Bringing Energy Efficiency to the Office Environment

Answers to some questions commonly asked about Xerox office equipment, Xerox's commitment to the environment, and tips on reducing energy consumption in a typical office.

In line with Xerox's core values of corporate responsibility and environmental stewardship, Xerox has been designing its products with energy-efficient features since the early 1990s. The company signed on as a U.S. Environmental Protection Agency ENERGY STAR® charter partner in 1993, and it has continued to make steady strides in reducing product energy consumption since then.

One hundred percent of the eligible products that Xerox introduced in 2002 met ENERGY STAR and the Environmental Choice EcoLogo criteria. In 2002 alone, Xerox calculates that Xerox ENERGY STAR-qualified products in customer locations enabled electricity savings of more than one million megawatt hours. That is enough electricity to light 880,000 homes in the U.S. for a year.

Here are answers to some questions commonly asked about Xerox office equipment, Xerox's commitment to the environment, and tips on reducing energy consumption in a typical office.

How can businesses lower usage of electricity in printers, copiers and multifunction equipment?

Actually, an office can realize substantial energy savings by simply replacing older equipment with new products. A Xerox CopyCentre C32/C40 Color digital copier, introduced in 2003, consumes up to 80 percent less electricity than the Xerox 5034 copier, which was introduced in 1990.

One of the most significant trends to reduce power consumption in the typical office is quite simple -- asset consolidation. Xerox studies show that the annual energy consumption of a Xerox WorkCentre or WorkCentre Pro multifunction system is approximately 40 percent less than the combined annual energy consumption of the individual ENERGY STAR copier, printer and fax products it replaces. And if the multifunction system replaces products that are *not* ENERGY STAR-qualified, energy savings can increase to 70 percent.

Another way to reduce overall electricity consumption is to use paper more efficiently. (The E.P.A. says it takes 10 times more energy to manufacture paper than to run it through office products.) Duplexing, printing multiple pages on one sheet (N-up printing), and using e-mail and scan-to-file options can reduce paper use and, hence, overall energy use.

Recently, Xerox analyzed a large bank's fleet of Xerox products. The bank's current set of ENERGY STAR-qualified office copiers and multifunction products enabled a 34 percent reduction in annual energy consumption when compared to equivalent non ENERGY STAR products. This translated to annual savings of 1.9 million kilowatt hours of electricity and $350,000 in electricity costs (at an electricity rate of $0.18 per kWh).

Some ENERGY STAR features have been said to cause customer inconvenience. What do you think needs to be done about these challenges?

During the mid-1990s, customer focus groups and surveys identified significant barriers to customer acceptance of ENERGY STAR features. Most often, we heard that customers were frustrated when they had to wait for equipment to recover from a low-power mode. Since that time we have worked to design ENERGY STAR features that are easy-to-use and user-adjustable. In addition, we have made design changes that result in fast recovery from low-power modes. These changes include fast warm-up fusing systems and smart print controllers that recognize a print job's arrival and "wake up" the print engine before interpreting page commands.

What is Xerox doing to design equipment and supplies with reusable parts that minimize the energy required to manufacture products?

This is an area where Xerox has pioneered, establishing an equipment remanufacture and parts reuse/recycle process in the early 1990s. Xerox has long recognized that parts reuse and recycling substantially reduces the amount of energy and raw materials required to manufacture equipment. In other words, much less energy is required to process a part for reuse, than to build a new part from scratch.

By designing its products for durability and ease of disassembly, Xerox can maximize the reuse/recycle potential of products and components that have reached end-of-life. All Xerox-designed product models available today have been developed with remanufacturing in mind. Reused/recycled parts can comprise up to 90 percent of a remanufactured machine's weight.

Xerox copy/print cartridges are also designed for return and reuse, and in 2002 more than 6.5 million cartridges and toner containers were returned by customers. Xerox also has developed processes for recapturing waste toner generated in customer locations from several families of Xerox office and production products. Waste toner returned to Xerox is reprocessed and used as an ingredient in the manufacture of new toner. This program saves Xerox nearly $1 million each year in avoided raw material costs, and has diverted over 6 million pounds of waste toner from landfills since 1998.

In 2002, we kept over 160 million pounds of material out of landfills as a result of our reuse and recycling programs for equipment and supplies.

THE DOCUMENT COMPANY
XEROX

What are some tips for conservation in an office?

Here are some ideas:

- Replace older products with new, more energy-efficient ones.
- Consolidate assets, replacing individual copiers, faxes and printers with multifunction systems. A workgroup of 100 people can save about $2,000 a year (assuming an electricity rate of $0.18 per kilowatt hour) in electricity costs by replacing eight workgroup printers, 24 personal printers and 12 fax machines with eight digital multifunction systems.
- Take advantage of power-saver features built into your systems.
- Use paper efficiently. Print duplex. Use recycled paper. Re-examine office processes – can you use electronic document storage and distribution software instead of printing hard copies? Use e-mail and scan-to-file options.
- Return supplies for reuse/recycling.
- Buy equipment with recycled and reused parts.

What does the future hold?

Clearly, the growing trend to replace separate printers, copiers and faxes with multifunction systems complements environmental initiatives on several levels.

First, it reduces electricity consumption by eliminating separate products. And manufacturers like Xerox will continue to design future versions of these multifunction systems to be increasingly energy efficient.

Perhaps more important for the long term is the potential for changing the way people manage documents and the information they contain. Our goal is also to develop integrated document management solutions combining Xerox equipment, software and expertise to allow customers to share information using fewer material and energy resources.

Today's Xerox WorkCentre and WorkCentre Pro systems' e-mail and scan-to-file capabilities replace the need to fax or mail hardcopy documents, reducing paper inventories and minimizing the energy required to deliver documents by air or ground transportation. Xerox software solutions such as DocuShare and DigiPath give customers the ability to replace paper-based information with electronic processes and shift from a print-then-distribute model to a more energy-efficient distribute-then-print system.

For more information about Xerox's environmental initiatives, visit our web site: www.xerox.com/environment

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**ENERGY STAR and the ENERGY STAR mark are registered U.S. marks. As an ENERGY STAR Partner, Xerox has determined that the products identified above as ENERGY STAR-qualified models meet the ENERGY STAR guidelines for energy efficiency.*

Revised: 03/2004