

Simple Ways To Green Your Organization

**Laura L. Barnes, Librarian
University of Illinois at Urbana-Champaign
Institute of Natural Resource Sustainability
Illinois Sustainable Technology Center
lbarnes@istc.illinois.edu**



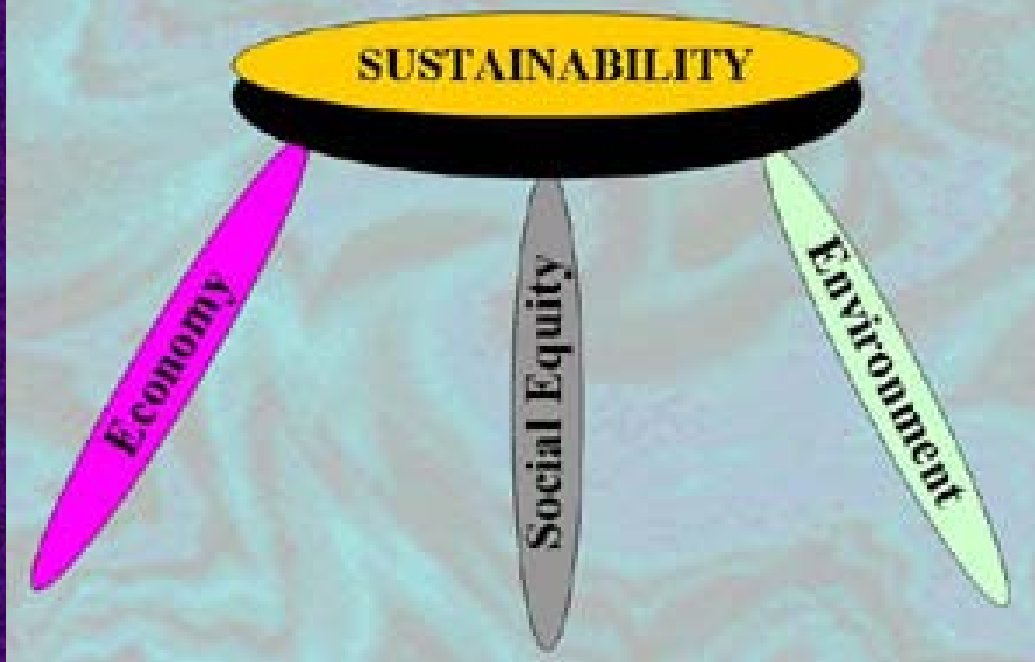
**Institute of Natural Resource Sustainability
Illinois Sustainable Technology Center**

What is sustainability?



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Three-Legged Stool



Why is it important?



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So I can have clean air and water.



“Pollution is nothing but the resources we are not harvesting. We allow them to disperse because we've been ignorant of their value.” – R. Buckminster Fuller

“I long to accomplish a great and noble task, but it is my chief duty to accomplish small tasks as if they are great and noble.” – Helen Keller



Growing a Green Organization

Getting Started

- ❖ Gain company/management support
 - ❖ Get it in writing if you can
- ❖ Form your team
 - ❖ Group of employees dedicated to promoting waste reduction, recycling, and responsible purchasing in the workplace
 - ❖ Size of the team should relate to the size of the organization and be representative of as many departments or operations as possible
- ❖ Choose a coordinator
 - ❖ Leader(s) should oversee the program, and act as the liaison between the maintenance staff, management, employees and the recycling vendor
- ❖ Set preliminary goals
 - ❖ Begin with simple projects that have a relatively high likelihood of success

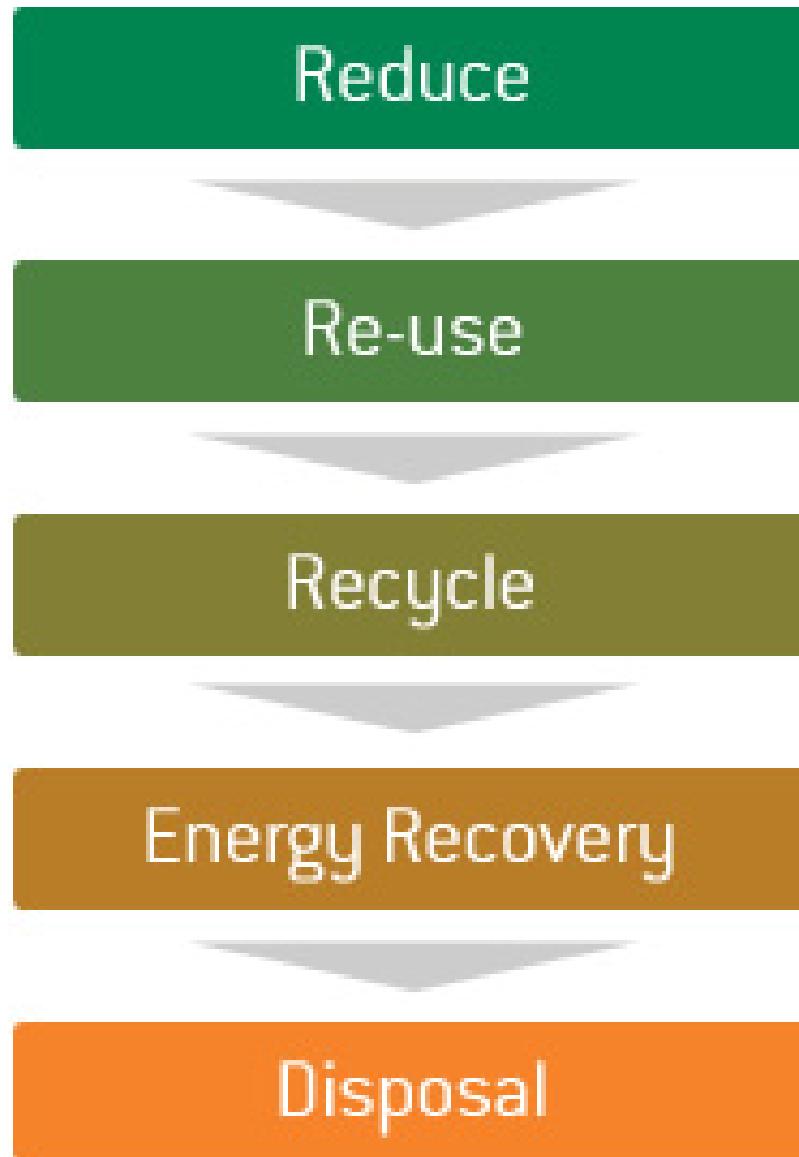


Get to Know Your Waste

- ❖ Obtain your waste disposal records
 - ❖ Contact trash collector to obtain your monthly disposal services invoices
- ❖ Walk through your organization
 - ❖ Learn where trash is coming from and where it ends up
 - ❖ Plan the walkthrough for a time when garbage bins and dumpsters are full
- ❖ Consider conducting a waste characterization audit
 - ❖ Two options
 - ❖ Estimate waste types and amounts by conducting a visual survey of individual waste receptacles
 - ❖ Sample and weigh the building's wastes (AKA dumpster diving)



The Waste Hierarchy



Best environmental option



Worst environmental option

Establish a Recycling Program

- ❖ Decide what materials to recycle
- ❖ Find recycling centers/service providers
- ❖ Purchase and place your receptacles
- ❖ Coordinate collection/transportation
- ❖ Take a second look at purchasing
 - ❖ Implement a green purchasing program
- ❖ Kick off the program
- ❖ Educate employees



Keep It Going

- ❖ Track and record progress
- ❖ Keep employees informed and involved
- ❖ Market your success
 - ❖ Tell your employees and your clients
 - ❖ Apply for an Illinois Governor's Sustainability Award --
http://istc.illinois.edu/info/govs_awards.cfm
- ❖ Go above and beyond
- ❖ Get help if needed
 - ❖ ISTC Technical Assistance program
 - ❖ EPA's WasteWise program



**Think ahead to avoid
derailment**



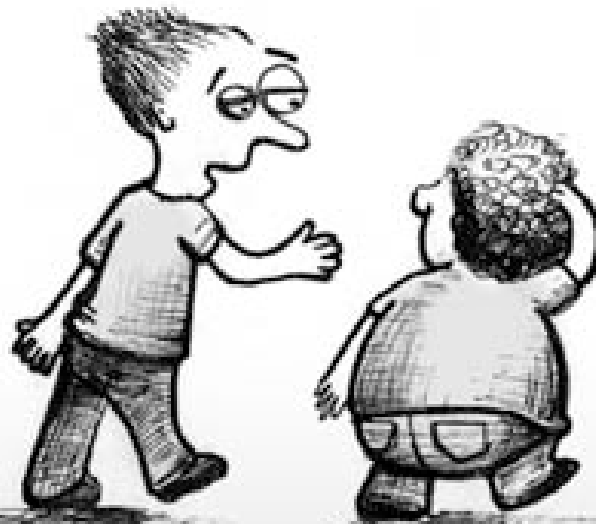


**Open the door to other
opportunities**

Switch to more
energy efficient lights
and ballasts



Do you really think
we'll save any money
with those new
EFFICIENT lightbulbs?



I dunno.
Did we turn
off the lights?

Replace exit signs





**69%-97% of total computer energy use occurs during
idle time – Natural Resources Defense Council**

Did You Know?

- ❖ Cost of running a desktop computer 24/7/365 = \$236.56/year (per computer system)
- ❖ Cost of running a desktop computer 8 hours/day, 5 days/week = \$56.16/year (per computer system)
- ❖ You save \$180.40 per computer/year when you shut it down at the end of each day.
- ❖ Replacing CRT monitors with LCDs saves an additional \$17.27/year (per monitor), assuming you shut your computer down when you leave at the end of the day.



ENERGY STAR Computer Power Management Savings Calculator

Instructions: Use this simple calculator to estimate typical savings from ENERGY STAR qualified computers and/or power management features. **(required fields in red)**

ENERGY STAR Qualified Computers and Monitors

Enter the number of ENERGY STAR qualified:	Desktop	Notebook
a) Computers used and/or to be used in place of standard computers	<input style="width: 80%;" type="text"/>	<input style="width: 80%;" type="text" value="-"/>
b) LCD monitors used and/or to be used in place of CRT monitors	<input style="width: 80%;" type="text" value="-"/>	<input style="width: 80%;" type="text"/>

Power Management Features

Enter the number of desktops* and notebooks* that are configured and/or will be configured to automatically enter:	Desktop	Notebook
c) "Standby" or "hibernate" mode when inactive (i.e., CPU, hard drive, etc. go to sleep)	<input style="width: 80%;" type="text" value="-"/>	<input style="width: 80%;" type="text" value="-"/>
d) "Monitor shut down" mode when inactive (i.e., monitor/display goes to sleep)	<input style="width: 80%;" type="text" value="-"/>	<input style="width: 80%;" type="text" value="-"/>

Assumptions

e) Enter cost of electricity OR select the state in which the computers are operated, and choose commercial or residential service	<input style="width: 80%;" type="text" value="\$0.088"/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Illinois</td> <td style="text-align: right;">▼</td> </tr> <tr> <td>Commercial</td> <td style="text-align: right;">▼</td> </tr> </table>	Illinois	▼	Commercial	▼
Illinois	▼					
Commercial	▼					
f) Roughly what percentage of your computers are currently turned off each night and during weekends, holidays and vacations by users?*	<input style="width: 80%;" type="text" value="**36 percent of the time turned off"/>					
	Use Other Turn Off Rate?	<input style="width: 80%;" type="text" value="No"/>				
	Other Turn Off %	<input style="width: 80%;" type="text"/>				

After completing this page, click the **green "Results" tab** below to view your estimated savings OR click the **red "Adjust" tabs** below to perform customized calculations of energy savings specific to your environment.

**Includes both ENERGY STAR and non-ENERGY STAR*

***Default of 36% as the percentage of computers turned off each night is based upon 2004 Lawrence Berkeley National Lab Report entitled "After-hours Power Status of Office Equipment and Inventory of Miscellaneous Plug-Load Equipment"*

****If your organization always shuts off their monitors at night the turn off rate should be set to 100%,*

*****If your organization never shuts off their monitors at night, the turn off rate should be set to 0%.*

Notes about defaults and assumptions in the Quick Calculator:

- 1) Assumes standard monitor is a CRT monitor and an ENERGY STAR qualified monitor is an LCD monitor.
- 2) All other assumptions can be seen by clicking the red "Adjust" tabs below.



**Occupancy sensors
aren't just for turning
off the lights**

Program your thermostats



**Don't break
the bank**





BUSINESS ASSISTANCE

dceo > Business Assistance > Energy & Recycling > Energy > Energy Efficiency

Search

Administration/Director's Office

Office of Accountability

Business Development

Coal

Community Development

Energy & Recycling

Resources

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Energy

Recycling

Education

Economic Stimulus

Contact

Entrepreneurship and Small Business

Film

Homeland Security Market Development

Technology

Tourism

Trade

Workforce Development

Facts & Figures

Grantee Support

LIHEAP and Weatherization

MAIN MENU

Workforce Development

Community Development

Tourism

Film

Facts and Figures

About DCEO

State Links

Energy Efficiency

Print Version



DCEO Bureau of Energy and Recycling, Ameren Illinois and ComEd are offering a portfolio of electric efficiency programs to achieve targeted annual energy savings goals. For further information on the legislation, background and history, go to www.ileeps.org and refer to the [DCEO Electric Efficiency Portfolio Fact Sheet](#). Incentives are available to customers in Ameren Illinois and ComEd's electric service areas.

- DCEO provides incentives for the Public Sector, Affordable House New Construction and Gut Rehab, as well as Training and Education
- ComEd (www.comed.com) and Ameren Illinois (www.ActOnEnergy.net) provide incentives for businesses and residential customers.

The Programs offered by DCEO's Bureau of Energy and Recycling are as follows:

Public Sector Electric Efficiency

These programs include the *Standard and Custom Incentive Programs* and *New Construction Program*. These are offered to the **Public Sector**:

- federal, state and local government (county, township, municipal),
- public schools, community colleges, public universities and colleges,
- public safety, water and park districts

in **ComEd** and **Ameren Illinois** electric service territories.

YEAR 2 Public Sector Electric Efficiency Program Guidelines and Forms have been posted [here](#).

To encourage the Public Sector to implement electric savings measures, we have made the following changes:

- The incentive cap you can apply for has increased from \$100,000 to \$200,000 per building.
- The incentive cap has increased from 50% to 75% of Total Project Cost (equipment + labor).
- Most of the Standard Incentives available have increased.
- The Custom Incentive has increased from \$0.07 to \$0.08 per annual kWh savings.
- New measures have been added to the Standard Incentive Program.

We would like to thank you for your participation in Program Year 1, we are still running numbers to determine Program Year 1 impacts on energy savings.

Standard and Custom Incentive Programs

Provides grants and rebates to public sector entities for electric system efficiency improvements including lighting, motors, variable frequency drive controls, HVAC equipment, traffic signals, among others. [Guidelines](#), [Application](#), [Worksheets](#)

Standard Incentive Program

Provides set incentive levels for common retrofits for lighting, HVAC, motors and refrigeration. [Application and Standard Incentive Forms](#) in Excel format. (Use these spreadsheets to fill in the [Application](#) from Appendix A and [Standard Incentive Worksheets](#) from Appendix B: Lighting, HVAC, Motors, Refrigeration)

Custom Incentive Program

Provides incentives for electric efficiency improvements not listed in the Standard Incentive Program. [Custom Incentive Forms and Worksheets](#). Use these Worksheets for additional documentation along with the Custom Incentive Program Application in Appendix C.

New Construction Program

Provides grants to public sector entities to encourage applicants to design new or rehabbed buildings to achieve the highest level of energy efficiency. [Guidelines and Application](#)



W

elcome to Illinois Clean Energy Community Foundation

The Illinois Clean Energy Community Foundation invests in clean energy development and land preservation efforts, working with communities and citizens to improve environmental quality in Illinois. The Foundation supports programs and projects that will improve energy efficiency, develop renewable energy resources and preserve and enhance natural areas and wildlife habitats throughout the state.

The Foundation's programs have grown steadily since it awarded its first sets of grants in 2001. Over the last seven years, the Foundation has awarded 2859 grants, totaling \$151 million to Illinois nonprofit organizations, schools, municipalities and other local government agencies. The grants support activity in all of our 102 counties in the state of Illinois.



2009 Grant Deadlines

Competitive Cycles
January 20, 2009
July 20, 2009

* **Child Care Lighting Upgrades**
February 16, 2009

* **College & University Lighting Upgrades**
February 16, 2009

Historic Courthouse Lighting Upgrades
March 17, 2009

Public Safety Facilities Lighting Upgrades
March 17, 2009

K-12 School Solar PV System Upgrades
March 27, 2009

2009 Lighting Upgrades
Applications

Green Building Design & Commissioning Program Guidelines



DSIRE

Database of State Incentives for Renewables & Efficiency

[FAQs](#)

[Summary Maps](#)

[Summary Tables](#)

[Search By](#)

[Glossary](#)

[Links](#)

[Library](#)

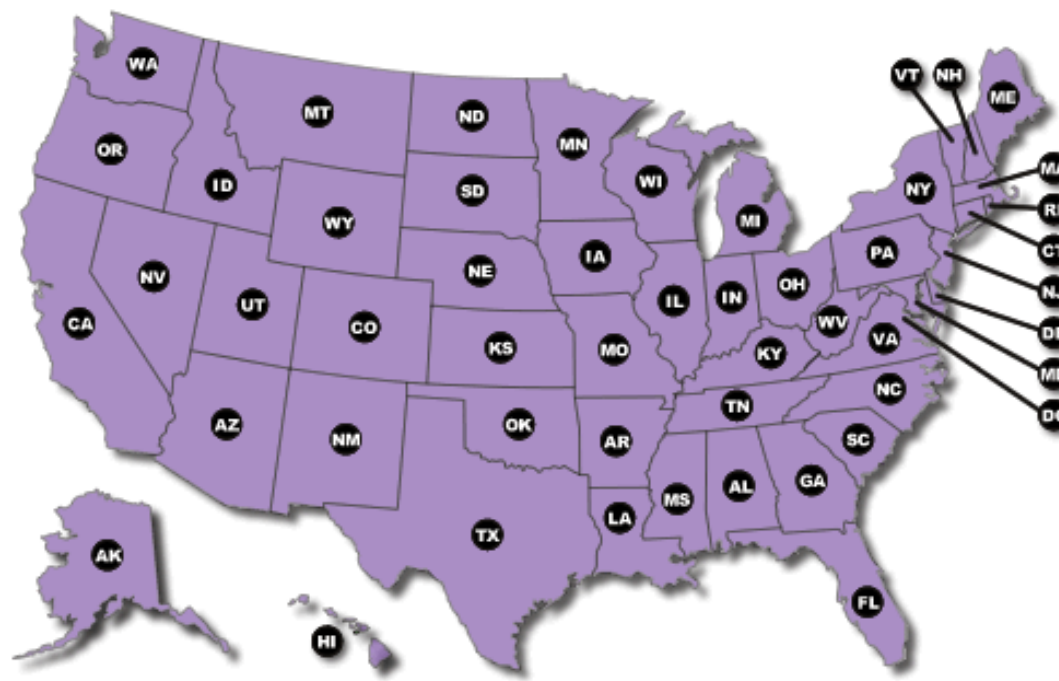
[New / Updated Incentives](#)

DSIRE is a comprehensive source of information on state, local, utility, and federal incentives that promote renewable energy and energy efficiency. Choose one or both databases to search:

Renewable Energy Energy Efficiency



Federal Incentives



US Territory Incentives

Last Updated: 05/15/08

[FAQs](#) | [Summary Maps](#) | [Summary Tables](#) | [Search By](#) | [Glossary](#) | [Links](#)



Water costs more
than you think



Buy Green

Five Guiding Principles for Green Purchasing

- ◆ Consider environmental factors as well as price and performance when making purchasing decisions
- ◆ Emphasize pollution prevention early in the purchasing process
 - ◆ Choose cleaning products, paints, and other chemicals that are less toxic and biodegradable
- ◆ Examine multiple environmental attributes throughout a product's or service's life cycle
- ◆ Compare relative environmental impacts when selecting products and services
- ◆ Collect and base purchasing decisions on accurate and meaningful information about environmental performance



The Green Purchasing Top 10

- 1) Review purchase specifications and contracts to see if they contain environmental performance standards or requirements.
- 2) Ask your existing suppliers about green alternatives. Give them a try.
- 3) Consider how to make your product or service green and what you'll need to purchase differently to make it happen.
- 4) Choose a suitable green products listing and use it when making purchases.
- 5) Purchase and install energy efficient lighting for your buildings.



The Green Purchasing Top 10

- 6) Determine who supplies your energy and consider changing to renewable energy sources.
- 7) Request vendors to provide supplies in reusable packaging that can be used for your products or returned to the supplier.
- 8) Purchase appropriately sized lots to minimize waste. Purchase bulk where feasible but in small quantities for shelf life/dated materials.
- 9) Change your office purchasing policies: buy recycled office consumable products, Energy Star certified office equipment, and reusable utensils, plates and cups for meetings.
- 10) Buy and use less toxic cleaners or hire those who do.





Beware of greenwashing

Be a Smart Consumer

- ❖ Environmental claims should be specific
 - Look for specific amounts (recycled content, a certain percentage less packaging, etc.)
- ❖ Some claims are too vague to be meaningful
 - “eco-friendly”, “environmentally friendly”
- ❖ Degradable products don't save landfill space
 - Anything degradable put into a landfill degrades very slowly
 - Composting turns degradable material into usable compost
- ❖ Symbols can be useful
 - ❖ Recycling symbol
 - ❖ Green certification symbols → Energy Star, Green Seal, EPEAT, WaterSense





Cleaners, electric chillers, paint, floor care, paper, hand soaps, windows, doors



Toilets, showerheads, faucets, landscape irrigation services



Wood and paper products



Low emitting interior building materials, furnishings, and finish systems.



Electronics, lighting



Office furniture systems, components, and seating, building materials, carpet, flooring, paint

Ecolabels can help you find green products. This site helps companies and consumers use them. You can browse, search or learn more about ecolabels below.

SEARCH BY REGION



Global Africa Asia Europe Latin America North America Oceania

SEARCH BY TYPE

Buildings	45	<div style="width: 45%;"></div>
Carbon	13	<div style="width: 13%;"></div>
Electronics	35	<div style="width: 35%;"></div>
Energy	28	<div style="width: 28%;"></div>
Food	75	<div style="width: 75%;"></div>
Forest Products	35	<div style="width: 35%;"></div>
Retail Goods	72	<div style="width: 72%;"></div>
Textiles	38	<div style="width: 38%;"></div>
Tourism	27	<div style="width: 27%;"></div>
Other	65	<div style="width: 65%;"></div>

RECENT BLOG POSTS

Smart Choices and why categories matter

Defining what is good is really hard. Defining what is "better" slightly easier, but still tricky. And making that into a simple label that clearly says to people...

[Read More](#)



Ecolabelling.org helps you to



Build a Green Purchasing Strategy for Your Business.

Find out how your company can use ecolabels.



Buy Green Products.

The companies advertising on this site use ecolabels to assure you their products are green.



Sell Your Green Products on this Site.

Use ecolabels to ensure consumers trust your green marketing.

There are so many certifications, accreditations and seals of approval out there it's hard to tell what's what. The idea is that the site lays out all the known labels in one place....

TShirt & Sons

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FEATURED LABEL



Hong Kong Green Label (HKGLS)

[Learn More About This Label](#)

Products With Significant Impact

- ❖ Paper products
- ❖ Electronics
- ❖ Janitorial supplies





**According to a survey of Los Angeles offices,
their workers use 1.5 pounds of paper per person per day.**

Rethink Your Paper Use

- ❖ Reduce your paper use.
 - Print only when necessary
 - Review and edit electronic documents on screen
 - Use fax post-its rather than a cover sheet
 - Duplex instead of printing on one side
- ❖ Purchase paper with post-consumer recycled content of 30% or higher.
- ❖ Buy unbleached and uncolored paper whenever possible.
- ❖ Start an office paper recycling program if you don't already have one.





**Earth friendly
electronics isn't
an oxymoron**

Buy Greener Electronics

- ❖ Buy with energy in mind → Energy Star
- ❖ Buy used
 - Fifty percent of computers being recycled are in good working order. They are discarded to make way for the latest technology (Silicon Valley Toxics Coalition, 2001).
 - Look on Freecycle, Ebay, Craigslist, or at your local computer dealer
 - TechSoup's Refurbished Computer Initiative
- ❖ Look for EPEAT
 - Sets environmental criteria for computers
- ❖ Buy less toxic
 - Greenpeace *Guide to Greener Electronics*





Of the 2.25 million tons of TVs, cell phones and computer products disposed of in the United States in 2007, 18% (414,000 tons) was collected for recycling and 82% (1.84 million tons) was thrown away, primarily in landfills. (U.S. EPA, 2007)

Think Before You Trash

- ❖ Electronic devices are a complex mixture of several hundred materials.
- ❖ Many of these contain toxic heavy metals such as lead, mercury, cadmium and beryllium and hazardous chemicals, such as brominated flame retardants.
- ❖ Don't throw your electronics away
 - Manufacturer and retailer take back programs
 - Donate to schools, community organizations, or vocational programs



Each year, 6 billion pounds of chemicals and 4.5 billion pounds of paper products (representing about 25 to 50 million trees) are used to clean commercial buildings – Ashkin Group



Why Convert to Green Cleaners

- ❖ Helps you meet green purchasing goals
- ❖ Promotes a healthier working environment
- ❖ Improves safety for janitorial workers
- ❖ Reduces your organization's environmental footprint
- ❖ Helps create a more sizable market for cost effective high performance green products



How to Choose Green Cleaners

- ❖ Green Seal Standard for Industrial and Institutional Cleaners (GS-37)
 - Standard covers all purpose, bathroom, and glass cleaners.
 - Establishes criteria for 13 factors, such as toxic compounds, carcinogens, skin and eye irritants, and combustibility.
 - More than 5 dozen products certified to standard
- ❖ EPA Database of Environmental Information for Products and Services
- ❖ *Greening Your Purchase of Cleaning Products: A Guide For Federal Purchasers*





**Purchasing is only
part of the green
cleaning picture**

Green Cleaning Practices

- ❖ Keep dirt out of the building
 - Durable welcome mat encourages visitors to wipe their feet
- ❖ Minimize product use
- ❖ Match the product with the need
 - Don't use a strong cleaner on a mild stain
- ❖ Choose cleaning equipment that is durable, energy efficient, and quiet
- ❖ Train your staff to use products properly
- ❖ Green Cleaning P2 Calculator →
<http://ofee.gov/janitor/index.asp>



Setting an example is not the
main means of influencing
others; it is the only means. --
Albert Einstein

