

Energy Management Helps Build Savings Brick by Brick

Ask Brad Duke, Vice President, Manufacturing for Brampton Brick, why he uses an outsourced energy management company and he'll give it to you straight:

"We're in the brick business," he says. "Making bricks is our core competency. Energy management is a specialized business and we think it is best left to the experts."

Manufacturers are under immense pressure to improve the bottom line in increasingly competitive markets. Energy management can play an important role in lowering operating costs and reducing risk.

Brampton Brick is North America's single largest brick manufacturing facility under one roof, producing 300 million modular brick equivalent top-quality bricks per year. Its \$70 million, 400,000 square-foot facility is computer controlled and operates 24 hours a day, 7 days a week. Football-field sized, energy-efficient kilns run at temperatures of nearly 1,050 degrees Celsius.

That kind of output requires a large volume of natural gas and electricity. Duke estimates that electricity accounts for 5% and natural gas accounts for 20% of his manufacturing costs, to the tune of \$6.5-7 million annually.

"It's our single largest manufacturing expense," he says. "We spend more on natural gas than we do on labour."

Gas deregulation is a reality across most of North America and consumers are increasingly vulnerable to the pricing and delivery practices of suppliers, utilities and transmission companies. When a significant portion of a manufacturer's operating budget is spent on energy, market price volatility can have a huge impact on a company's bottom line and stability. When energy prices go up, profit margins go down, creating a rollercoaster ride for investors and stakeholders.

Duke says using experts like the team at Energy Advantage Inc. to handle energy procurement strategies and negotiations can reduce the risk significantly.

"They have their thumb on the market hour-by-hour in a way that manufacturers like me just don't have the time or the expertise to consider," he says. "They understand the market and its inherent risks and are able to develop and present different strategies based on the risk tolerance of our company."

For Duke, that knowledge and understanding resulted in a deal early in 2002 that locked Brampton Brick into a two-year, low, fixed-price contract for natural gas. A similar arrangement for electricity was signed in May of the same year. He says

this allowed him to know in advance exactly what he would be spending on energy each year.

“Every penny per gigajoule we save translates to roughly \$10,000. This helps the company remain profitable in the highly competitive NAFTA region marketplace.”

Duke stresses, however, that energy management is more than just negotiating contracts. Measuring usage and reporting is a fundamental part of the equation. Brampton Brick purchases its natural gas from western Canada, and it is then delivered to an Ontario distributor based on plant production and correlating energy usage forecasts. Delivery volume estimates are given to the distributor in the fall of each year.

Last year, Brampton Brick underwent a partial production shut-down in order to implement capital improvements and perform scheduled maintenance. That shut-down meant the company did not require its usual full-production volume of natural gas and a surplus began to develop at the distributor.

Based on recommendations from the experts, Duke held onto that “banked gas” until the market value of this gas exceeded the purchase price.

“In this instance, price volatility worked in our favour,” says Duke. “We managed to sell the surplus at a considerable profit, as the market price at that time was significantly higher than the locked-in rate we had negotiated previously.”

Choosing an Outsourced Energy Management Company

Duke chose his energy management firm based on the backgrounds and knowledge level of the Energy Advantage team, in addition to the range of holistic “total energy management” packages offered, which can include everything from procurement and reporting to invoice management, to energy efficiency, emissions reduction and environmental compliance services.

“A company of Brampton Brick’s size needs someone watching energy consumption and expenses at all times,” he says. “Our other option was to hire a full-time energy manager, but I feel one person can never match the performance of an entire group of experts working in the energy management business full-time.”

Other factors for manufacturers to consider when thinking about energy management include:

- risk tolerance for energy supply and procurement costs
- current in-house energy management capabilities
- degree of commitment to energy management
- targets for reducing energy prices, usage
- protocols for measuring energy consumption, and emissions
- standard reporting formats to allow comparisons across all facilities

- environmental policies and compliance with governmental programs

Successful energy management doesn't happen overnight. It involves expertise, time, effort and commitment to reap the best long-term rewards. But those long-term rewards are truly worthwhile in terms of stability, risk reduction and competitive advantage.

About the Author

Ron Percy is Senior Vice President, Marketing and Client Services for Energy Advantage Inc., a leading provider of independent and objective total energy and environmental management services. Energy Advantage works closely with industrial companies to build and develop energy management programs specific to the sector.