Going Green in the School Library

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What is sustainability?
Why is it important?
So I can have clean air and water.
“While others fight noisily about who needs to do what to keep endangered species from disappearing, libraries go quietly about their business of saving rivers and forests – one book, magazine, compact disc, and hedge trimmer at a time.”

-- John C. Ryan
How can you reduce waste in your library?
Your Activities Impact the Environment

- How you use energy and water
- How you get to and from work
- What you buy
- What you throw away
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?
Office equipment and computer use account for 10% of energy use in libraries.
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.
69%-97% of total computer energy use occurs during idle time – Natural Resources Defense Council
**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:

<table>
<thead>
<tr>
<th></th>
<th>Desktop</th>
<th>Notebook</th>
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<tbody>
<tr>
<td>a) Computers used and/or to be used in place of standard computers</td>
<td></td>
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<tr>
<td>b) LCD monitors used and/or to be used in place of CRT monitors</td>
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### Power Management Features

Enter the number of desktops* and notebooks* that are configured and/or will be configured to automatically enter:

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<td>c) &quot;Standby&quot; or &quot;hibernate&quot; mode when inactive (i.e., CPU, hard drive, etc. go to sleep)</td>
<td>-</td>
<td>-</td>
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<tr>
<td>d) &quot;Monitor shut down&quot; mode when inactive (i.e., monitor/display goes to sleep)</td>
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### Assumptions

- **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.**

### Enter the number of desktops* and notebooks* that are configured and/or will be configured to automatically enter:

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- **$0.088** Residential
- **$0.088** Commercial
- Illinois

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.

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*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.
Always use power saver features
Program your thermostats
Other Opportunities

- Ask for technical assistance (ISTC, SEDAC)
- Install high-efficiency water heater
- Check hot water temperature, reset if appropriate
- For new construction, expansion, renovation, consult contractors/designers with energy efficiency expertise – insulate beyond code
- Premium efficiency electric motors
- Efficient catering equipment and turn off when not in use
- Track energy use history
Don't break the bank
Energy Efficiency

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),
- School districts, community colleges, public universities and colleges,
- Public safety, water and park districts

in ComEd and Ameren Illinois electric service territories.

**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 rehabilitated buildings to achieve the highest level of energy efficiency. Guidelines and Application
Welcome 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.
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
Why Buy Green?

- Reduces your costs
- Enhances your market position
- Easy to do
Five Guiding Principles for Green Purchasing

- Consider environmental factors as well as price and performance during your purchasing process
- Emphasize pollution prevention
- 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
Office furniture systems, components, and seating, building materials, carpet, flooring, paint

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

Wood and paper products

Electronics, lighting
Beware of greenwashing
What Is Greenwashing?

- Whitewashing with a green brush
- Bad for the environment
- Bad for consumers
- Bad for businesses
How Do I Spot It?

❖ Truth
  ▪ Look at the company as a whole. Is sustainability a prominent part of their web site?

❖ The whole truth
  ▪ Google the company name + environment to see what results you get

❖ Nothing but the truth
  ▪ “I know it when I see it” applies to greenwashing as well as obscenity. Does the claim sound right to you?
Label Reading Guidelines

- 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 → look for the recycling symbol
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 or 30% or higher.

❖ Buy unbleached and uncolored paper whenever possible.

❖ Start an office paper recycling program if you don't already have one.

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Special Considerations for Libraries

❖ Print vs. electronic resources
  ▪ Going electronic with journals saves paper.

❖ Weeding
  ▪ Book giveaways to students/staff
  ▪ Partner with Better World Books or B-Logistics
  ▪ Sell on Amazon, Half.com, or E-Bay
  ▪ Sell, donate, or recycle CDs and DVDs
  ▪ Crafts with old hardcover books
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
- 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
- TechSoup Refurbished Computer Initiative Program
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
- Helps position your organization as a leader in the use of sustainable business practices
EPA Guidelines for Green Cleaners

- Minimizes exposure to concentrates
- No ozone depleting substances
- Reduced/recyclable packaging
- Recycled content in packaging
- Reduced bioconcentration factor
- Reduced flammability
- Reduced or no added dyes, except when added for safety purposes
- Reduced or no added fragrances
- Reduced or no skin irritants
- Reduced or no volatile organic compounds (VOCs)
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*

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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
Be a Sustainability Leader
Setting an example is not the main means of influencing others; it is the only means. -- Albert Einstein
Bibliography/resource list available at
http://www.istc.illinois.edu/info/library_docs/other_pubs/Going-Green-in-the-School-Library.pdf