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Paper company makes, sells power

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HAMILTON - Smart Papers is no longer just in the business of making premium printing papers anymore. Now, it's also producing and selling electricity.

Since completing a \$30 million investment in new power turbines in June, the 116-year-old paper company has been actively marketing electricity produced by its two coal-fired boilers.

The co-generation plant, producing steam for paper-making and electricity, can produce about 37 megawatts of electricity including about 20 megawatts it can sell on the Midwest electric grid, the network of wires and distribution lines that send power across the region all the way to the upper Midwest.

Smart Papers is on the cutting edge of a concept that puts smaller pockets of electric generation closer to where it's needed. Advocates say the approach, known as distributed generation, takes stress off transmission and distribution lines and puts additional electric supplies near where it's needed.

"If there were 10 more plants like ours across Ohio, that would be an additional 200 megawatts of electricity," said Dan Maheu, Smart Paper's president and chief operating officer.

"What they're doing is pretty unique," said John Sturm, vice president of corporate development at ACES Power Marketing, a Carmel, Ind. energy trading and risk management firm. ACES handles back office functions for Smart Papers' power sales into the Midwest Independent Transmission System Operator (MISO), the nonprofit which oversees electric generation and transmission in a region that includes 11 states and 1 Canadian province.

Sturm, whose firm manages thousands of megawatts of power trades worth billions of dollars annually, said he's not aware of another Midwest manufacturer actively marketing its power the way Smart Papers is.

A number of utility customers, both resident and commercial, that have installed solar or wind generating equipment sell excess electricity their equipment produces back to the utility. Duke Energy says it has about 100 residential and commercial customers in the Midwest selling power they produce back to Duke, in a process known as net-metering.

But what Smart Papers is doing goes a step further.

It has established itself as a competitive energy supplier, actively monitoring price swings looking for opportunities to turn up its steam generators to produce more electricity to take advantage of price spikes.

"This concept gives us maximum control over our energy costs," Maheu said. Because the Hamilton plant's boilers burn lower-priced coal, it also gives the company the opportunity to make money off its electricity sales.

The early returns are mixed, Maheu said. July was one of the coolest on record, keeping electric prices down. "It wasn't a good month to be making electricity," he said.

Still other companies are taking notice. "I've gotten calls from several places out in California interested in what we're doing," Maheu said.

Watching the market

The plant uses steam in the paper-making process. Some of the pressurized steam is piped across North B Street to two new electric turbines each capable of producing about 9.5 megawatts electricity.

The turbines turn the steam into electricity, which flows back across the street to Smart Papers' plant where it's used to power the paper-making machines, keep the lights on and run the computers. The excess electrons flow onto the grid through local transmission lines.

The turbine operator in Smart Papers' power house not only monitors temperature and pressure gauges but also keeps an eye on a computer screen tracking current wholesale electric prices in five-minute increments in the Midwest.

The plant's boilers can respond in a matter of minutes to changes in electric prices. And when the price of electricity starts to tick upward, the turbine operator tells the boiler room to feed more coal into the plant's steam boilers.

But if electricity prices are flat or declining, the turbine operator tells the boiler room to cutback on steam production. When that happens, Smart could end up actually buying power, if prices decline enough, to meet its needs.

A new mindset

The approach may not suit every company, Maheu says, because Smart Papers is assuming a risk.

"We're at the mercy of the market," he said. "If we don't respond correctly, we could be paying higher prices for power or be forced with making an economic decision to cutback operations," he said.

Maheu said Duke Energy gave his company a lot of technical support for its move to an independent supplier. It's a different mindset that only supplying your own power needs, Maheu admits.

"We're taking 100 percent of the responsibility for our electricity needs," he said. We're not relying on the utility."

Smart Papers, which operates the former Champion paper mill, has gotten comfortable with managing its own power supplies over the last decade by participating in Duke Energy's PowerShare program, which gives lower rates to companies that agree to voluntarily cut back on using Duke power. Duke says it has about 120 businesses in Ohio and another 23 in Northern Kentucky participating in the load management program.

Smart Papers was one of the first companies to participate in the PowerShare program, when Duke's predecessor Cinergy Corp., introduced it more than a decade ago.

"We jumped on that program immediately. It just made good sense to us," said Maheu.

Additional Facts

Next step: renewable fuel

Within the next couple weeks, Smart Papers expects to begin testing renewable fuel in its new \$30 million co-generation plant in Hamilton.

The company, acquired in 2006 by Plainfield Asset Management, a Greenwich, Conn., investment firm, will begin burning half-inch waste wood pellets in its boilers. They are produced by a Wisconsin

company also owned by Plainfield.

Smart Papers burns about 100,000 tons of coal in its two boilers annually. "That's not insignificant," said Dan Maheu, president and COO.

The company hopes to eventually replace that coal with waste wood to achieve its goal of becoming the nation's first carbon-neutral paper mill. That is an important selling tool to many of Smart Papers' corporate customers, who are looking at ways to reduce their carbon footprint.

Unlike burning fossil fuels, which releases new carbon to the atmosphere, advocates for burning biomass, such as waste wood or other recent living material, say if it is managed on a sustainable basis, with new planting to absorb the carbon released in burning, it won't mean an increase in carbon dioxide in the atmosphere, believed to be a leading source of global warming.

Burning waste wood also allows the electricity produced at Smart Papers' co-generation to be claimed under Ohio's new renewable fuel standard, requiring 25 percent of the state's electricity come from alternative and renewable sources by 2025.

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