VFDs CAN SIGNIFICANTLY LOWER ENERGY COSTS

THE ILLINOIS Manufacturer

Managing your energy strategy all year round

mHUB is Chicago’s first manufacturing innovation center — opening in January

What every manufacturer should know about TSCA reform
Managing your energy strategy all year round

Understanding the range of factors that influence energy prices can be a time-consuming and confusing process. Constellation, the IMA’s endorsed energy provider, has various market intelligence publications available to keep you informed.

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American manufacturing is at a crossroads. Foreign competition, rising operational costs, and the search for a qualified workforce are enough to keep any manufacturer awake at night. However, partnerships between private and public organizations with visionary and proactive strategies can offer U.S. manufacturers a competitive advantage.

Manufacturing is vital to the country’s economy, but it can leave behind a big environmental footprint. The opportunity for companies to save money through environmental stewardship has often been considered an elusive, if not entirely unattainable, “win-win” scenario. But when it comes to water, all that is changing.

Most manufacturers in the United States are paying full-price to use high-quality drinking water for processes that do not necessarily require potable water. It’s an expensive and ultimately wasteful practice. Fortunately, an affordable, safe, and practical alternative to potable water can be found in municipal effluent—that is, treated wastewater from homes, businesses, and industries.

As leaders in the water industry, Illinois American Water (IAW) has partnered with the Metropolitan Water Reclamation District of Greater Chicago (MWRD) on an innovative effluent reuse project. This public-private partnership will offset manufacturers’ operational expenses by supplying companies with low-cost treated effluent, also known as recycled water. Properly recycled water meets health and safety standards required for the vast majority of industrial uses, such as fabricating, processing, washing, diluting, cooling, and transporting.

This partnership will explore opportunities for industrial reuse of effluent water from MWRD’s Calumet Plant, which treats approximately 237 million gallons of wastewater per day while eliminating 90 percent of contaminants. IAW will build and maintain the necessary infrastructure to deliver the recycled water to industrial users while MWRD continues to process and treat wastewater. Once-used recycled water will be conveyed back to MWRD for another round of treatment and subsequent reuse.

As both a member of the Illinois Manufacturers’ Association (IMA) and a steward of our natural environment, IAW shares a common interest in helping preserve, protect and enhance manufacturing operations while also advancing sustainable water solutions throughout the Chicago area. A growing percentage of the U.S. population recognizes the importance of water stewardship and expects companies to adopt greener practices, yet day-to-day industrial operations are often inherently water intensive. Recycled water provides an opportunity for manufacturers with even the largest water footprint to become environmental champions.

The idea that saving money and saving water are on opposite ends of the spectrum is an outdated way of thinking, long past its sell-by date. Instead MWRD and IAW are seeking to capture the economic value in what was once considered waste. Recycled water is an affordable and realistic alternative for manufacturers currently paying full-price for potable water. It’s good for the planet and good for the bottom line.

Illinois American Water
IAW serves approximately 1.2 million people in 127 communities across the state of Illinois, providing high-quality water and wastewater service. IAW is a regulated utility governed by the Illinois Commerce Commission. The company operations follow strict regulations created by the United States Environmental Protection Agency (USEPA) that help to provide high quality drinking water.

IAW’s parent-company, American Water, was founded in 1886 and today is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, New Jersey, the company employs 6,700 dedicated professionals who provide regulated and mar—

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damper to control the flow of liquids or gases. The VFD allows the motor to speed up or slow down to provide the necessary pressure — eliminating the need for dampers and valves.

The sheer size of some of those motors made the Aventine project unique.

“It’s not common to install VFDs on 400 horsepower motors,” says Schultz. “Those are some very, very big dogs — but the bigger the motor, the bigger the savings.”

In fact, by modifying just 12 motors, Aventine has reduced its annual electrical use by more than 4.2 million kilowatt-hours a year. Those energy savings boost the bottom line by nearly $300,000 every year — and help the environment, too.

To help fund the improvements, Ameren Illinois provided more than $170,000. The incentive money cut Aventine’s project costs by more than half. And because Aventine has limited funds for capital projects, receiving incentives through Ameren Illinois helped push the project to the forefront.

The project proved to be a wake-up call to the power of energy efficiency. With an eye for energy efficiency, the team at Aventine hopes to transform their workplace — originally built in 1899 as a sugar processing facility — one project at a time.

**Resources available for VFD projects**

The Ameren Illinois Energy Efficiency Business Program has a number of valuable resources designed to help with your VFD energy efficiency project. The program offers free energy consultations, which can help identify the best applications for a VFD and detail how to secure cash incentives to offset project costs. For a limited time, Ameren Illinois can provide businesses with a cash incentive of $115 per horsepower controlled for motors of 500 horsepower or less . . .

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up to 75 percent of the project cost. The program also offers $0.06 per kWh saved for VFD installations on motors larger than 500 horsepower. Your facility may also be eligible for an additional incentive bonus when you complete your project before March 31, 2017.

To schedule an energy consultation or inquire more about VFDs, please call us at 866-800-0747. You can also get more information at ActOnEnergy.com/VFD.

**About the Ameren Illinois Energy Efficiency Program**

Since 2008, the award-winning Ameren Illinois Energy Efficiency Program has helped Illinois businesses save over $360 million in energy costs. Utilizing more than $85 million in cash incentives, business customers have been able to cut project costs, decrease payback periods, and move energy efficiency projects forward.

**References**


Visit ActOnEnergy.com/VFD or call 866-800-0747 for more information.