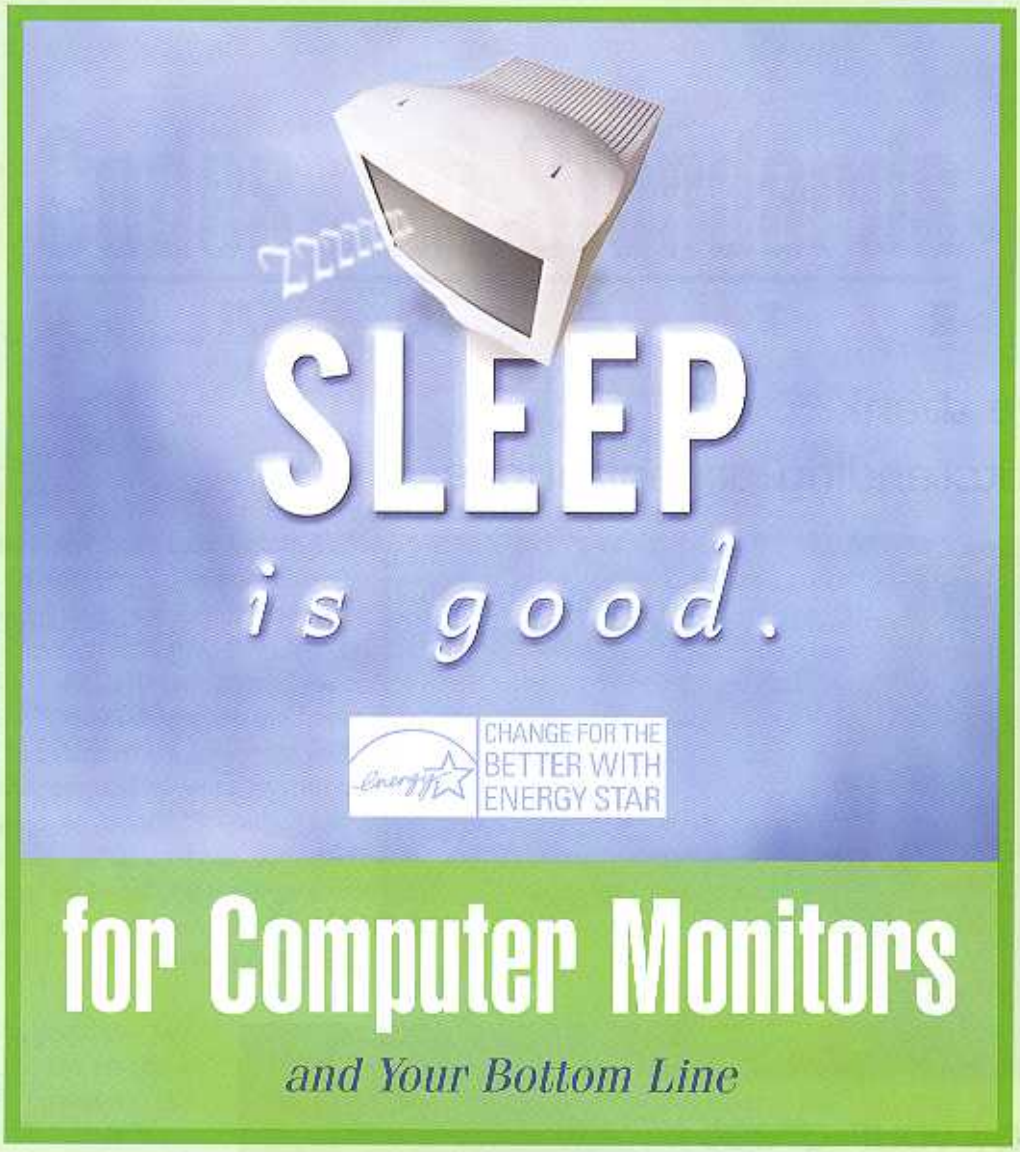

Energy wasted by computers and monitors costs U.S. organizations, such as hospitals and other healthcare facilities, about $1.5 billion every year. Computers and monitors use more electricity than all other forms office equipment combined. More than half of this energy waste could be prevented if the 60 percent of office computer monitors that are left on at night were turned off, and if the 40 percent of monitors that do not take advantage of their "power management" feature were enabled.

Money Isn't All You're Saving

Computer monitor power management, when enabled, allows monitors to go into a low-power sleep mode during periods of inactivity. (The monitor wakes up at the touch of a mouse or keypad.) Then, instead of paying utility bills for computer monitors that are kept on all day and night, hospitals pay for only the time that the computers are in use. For large healthcare systems, this single step can result in annual savings of thousands of kilowatt-hours and dollars while helping to protect the environment. A healthcare system, for

example, can expect to save 200,000-kilowatt hours (kWh) per year, or about $14,000 in energy bills (at 7 cents per kWh), for every 1000 computer monitors. This is equivalent to annually preventing almost 300,000 lbs of carbon dioxide emissions.

ENERGY STAR, a government-backed program helping businesses and individuals protect the environment through superior energy efficiency, offers hospitals, doctor's offices, and clinics an opportunity to eliminate costly waste through the "Million Monitor Drive" campaign. This campaign aims to activate the power management features on at least one million monitors nationwide every year. In the past two years, many leading businesses (e.g., Pitney Bowes, Cisco Systems, Ford Motor Company, General Electric), educational institutions (e.g., Harvard University, University of Pennsylvania, Penn State), and governments (e.g., Loudon County, Monterey County, Westchester County, City of Palo Alto), among others, joined the Million Monitor Drive. The Million Monitor Drive is projected to save 215 million kWh per year – enough energy to power over 170,000 households for one month.

To make implementation of power management simple, ENERGY STAR created EZ Save, software that allows IT professionals to activate entire networks of computer monitors from a central location, and EZ Wizard, a tool that helps individuals to enable their own desktop computer monitors. Both can be downloaded from the ENERGY STAR website for free at www.energystar.gov/powermanagement.

Interview with the Million Monitor Drive Director

The author recently sat down with Steve Ryan, Project Director of the Million Monitor Drive at EPA, to discuss monitor power management and to understand how hospitals might benefit.

Author: Healthcare facility managers have extremely busy schedules. Why should they devote some of their time to the ENERGY STAR Million Monitor Drive?

Ryan: Well, the short answer to your question is "easy money". Most monitors sold in the past six years have power management capabilities that just need to be turned on to gain the energy saving benefits. We know most organizations don't think to turn these features on when they're hooking up new computers. But IT departments, using our free software, can automatically activate these power saving features by devoting just a few hours of their time. Hospitals can then expect to save energy and money.

Author: Why focus on just monitors? ENERGY STAR qualified computers have power management capabilities, too. Wouldn't hospitals get even greater savings if they focused on these, as well?

Ryan: We know some organizations implementing computer power management in the past experienced problems with Internet and network connections. To avoid that, this effort focuses on activating monitor power management only. It's much safer and quicker to do. However, if hospitals have already enabled computer power management successfully, then I would encourage them to continue to use it.

Author: I've heard some are concerned that enabling power management features may affect downloading of files from the Internet. Is this true?

Sidebar 1

Activate Monitor Power Management Quickly and Easily

STEP 1 – Calculate your potential savings by using our easy on-line calculator. Look for it on the right-hand menu bar of www.energystar.gov/powermanagement.

STEP 2 – Discuss options to activate monitor power management organization-wide with IT staff. Call EPA'S ENERGY STAR hotline for additional information or help selecting the best option for your hospital.

STEP 3 – Inform employees. EPA can provide you with free educational materials – mouse pads, posters, fact sheets, Q&As, and tent cards for your cafeteria.

STEP 4 – Activate monitor power management. EPA provides technical support during activation.

STEP 5 – Take credit for good corporate citizenship. EPA helps you draft press releases, present awards, etc.

Sidebar 2

Penn State Saves a Lion's Share of Energy and Money

A survey of the Penn State Physical Plant office building found that only 4% of the building's 268 computer monitors were set to go to sleep after the desired period of 10 minutes of inactivity. Doug Donovan, Penn State's Energy Program Engineer, used ENERGY STAR EZ Save software to perform a survey of monitor power management status and then, with a few simple steps, enabled all 268 computer monitors for power management. Donovan is now expanding the program within Finance and Business, Penn State's main administrative unit. Extrapolating the results over the entire University Park campus, the university can expect to save about 740,000 kWh per year or more than $17,000 a year in energy bills at 2.3 cents/kWh energy costs. These savings are equivalent to preventing 780 tons of carbon dioxide emissions each year.

Ryan: Absolutely not. Monitor power management will not affect computer or network performance at all. It doesn't affect Internet downloads, nor does it affect receipt of email, faxes, or phone calls.

Author: In the mid-90s, we sometimes heard that using lighting controls would significantly shorten the useful life of lamps, which we knew to be untrue. Is there anything like this going around for power management? Does it affect the useful life of computers or monitors?

Ryan: Yes, in a positive way. When equipment powers down, it generates less heat, collects less dust, and reduces mechanical stress, which promotes a longer and more reliable life for the monitor.

Author: Once a computer monitor goes to "sleep", how long does it take to fully "wake up" again?

Ryan: In general, it takes about 10-20 seconds for the monitor to return to full power from its energy-saving low-power mode.

Author: How much energy does the sleep mode on ENERGY STAR qualified computers save

Ryan: A typical ENERGY STAR 17-inch CRT monitor uses about 70 watts when active and 4 watts when in "sleep" mode. So, the energy savings are going to be somewhere between $10 - $50 per monitor annually, depending upon computer use habits and electricity prices. If hospitals want a more precise figure, they can use EPA's EZ Save software to poll monitors on their network to determine each monitor's power settings. Then they can input the data along with their regional energy cost into a calculator to determine the savings more precisely.

Author: How successful has the Million Monitor Drive been to date?

Ryan: It's definitely exceeded our expectations. In 2002, we met our goal of one million monitors activated. For 2003, we're working to bring in another two million monitors and double the projected savings. We're excited to begin working with the healthcare sector and look forward to providing customer service to those that call the toll-free ENERGY STAR Hotline [1-888-STAR-YES].

Join the Million Monitor Drive

To join the Million Monitor Drive, your hospital pledges to activate monitor power management organization-wide. Please download the pledge form at www.energystar.gov/powermanagement, sign it, and return it to indicate your hospital's commitment to saving money and energy while protecting the environment.Once you have returned the pledge form, EPA will assist you with:

- Activating monitor power management on every computer in your organization with ENERGY STAR tools and services
- Marketing and educational materials to help inform employees
- Publicizing your participation through newsletters and press releases ASHE

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