

LICBDC's Guide to Going Green

LIC GREEN



Chapter 3: Greening Your Daily Operations

1. Waste

A waste audit helps to analyze waste disposal practices and identify areas for improvement. This section of the guide highlights ways to reduce, reuse, and recycle.

Reduce

By minimizing packaging, manufacturers can reduce both purchasing and shipping costs. See the EPA's *Lean and Green Supply Chain* guide for managers.¹

The New York Times

June 30, 2008

Efficiency, One Gallon at a Time

Sam's Club is adopting a new, stronger milk container design that will streamline packaging, maintenance and delivery at lower cost to its customers. Other retailers may follow suit.



	TRADITIONAL JUG	NEW DESIGN	IMPACT
Packaging and Storage	Traditional milk jugs cannot be stacked and require crates for storage and transport.	The new milk containers have flat tops and ridged sides that allow multiple stacking, bound by cardboard bands and shrink wrap.	By eliminating the crates, the new containers store 4.5 gallons of milk in a cubic foot — 50 percent more than the 3 gallons stored in a cubic foot with the old jugs.
Maintenance	Plastic crates are reusable after being returned and washed.	After single use, the cardboard and shrink wrap are recycled.	No water is needed for washing, and no labor is required to load and return the crates.
Transport and Fuel	Four to five trips a week are required to deliver milk to a typical Sam's Club.	Two delivery trips are required each week.	Fewer trips by delivery trucks reduce fuel cost and consumption.

Source: Superior Dairy

Sam's Club redesigned their milk packaging. The new containers hold 50% more milk, resulting in 50% fewer deliveries and lower materials and fuel costs.²

Packaging Materials

Ghirardelli Chocolate Company switched their shipments to reusable plastic totes, eliminating the need to purchase and dispose of 580,000 cardboard boxes each year, and saving \$520,000 annually.³

In 1999, New United Motor Manufacturing, Inc. (also known as NUMMI, a joint venture between General Motors and Toyota) started a recycling and reduction program that saved \$4.5 million that year. NUMMI now requires its suppliers to use reusable shipping containers, reducing cardboard consumption by 60%, avoiding 11,000 tons of waste.⁴

Another option is to purchase biodegradable packaging that breaks down naturally instead of sitting in a landfill for hundreds of years.

Every business can reduce waste by purchasing only what is absolutely necessary. Try to make what you have last longer. Taking care of office equipment can increase its life span and reduce electronic waste, one of the fastest growing sources of waste in the US.

Reuse

Wastematch is a great resource for all types of companies, especially industrial businesses. Simply post an ad for what you need to buy or sell, list your price, and wait for a match!
<http://www.wastematch.org/>

Recycle

If your building does not currently recycle, contact the Department of Sanitation or your private sanitation company to set up a recycling system.
http://www.nyc.gov/html/nycwasteless/html/recycling/recycling_nyc.shtml

Tips for a good recycling program:

- **Keep it simple.** The fewer changes people must make in their daily routine to recycle the greater the chance for success. Place collection containers in convenient, well-traveled areas like restrooms, cafeterias, and copier rooms. Label bins or collection boxes with clear information about what to put in - and what to keep out.
- **Monitor and measure.** Use surveys, interviews, and inspections to find out how the system is working. Spot-check recycling bins and trash cans to see if people are following directions about what to put where. Keep track of paper to help establish and track goals: Where is it going? What kinds and volumes of paper are being purchased, discarded, and recycled?
- **Sell, sell, sell.** Market through newsletters, posters, email, company meetings.
- **Seek and give feedback.** Designate someone to explain and answer employee questions about recycling. Encourage employee input on how to improve the system. Provide updates on the program including trash reduction amounts. Consider offering incentives like prizes or special events for individuals and departments doing a good job.⁵

If your building operating team is unfamiliar with how to start a recycling program, have them talk to facility managers who have successfully implemented recycling programs.

Paper

Organization expert Eileen Roth, author of *Organizing for Dummies* said, “**80 percent of the papers people file are things they'll never use again**”.¹

“**A typical office disposes of about 350 pounds of wastepaper per employee per year.**”⁶
Where practical, switch from single-sided to double-sided copying and printing. Other ways to reduce costs include switching to a digital camera, transferring to an electronic billing system, using email instead of paper or fax, not printing email messages, updating mailing lists, reusing paper for drafts, setting computer defaults to print on both sides, stocking the kitchen with reusable dishes and utensils.

Bank of America saved \$500,000 a year by simply reducing the weight of the ATM receipts 25%, dramatically reducing expenses for paper, transportation, storage, and handling.⁷

Indoor Composting

Many vegetable wastes such as orange peels, apple cores and coffee grinds can be composted indoors using containers with adequate drainage, ventilation, and earthworms. For containers, contact the NYC Compost Project or the Queens Botanical Garden.

<http://www.nyccompost.org/> <http://www.queensbotanical.org/education/56847/composting>

2. Equipment

Office Equipment

Office equipment accounts for approximately 7% of all commercial sector power consumption in the US.⁸ \$1.8 billion is spent each year to operate office equipment in businesses and homes.⁹ This section of the guide provides tips on reducing energy use with current equipment, and tips on purchasing more efficient equipment.

Saving Energy

Studies suggest that PCs are active only 9%-15% of the time. By turning off computers overnight, when they are not in use, and by using power saving settings, electricity waste can be minimized. Monitors, computers, and other office equipment can be set to use less power when idle. Using ENERGY STAR certified equipment dramatically reduces electricity consumption.

To enable power management modes on a PC, right click on your computer's desktop background. Click "Properties," then the "Screen Saver" tab, then the "Power" button. Change settings to more power-saving methods by altering when your hard drive and monitor turn off if unused. Set your monitor to turn off after 10 minutes, and your computer to turn off after an hour. On a Mac, go to System Preferences, Energy Saver.

If your employees are comfortable working on a laptop, and the funding is available, use them. Laptops use 25% less energy than desk models.

Did you know...coffee makers, computers, stereos, televisions, phone chargers, and many other devices use energy even when turned off? Connect them to a power strip so it's easy to turn them all off at once. Stop paying for "phantom loads."

Screen savers do not alter power consumption. Monitors are using electricity while they are on, even if they are inactive. ENERGY STAR certified computers reduce power use to 15% of maximum when inactive. Power use by ENERGY STAR certified monitors, copiers, printers and fax machines also drops sharply when they are inactive.

Reducing Electronic Waste

Donate old equipment to a local nonprofit or school. Post goods for purchase, sale or donation at either NYC Stuff Exchange, or Wastematch.

<http://www.nyc.gov/html/stuffex/html/home/home.shtml> www.wastematch.org

Materials for the Arts reuses donated old equipment and scraps for arts projects. www.mfa.org
United Way and Goodwill Industries also take donations. Visit www.unitedwaynyc.org and
www.goodwillny.org.

Donate old cell phones or PDAs to <http://www.cellphonesforsoldiers.com/> or one of hundreds of organizations featured on <http://www.charitablerecycling.com> and <http://www.recyclingforcharities.com/>. Verizon Hopeline collects both usable and non-usable phones for domestic violence prevention and awareness organizations. Donate office supplies or furniture to NYCWasteLe\$\$ for distribution to charitable organizations.
http://www.nyc.gov/html/nycwasteless/html/new_homes/new_homes.shtml#where

Contact NYC Department of Sanitation to arrange for recycling pickup of freezers, refrigerators, water coolers, dehumidifiers, or air conditioners that contain chlorofluorocarbon (CFC) gases.
<http://www.nyc.gov/html/dsny/html/collection/freon.shtml>

See tips for reuse of appliances and other materials at
<http://www.nyc.gov/html/dsny/html/collection/dontthrowaway.shtml>

State Reimbursements for New Equipment

Many commercial equipment upgrades for refrigerators, kitchens and washers are pre-qualified by NYSERDA for financial reimbursement from New York State.

http://www.nyserda.org/programs/Existing_Facilities/pdfs/PQ%20Refrigeration.pdf

[http://www.nyserda.org/programs/Existing_Facilities/pdfs/PQ%20Kitchens%20&%20Washers.p
df](http://www.nyserda.org/programs/Existing_Facilities/pdfs/PQ%20Kitchens%20&%20Washers.pdf)

3. Purchasing

Avoid purchasing materials that may be harmful to the environment. Purchasing green products does not always cost more. While some green products may cost more up front, in the long run they can save you money and time because.¹⁰

- They may be more durable and longer lasting.
- They may be more concentrated, or in the case of some eco paints and sealants, have higher coverage rates so less product is used.
- They may be easier to reuse and recycle.
- Green raw materials can create new sources of revenue because many customers prefer to buy environmentally friendly products.

Consider the life cycle cost when deciding what equipment to buy. More efficient equipment that costs more upfront may have fewer maintenance requirements, lower operating costs, and/or may last longer than less efficient equipment.

What to Look For

Please see our *Additional Resources* section for links to EPA Environmental Purchasing databases, and other links for your purchasing needs. Whenever evaluating environmental

claims, be wary of greenwashing. Governmental certification of products, such as ENERGY STAR or USDA Organic, should be preferred. Private certification can also be acceptable, but look at the certification criteria first. Green Seal, Forestry Stewardship Council, Scientific Certification Systems, Smartwood, Biodegradable Product Institute, EcoLogo, Sustainable Forestry Initiative, and the EPA are good places to start. For tips on identifying environmentally responsible printers for your printing projects, see:

<http://greenbiz.com/resources/resource/what-look-eco-friendly-printer>

Look for these labels at stores:



Scientific Certification Systems has a database that you can use to find the green product you need. View it at <http://www.scs-certified.com/ecoproducts/products/>

4. Meetings and Events

Whether you plan your own events or hire a consultant, greening can reduce environmental impact, lower the costs, and impress your attendees.

Fifteen ways to have a successful green event:

- Talk with facility managers to see if they have an environmental policy, or are willing to accommodate your needs. Select a site that is more environmentally responsible (recycles and takes efforts to reduce waste, has efficient equipment and lighting, purchases or uses renewable energy, has occupancy sensors in conference rooms).
- Pick a site close to public transportation, and publicize all of the transit options in your outreach materials. Provide shuttles for guests from pre-determined hotels.
- Work with your facility manager to provide proper recycling bins and signage.
- Encourage your guests to stay at green hotels and provide them with recommendations.
- Try to use email and the phone to communicate logistics for your event.
- Provide online registration and email the invitations and “save the date” information.

- Use post-consumer recycled paper for materials at the event and minimize handouts. Think creatively about how waste can be reduced with prepared materials.
- Use plastic name-tag holders that can be reused for future events and ask participants to drop off their name tags in a bin on their way out.
- When materials are being presented instead of printing out handouts provide a web address where presentations can be viewed again.
- Consider serving local and organic food and work with your caterers to compost and/or donate the leftovers.
- Use reusable tablecloths, napkins, plates, and beverage containers.
- Include information about the green specifics of your event somewhere in the program. Encourage guests to continue with a sustainable lifestyle.
- Use reusable centerpieces at tables.
- Use live plants, instead of flowers, for centerpieces or décor and donate them afterward.

See Additional Resources for contract language for green meeting consultants.

Green hotels in NYC: <http://www.allstays.com/green-hotels/ny-new-york-green-hotels.htm>

5. Producing Green Products

More manufacturers are tapping into the ever-growing market of environmentally conscious consumers. You can create a new green product from scratch or alter supplies and production processes to make existing products more environmentally friendly. For more information see *Additional Resources*. Also visit *Chapter 1* of this guide for information about ecolabeling and certification, to verify your new green products and win customer support.

ADDITIONAL RESOURCES FOR CHAPTER 4:

Additional Resources for Reducing Waste:

<http://www.bignyc.org/content/new-york-city-sierran>

Astoria-based Build it Green! receives and sells pre-owned building materials.

Department of Sanitation – Refuse Collection

<http://www.nyc.gov/html/dsny/html/collection/refuse.shtml>

WasteLe\$\$ In NYC – Recycling

http://www.nyc.gov/html/nycwasteless/html/recycling/recycling_nyc.shtml

NYC Compost Project

<http://www.nyccompost.org/>

WasteLe\$\$

<http://www.nyc.gov/html/nycwasteless/html/home/home.shtml>

NYC Stuff Exchange

<http://www.nyc.gov/html/stuffex/html/home/home.shtml>

Waste Wise – EPA Free Program for Reducing Waste

<http://www.epa.gov/wastewise/about/overview.htm>

Waste Wise – Member Services

<http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/mem-serv.htm>

Waste Wise Climate Campaign

<http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/climate/tools.htm>

Waste Wise Benefits to Joining

<http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/about/benefits.htm>

Waste Wise Register for Program

<http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/about/reg.htm>

Business.gov – Pollution Prevention and Recycling

<http://www.business.gov/guides/environment/environmental-regulations/pollution-prevention.html>

NYC WasteLe\$\$ for Business

http://www.nyc.gov/html/nycwasteless/html/in_business/in_business.shtml

NYC WasteMatch

<http://www.wastematch.org/>

Additional Resources on Equipment:

Greenbiz – Computers

<http://greenbiz.com/resources/resource/practical-tips-make-your-computer-environmentally-friendly>

Greenbiz – XP vs Vista

<http://greenbiz.com/resources/resource/xp-vs-vista-consider-power-savings>

Greenbiz – Computer Purchasing

<http://greenbiz.com/resources/resource/guide-environmentally-preferable-computer-purchasing>

American Council for an Energy-Efficient Economy – Guide to Commercial Equipment

http://aceee.org/oqece/ch1_index.htm

Greenbiz – Computer Recycling (brief)
<http://greenbiz.com/resources/resource/computer-recycling>

ENERGY STAR
<http://www.energystar.gov/>

ENERGY STAR Find a Product
http://www.energystar.gov/index.cfm?fuseaction=find_a_product.

Examples of Environmental Purchasing Policies:

County of Sacramento
<http://www.ciwmb.ca.gov/buyrecycled/Policies/SacCounty.pdf>

King County, WA
<http://www.metrokc.gov/procure/green/policy.htm>

University of Florida
http://www.purchasing.ufl.edu/UF_Envionmental_Purchasing_Policy.pdf

Home Depot Wood Purchasing Policy
http://corporate.homedepot.com/wps/portal/Wood_Purchasing

Bank of America Paper Purchasing Policy
http://www.bankofamerica.com/newsroom/press/pdfs/Paper_Procurement_Policy.pdf

Staples Paper Purchasing Policy
http://www.staples.com/sbd/img/content/soul/pdf/staples_environmental_paper_procurement_policy.pdf

Toshiba
http://www.toshiba.co.jp/procure/pdf/en_green.pdf

Additional Resources on Purchasing:

How to Green Your Purchasing Policy; Sample Purchasing Policy
<http://www.greenyour.com/office/office-purchasing/green-purchasing-policy/tips>

NRDC – Green Purchasing Policies
<http://www.nrdc.org/enterprise/greeningadvisor/pu-policy.asp>

Greenbiz – Paper and Printing
<http://greenbiz.com/resources/resource/what-look-eco-friendly-printer>

Scientific Certification Systems – Ecoproducts
<http://www.scs-certified.com/ecoproducts/products/>

Environmentally Preferable Purchasing

http://www.pprc.org/pubs/epp/epp_report.cfm

Biodegradable Products Institute – Product list
<http://bpiworld.org/BPI-Public/Approved.html>

ENERGY STAR
<http://www.energystar.gov/>

EcoLogo – Certified Products
<http://www.ecologo.org/en/certifiedgreenproducts/>

Sustainable Forestry Initiative – Product Search
<http://www.certifiedwoodsearch.org/sfiprogram/searchproducts.aspx>

Greenbiz – Verifying Environmental Product Claims
<http://greenbiz.com/resources/resource/verifying-environmental-product-claims>

Greenbiz – Working with Suppliers
<http://greenbiz.com/resources/resource/how-supply-chain-management-practices-are-brgreening-procurement>

EPA Database of Environmental Information for Products and Services
<http://yosemite1.epa.gov/oppt/eppstand2.nsf/Pages/Search.html?Open>

Buy Recycled Business Alliance - Guide to Buying Recycled
<http://greenbiz.com/files/document/O16F4773.pdf>

Find a Product from Green Seal
<http://www.greenseal.org/findaproduct/index.cfm>

Organic Trade Association - The Organic Pages Online Directory
<http://www.theorganicpages.com/topo/index.html>

Greenbiz – Buying Recycled (brief)
<http://greenbiz.com/resources/resource/buying-recycled>

Green Seal – Where to Buy Green
<http://www.greenseal.org/findaproduct/location.cfm>

USDA – Organic Certified
<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateA&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOPNationalOrganicProgramHome&acct=nop>

National Geographic – The Green Guide – Buying Guide
<http://www.thegreenguide.com/products/>

International Paper – Paper, packaging, and more
<http://www.internationalpaper.com/index.html>

ENERGY STAR – Find a Product

http://www.energystar.gov/index.cfm?fuseaction=find_a_product.

Additional Resources on Event and Meeting Planning:

Planning a Sustainable Event

<http://greenbiz.com/files/document/CustomO16C45F53024.pdf>

EPA – Green Meeting Planner

<http://www.epa.gov/oppt/greenmeetings/pubs/who.htm#host>

EPA – Contract Language for Green Meeting Consultants

<http://yosemite1.epa.gov/oppt/epstand2.nsf/ContLang/D70B0588CA8B661F8525696C0068C310?Open&EPA%20Office%20of%20Pollution%20Prevention%20and%20Toxics&Specialty%20Store&Conferences&Green%20Conferences>

BlueGreen Meetings – Ten Easy Tips

<http://www.bluegreenmeetings.org/HostsAndPlanners/10EasyTips.htm>

SustainableBusiness.com – Holding a Green Conference

<http://www.sustainablebusiness.com/index.cfm/go/news.feature/id/791>

National Recycling Coalition – Green Meetings Policy

<http://greenbiz.com/files/document/CustomO16C45F42045.pdf>

Additional Resources for Producing Green Products

Greenbiz – Green Product Design

<http://www.greenbiz.com/resources/resource/green-product-design>

Design Green – Sustainable Product Design Consulting

<http://www.designgreen.org/>

Green Seal – Get Your Product Certified Green

<http://www.greenseal.org/getcertified/index.cfm>

EPA Green Suppliers Network – resources for manufacturers

<http://www.epa.gov/greensuppliers/>

<https://www.greensuppliers.gov/gsn/home.gsn>

Help for manufacturers who want to go Lean and Clean

<https://www.greensuppliers.gov/gsn/page.gsn?id=service>

Lean and Environment Toolkit

<http://www.epa.gov/innovation/lean/toolkit/index.htm>

Lean and Clean Training Modules (Identifying Waste, Value Stream Mapping, and Safety)

https://www.greensuppliers.gov/gsn/page.gsn?id=lean_clean

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- ¹ <http://www.greenbiz.com/files/document/O16F9773.pdf>
 - ² <http://www.nytimes.com/2008/06/30/business/30milk.html?ref=business>
 - ³ NRDC
 - ⁴ NRDC
 - ⁵ Ibid.
 - ⁶ NRDC
 - ⁷ Ibid.
 - ⁸ US Department of Energy. <http://www1.eere.energy.gov/buildings/commercial/appliances.html>
 - ⁹ Ibid.
 - ¹⁰ http://www.givesomethingback.com/MyGreenGSB_green_cost.php