CIT's Green Initiatives

We put a lot of thought into what we buy, what we use, what we sell, and how we can recycle. We are environmentally conscious. We strive to be GREEN.

ENERGY STAR | EPEAT | 30% PCW | 20% | SFI | RoHS

Quick Facts

- We re-use computers
- We recycle computers and other electronics
- We recycle batteries and ink cartridges
- We return toner cartridges to be refurbished
- We use recyclable paper
- We save toner & paper by encouraging duplex printing
- We use and sell Energy Star® computers (Apple & HP) and printers
- We use LED and LCD monitors
- We use mail & other applications powered by Google
- We offer green products for sale in the Technology Store
- We actively seek products with green packaging materials
- Purchasing from Tech Store reduces carbon footprint
- We maximize the "greenness" of our infrastructure

We re-use computers

We re-use as many computers are we can, before we send them to be recycled. Computers generally have a life cycle of 3-4 years, which is when we normally replace office and lab computers. Instead of immediately disposing of used computers, we look to see if they can be refurbished and re-used as "trickle-downs" for temporary, one-year faculty, or as computers to be used by student workers in offices. If we've had any requests from charitable organizations, we try to meet those, as well.

We recycle computers and other electronics

We use a company based out of Akron, Ohio, to recycle computers and other electronic equipment, including printers, scanners, monitors, keyboards, mice, etc. This is a free service that allows us to recycle College-owned computers and equipment, as well materials individually owned by persons affiliated with the College, who can drop off their items at CIT for pickup.

We recycle batteries and ink cartridges

We provide recycling bins for constituents to drop off old batteries (AA, AAA, C, D, 9V, etc.) and used ink cartridges. We then provide this to our recycler for disposal.

Reduce, Reuse, Recycle

Reducing our footprint and our waste, reusing computers and other equipment to the greatest extent possible, and recycling computers, peripherals, paper, ink and toner, batteries, and more

We return toner cartridges to be refurbished

We buy already remanufactured toner – Sustainable Earth by Staples – and we buy HP LaserJet toner cartridges that are sent back to the company and refurbished.

We use recyclable paper

We buy printer/copier paper that is a percentage Post Consumer Waste (30% PCW) and is certified SFI. It is also 100% recyclable.

We save toner and paper by encouraging the duplex printing

All computer lab systems are set up to print duplex as the default. To better accommodate this, we use 99% jam free paper.

We use and sell Energy Star® computers (Apple and HP) and printers

For faculty and staff desktop and laptop computers, and in our labs throughout campus, we use Energy Star® compliant computers and printers. We standardize on Apple Macintosh computers and HP Windows computers. We also standardize on HP printers in labs and for departments.

Apple computers: Apple strongly promotes environmental consciousness. Every product they sell exceeds the energy guidelines for the Energy Star® specification. They have worked to eliminate toxic substance in their products. Every display Apple has mercury-free LED backlighting and arsenic-free glass. Apple uses materials that can later be recycled, such aluminum computer bodies. Apple is also an industry leader in developing product packaging that's slim and lightweight, yet protective, to reduce materials and waste, and to help reduce the emissions produced in transportation, Since Apple designs both its hardware and software, it is able to focus on conservation of power in its systems. The Mac mini, for example, is purported to use less power than a single 13w CFL light bulb.

HP Computers and Printers: HP ranked highest in electronic companies and placed fifth overall in *The Best Global Green Brands 2011*. Through its Design For Environment (DfE) program, HP focuses design of its products on (1) energy efficiency – reduce the energy needed to manufacture and use its products, (2) materials used - reduce the amount of materials used in products and develop materials that have less environmental impact and more value at end-of-life, and (3) design for recyclability - design equipment that is easier to upgrade and/or recycle. HP computers and printers are Energy Star® compliant and many of their products meet EPEAT™ Gold status.

We Use LED and LCD monitors

No CRT displays are still in use or provided by CIT on campus. All Apple computers – desktops and laptops - use LED backlighting. HP laptops use LED backlighting. All HP Business/Education monitors are rated either EPEAT™ Silver or Gold. LCD technology provides up to 70% power savings and up to twice the lifespan of CRT monitors. LED monitors require the least amount of power to operate.

CRT Monitor   LCD Monitor

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We use mail and other applications powered by Google

Using the Google cloud allows us to use Google servers vs our own, thus, also using their high-efficiency facilities. Google uses custom, high-efficiency servers, specifically designed to host cloud services. Google uses custom, high-efficiency power supplies, more than 90% efficient. Google's infrastructure is also designed so their software performs with maximum efficiency on the servers they develop without unnecessary additional features. Additionally, Google's cloud services are all carbon-neutral. Since 2007, they have used energy efficient improvements, green power and carbon offsets to bring their footprint to zero. It is estimated the annual carbon footprint of a Gmail user is about 1/80th that of a small organization using locally-hosted email servers[1].

[1]Using EPA US average emissions intensity for locally hosted email servers and Google's calculated emissions intensity for its operations; from *Google's Green Computing: Efficiency at Scale*

We offer green products for sale in the Technology Store

We try to offer as many "green" products as possible in the Oberlin College Technology Store. We offer STM® *Born to Be Green* laptop bags, which use hangtags printed on recycled material with biodegradable coatings, are shipped in biodegradable plastic bags, and which don't use any internal stuffing. We offer iKlear® for cleaning displays. It uses a non-toxic, eco-friendly solution and re-usable cloths. We offer keyboard-cleaning spray that is considered ozone-friendly. We sell copier/printer paper that is a Sustainable North American product.

We actively seek products with green packaging materials

We more than one company provides the product we wish to offer, we prefer to acquire the one that uses the most eco-friendly materials. We prefer polybags to clamshell or blister packs due to the decreased packaging material, and we seek products with polybags that are RoHS compliant.

Purchasing from the Tech Store reduces carbon footprint

As opposed to buying individually online, purchases of computers, printers, software, etc., made from the Technology Store can help reduce the carbon footprint. This is because the Store orders in bulk, so one shipment can serve many users' needs and, thus, expend less fossil fuel and cost less in energy consumption.

We maximize the "greenness" of our infrastructure

We use our main data center to house servers used throughout campus. This centralized approach means we only need one climate-controlled facility and one generator system to keep our main servers functional.

In addition, we have been moving more toward virtualized servers – multiple "virtual" servers hosted on one single computer. Instead of using several smaller physical servers, each to support it's own function, we can use one larger, physical, yet "virtualized" server to support many functions. Thus, the amount of energy required is reduced. For example, we now use one server, virtualized, to act as seven subsystems, performing functions such as required mail relays, file transfers, EasyProxy, and Blackboard snapshot. We have another virtual server that provides software and licensing to many different labs, a process that had required several individual servers, then individual physical blades on one server.

The virtualization process reduces our energy usage. In addition, it leads to less required manufacturing and less disposal.

Additional green initiatives:

- Downloading software applications vs. having physical CDs/DVDs shipped
    - Apple has moved to this process for all their software
- Use centralized imaging servers for downloading of images to desktop and laptop systems
    - Means we don't have to keep several different image drives available
        - Less power consumption
        - Less manufacturing and disposal required
- Fewer paper manuals
    - More and more technology manuals & help for specific products is provided online
- Increased use of Web and Wiki for documentation
- Use of online lynda.com training process
    - Physical, paper handouts not required
    - Users use their own computers, instead of having to use separate training facilities
        - Reduces energy use – computers, lights, projectors, etc.
- Moving toward classroom technology systems that require less power
    - Serial-controlled audio amplifiers that use off-mode (turn on and off with the system) vs. using standby functionality
- Installed an upgraded UPS system in the main data center
    - Allows systems to remain operational until we can safely shut them down
        - Less risk of damage to server disks and peripherals, as well as data and software
- As of 03 October 2011, offering recycling for CDs and VHS tapes