs.

Impacting the Future

The OsEM developed several tools intended to keep Berry Global on track for continual success toward achieving energy goals following the completion of the contract. Staff training and a cross-functional energy team will play a major role in sustaining an energy management plan, creating a standardized energy tracking system, and performing detailed energy audits. Additionally, the team will continue to identify savings opportunities for future improvement and development, implement energy management strategies and projects, and define a measurement and verification plan to validate results.

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