



Blommer Chocolate Company Finds Sweet Savings with Energy Intelligence Software

Company Optimizes Operations Through Unprecedented Visibility

The Customer

Blommer Chocolate Company is the largest cocoa processor and ingredient chocolate supplier in North America. With four manufacturing facilities in North America—three in the US and one in Canada—the company works with domestic and international customers of all sizes in the confectionery, baking, and dairy industries, focusing on cocoa bean processing, chocolate manufacturing, commodity risk management, and product and process research and development. Founded in 1939, the family-owned and operated company maintains an outstanding reputation for customer service and quality.

The Challenge

In 2011, Blommer Chocolate initiated a comprehensive energy conservation program as part of its efforts to reduce waste throughout its manufacturing operations. Reducing energy consumption is a priority for the company, but energy savings isn't the only objective for instituting such a comprehensive program. Eric Bliss, Senior Engineering Manager for Blommer Chocolate, knows that managing energy also means improving productivity across your business.

“To us, saving energy is only one facet of cost savings that organizations can find. When you save energy, you can't help but save on other manufacturing costs, such as maintenance and productivity,” says Bliss. For example, Bliss notes, “We upgraded a chiller in one of our plants last year and only got a 10% return on energy—but we were able to show the same amount in maintenance savings on top of that for a total of \$300,000 on energy and \$300,000 on maintenance.”

Fast Facts

Industry:

Food Manufacturing

Locations:

East Greenville, PA, Chicago, IL, Union City, CA, Campbellford, Ontario; Shanghai, China

Key Benefits:

- Increased visibility into operations
- Verifiable savings
- Ability to prioritize energy efficiency projects
- Ability to communicate to customers about company conservation initiatives



The Solution

Funding Energy Efficiency Investments with Demand Response

Like many other manufacturing facilities, funding energy efficiency investments is often Blommer Chocolate's biggest logistical hurdle, which is why it made sense to start with demand response. The company currently has three of its facilities—one in Ontario, one in Pennsylvania, and one in Chicago, enrolled in demand response, earning the company significant return on investment over several years, as well as covering the cost of the software.

Efficiency Begins with Visibility

In late 2013 and early 2014, Blommer Chocolate deployed EnerNOC's energy intelligence software (EIS) across three of its facilities in order to access its real-time energy data and increase visibility into its operations.

The software also provides Bliss and team with an integrated platform to look at energy data across different facilities that span three different utility territories.

"Having a central repository for the data makes my job so much easier to just monitor what's going on at multiple sites," says Bliss. "I have access to interval data from my utilities: PPL, Hydro One, and ComEd, but it is not real-time data... and even if it was [in real time], it's still three different platforms I have to navigate. Trying to add them all up and compare data is extremely difficult."

In addition to real-time data visibility and centralization, EnerNOC's EIS provides Bliss with proactive alerts to warn when new peak demand charges are incurred. Bliss has used the alerts to determine when his plants set energy usage thresholds. When the plants were hitting the thresholds four or five times a week,

for example, Bliss made changes to processes at the plants so they only hit the thresholds once a week. The alerts give Bliss the ability to understand when his plants hit higher levels of usage and make adjustments to avoid those levels as much as possible.

Knowing Where to Prioritize

In addition to providing visibility into low- and no-cost operational changes, EnerNOC has helped Blommer Chocolate tackle larger capital investment projects, securing utility rebates and incentive dollars to make the economics even more compelling. In 2013, EnerNOC helped Blommer Chocolate's Chicago plant secure funds from ComEd to cover the costs of an Industrial Process Cooling and Refrigeration Audit, and in California, EnerNOC helped the company take advantage of Pacific Gas & Electric's incentives for a boiler retrofit project. Blommer Chocolate has also been able to stop enough air leaks in its Chicago plant to turn off a compressor entirely, saving the company \$35,000 a year.

Results You Can Verify

Bliss and team know firsthand that verifying the impact of energy management investments can't always be accomplished by looking at a monthly energy bill.

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Eric Bliss, Senior Engineering Manager, Blommer Chocolate

“We run a multivariable linear regression that predicts how much energy we should use to produce a given volume and product mix. For example, if we roast X pounds it can tell us how much energy we should be using as a result,” explains Bliss.

“We use EnerNOC’s software to monitor our actual consumption, which we compare with the predicted consumption and make adjustments accordingly. We’ve also used EnerNOC’s software for measurement and verification (M&V) of certain projects, as well as an indicator of overall energy conservation and performance.”

“Before we had access to our real-time energy data, one of our plants had a chiller replaced with a more efficient unit. However, we didn’t see the resulting reduction in our electric bill. The plant was growing, and our original calculation of expected savings didn’t factor in the growth in demand that the plant would experience, which meant more energy use. The chiller replacement was actually successful and did generate savings, but they weren’t immediately visible because we didn’t have access to our real-time energy data. Another plant with the real-time data also replaced chillers for efficiency savings, and as a result, we were able to weed out the volume effect on daily consumption to show savings over \$300,000.”

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Bliss treats and manages energy the same way he manages Blommer Chocolate’s other operations and processes. The data provided in the EnerNOC application helps him measure electricity the way he manages production data and cost for other commodities at the plant like cocoa and sugar. “Energy is not rent; it’s actually more like an ingredient, with consumption directly correlated to production,” says Bliss. “It’s an actual, manageable cost.”

As Blommer Chocolate’s customers become more interested in the company’s sustainability and conservation efforts, it is becoming increasingly important for Bliss to be able to communicate and report out energy savings in an effective manner. With EIS, Bliss is able to pull energy consumption information and easily communicate progress and results to Blommer Chocolate’s stakeholders.

The Future

Bliss plans to continue to use EnerNOC’s energy intelligence software to streamline Blommer Chocolate’s electricity bills through utility bill management. With the company’s bills in a centralized database and a bill validating system, Bliss will be able to save time and resources and ensure Blommer Chocolate is being charged correctly by its utility. Blommer Chocolate also expects to expand the company’s use of EIS to track energy consumption by process to reduce waste and manage costs at a more granular level.

For more information, visit enernoc.com or email info@enernoc.com.

Catch up on the latest best practices in energy management on our EnergySMART blog, energysmart.enernoc.com.
