

High-performance IT solutions help Wisconsin businesses keep operating costs low

CASE STUDY

As energy consumption grows at businesses across the country, many Wisconsin businesses are finding innovative solutions to curb runaway energy consumption throughout their information technology (IT) departments. Here are some organizations taking action with a variety of approaches to control their IT energy costs. From purchasing energy-efficient equipment, adopting smart energy-management software, enhancing system design, and installing cost-effective cooling systems—these businesses are making a real difference and enjoying better bottom lines because of it.



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STARTING AT THE (DESK)TOP

Department of Health Services taps into PC network energy management

According to the Alliance to Save Energy, 50 percent of U.S. workers do not typically turn off their PCs at the end of the work day. As a result, businesses waste \$2.8 billion every year powering 108 million unused PCs.

To keep energy costs in check the State of Wisconsin—Department of Health Services (DHS) adopted PC network energy management controls on its computer workstations. The new controls not only cut energy consumption, but significantly reduce costs by enabling network administrators to remotely turn off computers and monitors when they are not needed.

More than 3,800 computers had energy management software installed and implemented at DHS' offices in Chippewa Falls, De Pere, Eau Claire, Green Bay, Madison, Mauston, Milwaukee, Rhinelander, Union Grove, Waukesha, and Winnebago. Focus on Energy

awarded the department \$41,500 to help implement the project.

This software solution helps maximize energy savings without interfering with end-user productivity or desktop maintenance. This helped the DHS save an estimated 703,000 kilowatt-hours of electricity annually—enough energy to power 71 Wisconsin homes for a year. The DHS will also benefit from \$54,000 in yearly savings on its energy bills and has been able to maintain the high-performance and availability standards on its computers.

“It was really important for us to have the power-saving option,” said Joe Rueden, director of IT consolidation projects at the DHS. “The institutions we serve really wanted to become greener and control costs.”

The annual environmental benefits are equivalent to preventing 1,382 barrels of oil from being burned—eliminating the release of 1.1 million pounds of carbon dioxide (CO₂) into the atmosphere.

“Focus was very straightforward and flexible to work with,” Rueden explained. “It didn't take a lot of time to complete the paperwork and it gave us the extra incentive we needed to push forward and get the job done.”



SERVING UP COST-SAVING SOLUTIONS

Server virtualization saves Cogdell Spencer ERDMAN \$18,000 in annual energy costs

Cogdell Spencer ERDMAN, a fully integrated healthcare facilities company, received \$26,000 from Focus on Energy for completing an energy-efficient server virtualization project at its Madison data center.



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The power is within you.

Server virtualization reduces the need for multiple physical servers in an IT department by running multiple, independent operating systems on a single computer. In doing so, numerous servers which are each underutilized can be consolidated onto a much smaller number of highly utilized machines. Since a single underutilized server uses almost as much electricity as a server running many virtual machines, server virtualization substantially reduces energy consumption and operating costs.

Cogdell Spencer ERDMAN was able to virtualize 53 of its servers onto three host servers, saving more than 240,000 kilowatt-hours of electricity annually—enough energy to power 24 Wisconsin homes for a year. The data center will save \$18,000 on its energy bills each year and reduce its cooling requirements by having fewer servers—saving on the cost of cooling systems and the electricity to power them.

“At Cogdell Spencer ERDMAN, we challenge ourselves daily to be better, faster, smarter, and greener in delivering services to our customers,” said Patricia La Forge, vice president of information technology at Cogdell Spencer ERDMAN. “What guides our business practices clearly resonates within IT and in our pursuit of virtualized technologies. The benefits provide clear value to the business and IT—we’re better in executing day-to-day administration and delivering reliability; faster in responding to our growing software and storage needs; smarter when implementing new infrastructure to support our company; and absolutely greener when it comes to technology’s insatiable appetite for power and cooling.”

Not only do these upgrades save energy and money, but they’re also environmentally friendly. The annual environmental benefits are equivalent to offsetting 470 barrels of oil from being burned—preventing more than 407,000 pounds of carbon dioxide (CO₂) from being released into the atmosphere.



COOLING DOWN WITH WINTER WEATHER

Associated Bank finds innovative way to bank on winter temperatures at its Wisconsin data centers

Associated Bank found an innovative way to put the chill on its energy usage after it converted its two Wisconsin data centers from air-cooled systems to glycol “free cooling” systems. Focus on Energy awarded Associated Bank \$116,000 to help implement the projects.

The new systems allow the Green Bay and Stevens Point data centers free cooling options during the winter months. During the summer months, an electric compressor runs to help cool the glycol to keep the data centers cool. In the winter, the glycol stays cool on its own and the compressor doesn’t need to run as hard, if at all.

As the data centers’ volume grew, Associated Bank arrived at a point where it needed to add another cooling system to make sure its IT hardware wouldn’t overheat. The additional cooling system would increase the company’s electrical consumption and cost more to power. By adding the glycol systems, the data centers now only cool when needed, which not only saves on cooling costs but also allowed Associated Bank to reduce the size of the fans and motors needed to move the air at its data centers.

Compared to using a standard piece of equipment where a compressor must run continuously, Associated Bank is able to save more than 1.4 million kilowatt-hours of electricity annually—enough energy to power 150 Wisconsin homes for a year. The data centers will also benefit from an estimated \$115,000 savings on their energy bills each year.

“We anticipate the payback periods will be less than three years at our Green Bay location, and slightly over three years at our Stevens Point service center,” said Garry Dietrich, senior vice president and director of internal services at Associated Bank.

The annual environmental benefits are equivalent to offsetting 2,920 barrels of oil from being burned—preventing more than 2.5 million pounds of carbon dioxide (CO₂) from being released into the atmosphere.

UNLOCK THE POTENTIAL

Consider all the equipment that makes your IT systems possible. From hardware and software to lighting and HVAC to uninterruptible power supplies and power distribution units, there are several key components that consume energy.

Focus on Energy offers specialized support for IT departments and data centers throughout Wisconsin. Our team of experienced energy advisors can work with your organization to assess your facility’s energy use, find inefficiencies, and recommend solutions. You’ll receive valuable insight and advice to help maximize efficiency across your IT infrastructure and savings through planning, design, and best practices from a trusted third-party resource. Call **800.762.7077** or visit **focusonenergy.com** to get started today.

Focus on Energy works with eligible Wisconsin residents and businesses to install cost-effective energy efficiency and renewable energy projects. Focus information, resources, and financial incentives help to implement projects that otherwise would not be completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses manage rising energy costs, promote in-state economic development, protect our environment, and control the state’s growing demand for electricity and natural gas. For more information, call **800.762.7077** or visit **focusonenergy.com**.

