

SustainVU

V A N D E R B I L T

Sustainable Department Greening Guide

**Tips for reducing your environmental impact
around the office**

Sustainability is achieved when the needs of the present population are met without compromising the ability of future generations to meet their own needs. To achieve sustainability, we should examine the impact that our activities have on the environment and implement ways to reduce our consumption of resources and our generation of waste. In keeping with the efforts of Vanderbilt to become a more sustainable campus, the Sustainability and Environmental Management Office has developed this **Sustainable Department Greening Guide** in order to provide administrators and others interested in greening their offices, departments, or schools with the tools they need to lessen the environmental impact of their day-to-day operations.

Reduce, Reuse, Recycle

The basis of environmental sustainability rests on the concept of Reduce, Reuse, and Recycle, in that order. The first step in “greening” is to **REDUCE**. This means making a conscious effort to lessen your consumption of resources and products on a daily basis, whether this is using a reusable coffee mug instead of a disposable one or printing double-sided copies to save paper when emailing will not suffice. Reducing your consumption of resources also reduces the waste you produce.



Reducing waste means looking for products that you can easily **REUSE**, which is the second step. You might repurpose items yourself, or you can look for places to donate unwanted products so others can reuse them.

To close the waste loop, you should attempt to **RECYCLE** any product that cannot be reused.

- ◆ **All of Vanderbilt recycles** cardboard, [confidential paper](#), [computers and electronics waste \(e-waste\)](#), [ink and toner cartridges](#), [small batteries](#), and [pens and mechanical pencils](#).
- ◆ [Vanderbilt campus](#) recycles all plastic containers, mixed paper, aluminum and glass (drop-off only at Peabody Recycling Center on Appleton Drive and other select locations).
- ◆ [Vanderbilt School of Medicine \(SOM\)](#) and [Vanderbilt Children’s Hospital \(VCH\) Doctors Office Tower \(DOT\)](#) recycle all plastic containers, aluminum, and mixed paper.
- ◆ Other Vanderbilt University Medical Center areas, including [Vanderbilt University Hospital \(VUH\)](#), [Vanderbilt Children’s Hospital \(VCH\)](#), [One Hundred Oaks](#), [Medical Center East](#), and [The Vanderbilt Clinic \(TVC\)](#), recycle all plastic containers and aluminum.

Finally, it is important complete the recycling loop by purchasing recycled products whenever possible. You know that a product has recycled content when you see the

recycling chasing arrows in a product catalog or online. The higher the percentage of recycled content, the more you are doing for the environment!

More specific information pertaining to how your office, department, or school can reduce waste, conserve energy and water, purchase green products, and commute environmentally is discussed below.

Reduce, Reuse, Recycle

REDUCE

Paper is the largest component of the solid waste stream in the United States by weight, comprising about 40% of total waste. Paper is also a significant portion of most departments' budgets. The amount of paper used in office settings can be reduced by using less paper to begin with, reusing where appropriate, and recycling. Visit the SustainVU [Paper Reduction page](#) for an extensive list of ways to reduce paper consumption. Specific steps you can take to reduce paper usage include:



- ◆ **Communicate electronically** and create hard copies only when needed. Edit documents on screen using the “track changes” function and bookmark websites instead of printing to reduce paper usage.
- ◆ Change all printers, copiers, and faxes to their **double-sided printing** settings.

Did you know? *Double sided printing can reduce your department's paper budget by 30-50%. A small amount of these cost savings could then be used to purchase **paper with a recycled content of 30-100%**. In an office setting, implementing standard double sided printing combined with the use of recycled content paper is one of the most important things you can do for the environment.*

- ◆ Consider electronic magazine subscriptions and books whenever possible, or consider purchasing an Amazon Kindle or similar e-reader. Small, compact laptops with internet access capabilities are becoming more affordable, too.
- ◆ Use your email Inbox as a filing system and set up “storage” folders within your Inbox. If your email account has limited storage space, and you find that storing emails and documents in your Inbox is not feasible, you can arrange for emails and documents to be saved periodically to your computer. In Outlook, this function is called Auto Archive.
- ◆ If you need to take a file to a location outside of your office or to work on a document at home, email it to yourself from work or use a memory stick, mp3 player, iPod, or an external hard drive for transporting your files.
- ◆ A networked system and shared drive space within your department or area allows individuals to share documents instead of emailing them to each other with the added benefit back up on Vandy's network. Offices that handle

confidential and sensitive information can arrange to have different levels of access for shared drive areas, ensuring that only people who have clearance can access certain information. ITS administrators typically set-up network access and shared drive space.

- ◆ Secure on-line file sharing, review, and document retention can be a reality by obtaining a [Microsoft SharePoint site via ITS](#), which are available to VU entities at no cost!
- ◆ While online file sharing program like Google Docs allow to modify and share files from multiple locations, PLEASE USE CAUTION, because much of the information Vanderbilt handles is governed by privacy laws like [FERPA](#) and [HIPPA](#).
- ◆ Different filing styles work for different people. One suggestion might be to file by project or major area of responsibility, then by year. If you manage several people, you might want to create a folder for each person and their work.
- ◆ Wheeled bags make carrying a laptop around much easier, allowing you to take notes on your laptop that can be stored on the hard drive. This keeps the user from handling lots of paper.



Other waste products besides paper can be reduced by doing things such as:

- ◆ Only buying what you need.
- ◆ Providing reusable mugs and cups instead of using disposable water bottles.
- ◆ Installing battery re-chargers and investing in rechargeable batteries.
- ◆ Considering renting or sharing infrequently used products.

REUSE

Get creative when it comes to reusing materials. Items like plastic bags and packaging can have a variety of uses once they serve their original purpose. Single sided printed paper can be reused to print drafts or for scratch paper or shredded and used as packing material. Easy ways to reuse magazines and books are to buy only one subscription or one book for your department and pass it around. Unwanted magazines and books can also be donated to libraries or local schools to be reread.

RECYCLE

Many materials, including **paper, cans, newspapers, cardboard, and plastic** can all be recycled. **DO NOT RECYCLE ANY FOOD-CONTAMINATED MATERIAL, RESTROOM WASTE, MEDICAL ITEMS, PLASTIC BAGS, OR STYROFOAM.**

- ◆ [Vanderbilt campus](#) recycles all plastic containers, mixed paper, aluminum and glass. (Glass is drop-off only at Peabody Recycling Center on Appleton Drive and other select locations).
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If your office does not currently recycle, follow these steps to implement a program:

- ◆ If you are in a VU residence house, campus administrative or academic building contact the Campus Recycling Coordinator at 615.343.2784 or recycle@vanderbilt.edu.
- ◆ If you are in a building that is not owned by Vanderbilt but is contracted through VU Real Estate Property Manager, contact Benji Rust at 615.343.4912.
- ◆ If you are in a VUMC building and part of the School of Medicine, contact Daris Merriweather at 615.322.6107.
- ◆ If you are in any other VUMC building that is not part of the School of Medicine, contact the Sustainability and Environmental Management Office at 615.322.2057 or SustainVU@vanderbilt.edu.
- ◆ Anyone not included can contact your building manager, contract directly with a recycling company (such as [RockTenn](#), [QRS](#), or [EarthSavers](#)) or install recycling containers yourself and transport them to the VU Recycling Center located on Appleton Drive between the Peabody maintenance building and the Commons Center.



Used computers and electronics should be disposed of via the **Vanderbilt Electronics Recycling Program**. [Vanderbilt Procurement Policies and Procedures for Departments](#) require that all university-owned equipment, capital or non-capital, be processed through VUMC Surplus Services. Visit the [Computers & Electronics Recycling page](#) for more information and

instructions. Never throw electronics or computers into the dumpster- U.S. regulations forbid it because these materials contain chemicals and heavy metals that are harmful to humans and the environment.

Ink and toner cartridges for your printer, fax, or copier and cell phones and PDAs contain chemicals that could be hazardous to the environment if landfilled and left to leak into the soil and groundwater. Additionally, the materials used for the casings (plastic, metals) do not readily biodegrade. Thus, it is preferable to recycle these materials to keep them out of landfills. Procurement, Vanderbilt Valet, Guy Brown, and the VU Sustainability and Environmental Management Office (SEMO) are pleased to announce the availability of **recycling for ink/toner cartridges and cell phones at Vanderbilt University**. Visit the [Ink & Toner Cartridge Recycling page](#) for more information and instructions.

Small batteries, including normal alkaline batteries (such as AA, AAA, C, D, etc.) and rechargeable batteries (such as nickel-cadmium, lithium ion, and nickel-metal hydride

batteries, from cell phones, PDAs, and portable equipment), generated from work-related activities should be recycled through the Vanderbilt battery recycling program. Visit the [Battery Recycling page](#) for more information and instructions.

Visit the SustainVU [Waste and Recycling page](#) for more information on recycling opportunities available at Vanderbilt University and Medical Center.

Green Purchasing

According to the United States Government, **Environmentally Preferable Purchasing (EPP)** refers to the procurement of goods and services that have a reduced effect on human health and the environment as compared to competing goods and services serving the same purpose. Since each department or school at Vanderbilt buys its own supplies and equipment, you can have a direct, significant impact on the local community and the environment by greening your department or school's purchasing.



OFFICE SUPPLIES

- ◆ Buy paper products with at least 30% postconsumer recycled content.
 - 30% recycled content uses 13% **less energy** and produces 15% **less solid waste**.
 - These products are already available through Vanderbilt's E-Procurement at no quality difference.
 - ASPEN™ printer and copier paper line from Boise comes in 30%, 50%, and 100% recycled content and color varieties.
 - Earth-friendlier cups are available from American Paper and Twine (APT) through E-Procurement.
 - **Dixie's Insulair Hot/Cold Cups** are made of 25% post-consumer recycled paper material with a 100% post-consumer recycled built-in sleeve.
 - **Solo's "Bare" Hot/Cold Cups** are made of at least 10% post-consumer recycled paper material and come in sizes 4 to 20 ounces.
 - **Solo's "Bare" Plastic (#1 resin) cup** is made of 20% recycled PET.
- ◆ For more options on earth friendlier product choices, please contact Jenny Kirby at American Paper and Twine at 615-350-9050 ext. 2250, or at jkirby@aptcommerce.com.
- ◆ An alternative to buying recycled content paper is ordering tree-free paper from [Mammoth Office Products](#) or through E-Procurement. TreeFrog paper is made from bagasse fibers, a by-product of sugar cane processing.
- ◆ When buying office supplies such as glue or liquid paper, choose **non-toxic** varieties.
- ◆ Purchase **recycled or remanufactured laser toner and ink jet cartridges** from Guy Brown through Vanderbilt's E-Procurement.

- Recycled cartridges have been tested and page yields are equal to non-recycled varieties.
- Remanufactured cartridges are produced from old printer cartridge parts that have been reused or repaired and examined, washed and tested individually to meet or exceed the cartridge manufacturer quality standards.
- It's better to re-use parts of old printer cartridges than to create new waste that ends up in landfills or incinerators.
- Guy Brown is a 100% minority-owned and certified Small Disadvantaged Business and donates a portion of the proceeds from recycling ink/toner cartridges and cell phones to Monroe Carell Jr. Children's Hospital at Vanderbilt, the Susan Gray School, and the Work Life Connections Employee Hardship Fund on behalf of the Medical Center and University Staff Advisory Councils.

Did you know? *Approximately 20-30% of all sold printer cartridges worldwide are made from a recycled cartridge.*

ELECTRONICS AND EQUIPMENT

- ◆ Prior to purchasing any new equipment, think about whether or not it is truly necessary. No matter how energy efficient an item may be, its production and use require energy and resource consumption.
- ◆ When purchasing any electronics or equipment, look for the **Energy Star** or **EPEAT** rating which ensures that the product uses energy as efficiently as possible. Specifically, look for products designated by EnergyStar as **Most Efficient**. A product which has received this ranking is among the top 5% of energy efficient products in its category!
- ◆ Consider buying **liquid crystal display (LCD) flat panel** monitors for your desktop computers and TVs. LCD flat panels use 30% less energy than cathode ray tube (CRT) displays and contain chemicals which are less harmful to the environment. Look for TVs and monitors with light-emitting diode (LED) screens, as they use less energy. Seek televisions with a standby or sleep mode consumption of under one watt, an ambient light sensor which adjusts backlighting to the needs of a given room, and that are made and packaged with recycled content material. Visit the CNET Energy Efficiency Guides for [televisions](#) and [monitors](#) for more information.
- ◆ Instead of using the elevator, take the stairs. You'll save energy and get some exercise!



REMODELING

- ◆ When having new carpet installed, choose carpet with **high postconsumer recycled content**. Some manufacturers that offer these carpets are Shaw and Interface.
- ◆ Consider installing **carpet tiles** instead of traditional carpet. Carpet tiles can be more economical and reduce waste because single tiles can be replaced when damaged or worn.
- ◆ Choose carpet and paints with **low or No Volatile Organic Compounds** (low or no-VOC).
- ◆ When purchasing wood furniture or wood flooring, look for wood that is FSC (Forest Stewardship Council) certified, meaning it came from a **sustainably harvested forest**.
- ◆ Purchase plastic and metal modular furniture that is **high in postconsumer recycled content** and easily disassembled. Products that can be taken apart and reconfigured are more easily repaired, reduce waste by being reused, and can be recycled.
- ◆ Check out **surplus and swap opportunities** here at Vanderbilt. The Plant Services group out of the Medical Center has a [Surplus Equipment Store](#), which allows the Vanderbilt community and the public to purchase surplus items from their warehouse. [Vandy FreeSwap](#) is a website for Vanderbilt students, faculty and staff to give away (and get) free, usable, unwanted items instead of disposing of them in landfills.

Visit the SustainVU [Procurement page](#) for more information on green purchasing.

Energy Consumption

LIGHTING

Lighting accounts for about 22% of the energy use at a typical university, according to the US Department of Energy (DOE). Properly designed and implemented daylighting strategies can reduce this number by 50 to 80%. Some tips to reducing your energy consumption through lighting changes include:

- ◆ **TURN OFF YOUR LIGHTS** when you leave a room, including common areas. The average office is occupied only 8 of 24 hours (33%); classrooms even less. You might consider assigning the last person to leave the office the job of turning off the lights in all common areas, such as break rooms, hallways, and workrooms.
- ◆ Use Energy Star **Compact Fluorescent Light** (CFLs) bulbs wherever possible. [Energy Star rated CFLs](#) use 75% less energy than normal light bulbs and last 6-10 times longer.
- ◆ Open shades to make use of natural lighting.



ELECTRONICS AND EQUIPMENT

According to the DOE, electronics and other equipment account for about 20% of energy usage at a typical university. This includes computers, monitors, electronic office equipment, and lab equipment.



- ◆ Program computer, fax/copy machines, and printers to their **energy-saving settings** including “sleep mode.” A screen saver on the monitor **does not** save energy. See [instructions](#) on how to do this or ask your LAN manager or ITS.

Did you know? *The typical desktop computer uses 60 to 250 watts of energy for each hour it is fully powered. In sleep/standby mode this decreases to 1 to 6 watts for each hour it is in sleep mode.*

- ◆ When computers are not going to be in use for more than a few hours, **turn them off** altogether if allowed. If your department or school requires that you leave the CPU on overnight for updates and backups, you should program your computer with sleep mode settings and turn off the monitor.

Did you know? *The typical 17” CRT monitor uses 80 watts of energy for each hour it is fully powered while a typical 17” LCD uses 35 watts for each hour it is fully powered.*

- ◆ Whenever possible, unplug electronics from the wall when not in use. While plugged in, electronics still drain a small amount of energy even when turned off (typically called “vampire” loads). A surge protector not only protects your electronics but provides an easy way to unplug them all at once with the flip of a switch.

HEATING AND AIR CONDITIONING



About 40%, the largest percentage, of the energy used on campus goes towards heating and cooling indoor spaces. Much of Vanderbilt’s campus is heated with steam and cooled with chilled water, while other buildings directly use electricity. Our energy usage spikes during summer months from extensive air conditioning usage. Some suggestions for curbing our heating and air conditioning energy usage are to:

- ◆ Encourage your students, staff and faculty to **dress for the season**, particularly in layers that can help moderate personal temperature, and accept more seasonal indoor temperature settings.
- ◆ If you can control your thermostat, suggested settings for an office, lab or classroom thermostat are **75 degrees F in summer and 68-70 degrees F in winter**.
- ◆ If you can control your thermostat, adjust it more radically when everyone leaves for the day since the typical office is only occupied 33% of each day. Two easy ways to do this are to either assign the duty of adjusting the thermostat to the last person that usually leaves the area each day or invest in programmable thermostats for your area. For more information, contact [Plant Operations](#)

(615.344.9615) if you are located on main campus or [Plant Services](#) (615.322.2041) if you are located in a VUMC facility.

- ◆ If you do not control the thermostat for your area and think the indoor temperature seems extremely cold or hot, call Plant Operations (615.344.9675) for those on main campus and Plant Services (615.322.2041) for those in VUMC and alert them to the temperature extreme.

For more information on how to conserve energy at Vanderbilt, visit the [ThinkOne](#) website.

Water Consumption

Each year, Vanderbilt consumes over 800 million gallons of water. That is the same amount of water consumed by about 13,000 households in Nashville. To do your part to save water:



- ◆ Turn off the water when it is not in use.
- ◆ Report and repair water leaks, broken toilets, and dripping faucets. On campus, contact Plant Operations at 615.344.9675; in the medical center, contact Plant Services at 615.322.2041.
- ◆ Wash full, rather than partial, loads of labware and dishes.

Visit the SustainVU [Water page](#) for more information on water consumption and conservation.

Commuting and Transportation

Vanderbilt has a campus community of 35,000, making us larger than many towns in Tennessee. We have 23,000 staff and faculty that commute to work each day, the average roundtrip commute amounting to 48 miles. The impact our commuters have on the air quality in Middle TN is substantial, not to mention the parking situation on campus, and how congested the Vanderbilt area has become in recent years. Many employees are frustrated by traffic when they arrive at work each day, and recent inflations in gas prices have a direct financial impact on those that drive to campus. The cost to create and maintain parking on campus is also significant!



Encourage students, faculty and staff in your department or office to think about how they travel to and from campus and look for ways to walk, bike, carpool, vanpool or take mass transit. Taking advantage of commuter benefits not only improves the environment, but usually improves the standard of living of the commuter and saves significant amounts of money. Visit the SustainVU [Alternative Transportation and Commuter Choice Programs page](#) for more details concerning the programs described below. Some specific ways that you could encourage your school or departmental members to improve their commute are:

- ◆ If possible, **ride a bike or walk** to campus to reduce emissions entirely and exercise at the same time. This includes going to and from lunch, or meetings on campus.
- ◆ **Take low-cost public transportation.**
 - Vanderbilt offers all faculty, staff and graduate students the **MTA “Free Ride to Work Program”** where Vanderbilt will pay the bus fare for any Vanderbilt employee or graduate student. Just swipe your ID badge when you board the bus. All bus transfers are free as well. The average MTA Nashville bus has 40 seats, which means the potential for 40 less cars on the road with each full bus.
 - Vanderbilt also significantly subsidizes the fare for the **Music City Star Commuter Train** and **Regional/Inter-City Bus Service** through RTA.
- ◆ If you live outside the city or cannot take public transportation, **consider carpooling or vanpooling.** Vanderbilt has invested in its own ride match software system, which facilitates the identification of potential carpool and vanpool partners in the Vanderbilt community (anyone with a Vanderbilt email address). This program matches people from similar general locations who wish to share a ride to Vanderbilt.
- ◆ Sign-up for one of Vanderbilt’s car sharing programs: **Zipcar** or **WeCar**. This is a great option for commuters who do not drive to work but who have engagements off-campus during the workday.
- ◆ If you must drive, make sure car tires are properly inflated for **improved gas mileage.**

Other ideas for reducing commuting and transportation impacts of your department or office include:

- ◆ Use the **Commodore Concierge** to run your errands. The Commodore Concierge transports dry cleaning, groceries, etc. for a number of people at once, thereby reducing the number of single trips needed. Locations at Vanderbilt include:
 - Medical Center North (MCN) main lobby (615.343.8254)
 - Monroe Carell Jr. Children's Hospital at Vanderbilt, second floor off sky-bridge from South Garage Suite 220 (615.936.8253)
 - One Hundred Oaks (OHO) Suite 22115 (615.936.7977)
- ◆ Consider taking advantage of the [VU telecommuting and flexible work shift policy](#) when possible. Both options are allowed by Vanderbilt Human Resources and can not only improve air quality by keeping cars from being on the road in peak rush hours but can also significantly improve employee morale, productivity, recruitment and retention.
- ◆ Need to transport something in the Downtown, West End or Green Hills area quickly? Instead of using FedEx, try [Green Fleet Messengers](#), a Nashville bicycle courier service, to avoid creation of harmful air pollutants and greenhouse gas emissions. Call 615.463.0602 for more information.

Thank you for your interest in creating a “greener” Vanderbilt.

Check out SustainVU’s other [Sustainability Guides](#).

For more information on any of the greening suggestions above or general sustainability information, please visit www.vanderbilt.edu/SustainVU.

If you would like to receive regular emails from SustainVU, send an email to sustainvu@vanderbilt.edu with the phrase “subscribe sustainvu” in the subject line.

For additional assistance with greening your department or school, please contact the Sustainability and Environmental Management Office at 615.322.2057 or sustainvu@vanderbilt.edu.