

TIPS FOR GOING GREEN IN THE WORKPLACE & HOME

WALKER ENGINEERING believes that incorporating a “**GOING GREEN**” mentality into our office culture is an important way to make our contribution to the global effort. Below are some ideas that we have gathered from different sources to help give you some ideas of how to “**GO GREEN**” in your office environment, and also in your home environment. It’s amazing how even small changes can make a difference. We tried to compile a list of the changes that we can make in our offices and personal lives that are actually doable and changes that we can actually make and feel good about. So...pick at least a few and **LET’S GO GREEN TOGETHER!**

Sources of Information Contained in this List:

- 1) www.earth911.com
- 2) www.planetgreen.discovery.com
- 3) WWW.USNEWS.COM
- 4) www.lowimpactliving.com

Greening the Office:

1. Cut Down on Office Transportation

American workers spend an average of [47 hours per year](#) commuting through rush hour traffic. This adds up to 3.7 billion hours and 23 billion gallons of gas wasted in traffic each year. We can ease some of this strain by carpooling, taking public transit, biking, walking, or a creative combination thereof.

Carpools and public transportation benefit both the environment and your employees. Here’s some ideas:

1. Offer **carpool-matching services** that allow employees to find co-workers that live near them.
2. **Encourage biking and walking** to work by providing bike racks outside of the office.
3. Provide **parking incentives** such as closer/shaded parking spots for **carpoolers**.
4. Consider **telecommuting** to allow employees to work from home one day a week work. *Instant messaging, video conferencing, and other innovative workflow tools make effective telecommuting a reality. If you can telecommute, hold phone conferences, take online classes, or otherwise work from home, give it a try. It’ll save you the time you would have spent on the trip as well as sparing the air. As a bonus, you get to work in your pajamas. Telecommuting works for 44 million Americans.*
5. What about a workweek with **four 10-hour days** instead of five eight-hour days? *Consider the possibility of working four ten-hour days instead of five eight-hour days (a consolidated workweek), cutting the energy and time spent on commuting by 20% and giving you some lovely three-day weekends. With the struggling economy, it is also beneficial to reduce the workweek to 32 hours and close the office on Fridays – you can help save the environment – AND – help to get through this economy at the same time!*

2. Monitoring Lighting Usage & Office Energy

Lighting

We obviously can't work without lighting, but we can do our best to cut down on unnecessary use of lighting. Lighting reduction options:

1. Light exit signs with lower energy bulbs like compact fluorescent lamps (CFLs), light emitting diodes (LEDs), neon lighting or electroluminescent lighting technology.
2. Replace old fluorescent lighting fixtures using **T-12 lamps** with **T-8 fluorescent lamps** for better color, less flickering and **20 percent less energy use**. Some incandescent light bulbs may contain mercury, so remember to dispose of both properly at your local household hazardous waste facility.
3. Check out occupancy sensors for areas of the office that aren't used as much, such as the break or conference room. Getting lighting motion sensors for offices, conference rooms & bathrooms just makes sense – there is no reason for the light to be on when no one is in the room.
4. **Make sure you're using compact fluorescent or LED lights throughout the office.** CFLs use $\frac{1}{4}$ the energy and last up to 10 times as long as standard lights. LEDs are even more energy-efficient. If your building is in charge of the lighting, talk to your building manager and make sure that they understand the money they can save from buying CF or LED lights– they may not care about the environment, but they do care about cold, hard cash!

Keep Your Cool....And Your Warmth...

According to a TIME magazine article, heating, cooling and powering office space are responsible for almost **40 percent of carbon dioxide emissions** in the U.S. and **eat more than 70 percent of total electricity usage**. You can save about **10 percent** on your electricity bill by just adjusting that thermostat by **one or two degrees**. Other ideas:

1. Use **automatic setback thermostats** to adjust the temperature for weekends and evenings. If you don't have automatic thermostats, make sure that someone in the office is in charge of turning them up or down when they leave for the day to avoid cooling or heating the office all night long.
2. Consider **outside air economizers** that use outside air to cool down buildings when the air outside is cooler than the air inside.
3. Think about **solar shading** to reduce the amount of heat from the sun that penetrates your office building.
4. **Keep the blinds closed** to conserve heat in winter and keep it out **during summer**. This is especially important with our Las Vegas summers!

3. Make the Most of Office Equipment

Turning Off Office Equipment

According to the Department of Energy, office equipment accounts for **16 percent** of an office's energy use. The use of computers, printers, copiers and fax machines adds up, but simply turning your computer's sleep mode on when you're not using it can save energy (screen savers are energy wasters, not savers).

In addition to putting your computer to sleep when you are away:

1. **Turn the machine off when you leave the office for the night.** Make sure that all your employees know that this is mandatory – once it becomes habit – it becomes second nature to everyone and it is a huge energy saver!
2. **Activate sleep mode** for printers, copiers and fax machines so they'll sense inactive periods.
3. Consider **consolidating** these machines by purchasing a machine that performs multiple office functions.

If you're looking to purchase new office equipment, look for [ENERGY STAR](#) qualified products to cut down energy use and pollution.

4. Office Supplies, Paper Usage & Office Recycling

Not So Much Paper

According to the Environmental Protection Agency, **each employee** in a typical business office generates **1.5 pounds of waste paper per day**. There are several ways to cut down on how much paper you use, including:

1. Make hard copies only when necessary.
2. View documents on your computer instead of printing them out.
3. Use a stick-on label on the first page of a fax instead of a full cover sheet.
4. **Reuse paper** that only has printed material on one side.
5. Make sure all printers and copiers are set up to print on **both sides of paper**.
6. Add the **“green note” on your email signature** which reminds people to *“think about the environment before you print this email”*...it really does make people think twice about printing it.

When buying paper:

1. **Buy recycled paper** made from a high percentage of post-consumer recycled content.
2. Look for paper that is processed **chlorine free (PCF)** instead of totally chlorine-free (TCF) because its produced without elemental chlorine or chlorine derivatives.
3. Use **unbleached** and **uncolored** paper. If you need to use colored paper, use pastel colors.
4. Buy products in **bulk** to minimize packaging.

Make sure employees have bins to [recycle paper](#) at their desk. **Remember that the easier it is for all of us, the more inclined we are to do it.**

If your office ships packages, reuse boxes and use shredded waste paper as packing material.

Buy Only What You Need

- Plain and simple—**don't over purchase**.
- However, when buying items that you use daily or in large quantities, consider buying in bulk. You will save money and packaging. Consider splitting bulk purchases with

neighbors or friends to get that savings but not the full quantity of the purchase. Sometimes we can't always use 50 rolls of toilet paper!

Recycle, Recycle, Recycle!

- Several companies in Las Vegas offer recycling, reuse and proper disposal options for over 250 different materials. Everything from plastic bags to construction materials.
- Remodeling? Don't forget to look for recycling and reuse programs for your household items—windows, doors, tile, etc. New technology has enabled some companies to recycle old porcelain toilets and tubs into beautiful counter tops and tile.
- Don't forget the last step in the recycling loop—buy recycled! In order for recycling to be sustainable, we need to purchase recycled-content materials! Look for and purchase post-consumer recycled content packaging and products whenever possible.

Those Bottled Water Habits

Ditch the bottled water habit. Americans throw out over **35 BILLION plastic water bottles** every year. **Offices are major offenders in this area.** Just think how many water bottles your office uses in a year! You can sign up for a water delivery service, or get a big Brita filter, and have everyone use a ceramic or glass cup. This is an easy thing to do and has a big impact! We don't think your clients and guests will mind either – they will probably appreciate your efforts to go green!

Office Supplies

Pens and pencils can also be made of recycled materials, and refillable pens and markers are preferable to disposable ones. Use **biodegradable soaps** and **recycled paper or cloth towels** in the bathroom and kitchen, and provide **biodegradable cleaners** for the custodial staff. **Recycling printer cartridges** is often free, and recycled replacements are cheaper than new ones.

The following links are just a few examples of places to go for green office supplies.

**Walker Engineering does not endorse any of the businesses listed here.*

- [Ahrend](#) Eco-friendly office furniture
- [AusPen](#) Refillable white board markers & links
- [EcoWork](#) eco-friendly office furniture
- [ForestChoice](#) pencils from certified-sustainable cedar
- [Geami](#) eco-friendly packing and shipping materials
- [The Green Office](#)
- [GreenWorks](#), supplying used furniture to offices and schools in the UK
- [Herman Miller](#)
- [Krug](#)
- [Legaré Furniture](#), office furniture made with sustainable materials
- [The Waterless Printing Association](#)
- [Remarkable](#)
- [Springbrain](#)
- [Steelcase](#)
- [Treecycle Recycled Paper](#)
- [Wilkhahn](#) office furniture

5. Green your Workspace & Lunchtime

Redesign the Workspace

Greening the space in which you work has almost limitless possibilities. Start with **good furniture, good lighting, and good air**. Furniture can be manufactured from recycled materials as well as recyclable. Herman-Miller and Steelcase are two groundbreaking companies that have adopted the Cradle-to-Cradle protocol for many of their office chairs. Incandescent bulbs can be replaced with compact fluorescents and there is an ever-growing selection of high-end LED desk lamps that use miniscule amounts of energy. Not only is **natural daylight** a free source of lighting for the office, it has been proven to improve worker productivity and satisfaction (as well as boost sales in retail settings). Workspace air quality is also crucial. **Good ventilation** and low-VOC paints and materials (such as furniture and carpet) will keep employees healthy.

Lunch Time

Bringing lunch to work in **reusable containers** is likely the greenest (and healthiest) way to eat at work. Getting delivery and takeout almost inevitably ends with a miniature mountain of packaging waste. But if you do order delivery, join coworkers in placing a large order (more efficient than many separate ones). Also, bring in a **reusable plate, utensils, and napkins**. If you do go out for lunch, try biking or walking instead of driving.

6. Put Someone in Charge & Spread the Word

Have Someone Watching out For Your Office Green Efforts

Hire an energy manager or transportation coordinator. It may be beneficial to have someone in the office whose sole job is to set up carpooling or keep track of office recycling and energy use. The money spent on paying somebody to hold this position will be well worth it when you get your utility bill and help save our planet.

Get Others in on the Act

Share these tips with your colleagues. Ask your boss to purchase carbon offsets for corporate travel by car and plane. Arrange an office carpool or group bike commute. Trade shifts and job duties so that you can work four long days instead of five short ones. Ask the office manager to get fair trade coffee for the break room and make sure everyone has a small recycling bin so that recycling is just as easy as throwing paper away. Ask everyone to bring in a mug or glass from home and keep some handy for visitors so that you reduce or eliminate use of paper cups.

Greening your Home:

1. Buy in Bulk

The Scenario:

- In almost every situation, the more of a product you buy, the less cost you'll endure per unit because the manufacturer or retailer will give you a bulk price rate.
- Individual packaging (most likely a form of plastic) is either difficult to recycle or not recyclable.
- Buying in bulk means less trips to the store or online orders, saving gas money and carbon emissions.

The Significance:

A *Real Simple* Magazine experiment in 2003 found that purchasing 15 common items at a warehouse store in bulk as opposed to the supermarket saved \$58.74 in Illinois and \$109.72 in New York (including a membership fee), and the major reason for the price discrepancy were the supermarket prices per state. It's safe to assume that doing a majority of your shopping in bulk would save **over \$200 on supplies** and **\$20 per year on gas**, regardless of where you live.

The Solution:

For goods that have a long shelf-life (i.e. anything that doesn't need refrigeration), opt for a larger quantity and recycle as much of the packaging as possible.

2. Reduce Food-Related Paper Use

The Scenario:

- Oil-based food stains are the easiest way to make your paper not recyclable; it's why you can't find recycling locations for paper towels or paper napkins.
- The average American family uses 1.5 rolls of paper towels each week.
- Brown paper bags have just as high of an environmental footprint as plastic bags when manufacturing and disposal are considered.

The Significance:

You'll be lucky to find paper towels for less than \$.75 per roll. That means you're paying at least \$4.50 a month for disposable towels, so cutting your use to one roll a month would save **\$45 per year**.

Paper bags are only about \$.02 per bag, but if you make two lunches every day, that's **\$14.60 per year** thrown into the trash after one use.

The Solution:

Use **reusable cloth towels** for cleaning the house and your spills, and throw them in the laundry instead of the garbage (the cost to wash towels will be negligible if it's done with the rest of your laundry). Check into **lunchboxes or plastic containers to carry your lunch**, which will be a one-time investment instead of constantly funding your disposable habit.

3. Use Rechargeable Batteries

The Scenario:

- Rechargeable batteries can be [recharged hundreds of times](#) without losing the ability to hold a charge, while single-use batteries are “one and done.”
- It’s easier to find recycling locations for rechargeable batteries instead of single-use batteries.
- In energy-draining devices like digital cameras, batteries may only hold a charge for a few hours of use.

The Significance:

The average family buys 32 batteries a year, and you may be able to find them for \$.50 apiece. You could probably get by on four rechargeables for the same purposes at \$2.50 per battery, and the charger should be about \$10. Add on an extra \$5 for energy costs to charge your batteries (assuming you unplug the charger when not in use).

This means switching to rechargeables will actually cost you an extra \$9 the first year, but you’re looking at potential savings of **\$11 per year** for who knows how many years afterward, depending on your battery use.

The Solution:

Even though you might spend a little more at the start, rechargeables are still the way to go when it comes to saving money and reducing waste in the long run. Shop around for deals on rechargeable batteries so you don’t get stuck buying cheaper alkalines at the last minute. Consider an [ENERGY STAR-qualified battery charger](#) so you’ll use less energy charging batteries.

4. Print Only When Necessary

The Scenario:

- It takes a gallon of oil to produce one ink cartridge, and we dispose of 13 every second.
- The typical person uses 1.5 pounds of paper every day, meaning you can go through a ream in just a few weeks.
- Through email and backing up files, you can access documents at the drop of a hat without a hard copy.

The Significance:

Ink cartridge costs will depend on your printer, but let’s say it’s \$60 for both your black and color ink. If you cut ink purchases from once every three months to once a year, that’s **\$180** in your pocket.

If you print three pages a day, that’s almost three \$8 reams of paper used in a year. Print three pages a month and that same ream will last 11 years. That’s **\$16** in just the first year.

The Solution:

Ask yourself before printing an email, work document or miscellaneous page, whether it can remain on your screen. If you do print, choose only the pages with text you need and print on both sides of the paper. When you’re out of ink look into cartridge refilling programs, and consider recycled paper for your next printing purchase.

Save A Tree

- Save paper, time and postage; pay your bills online.
- As the price of paper cards and postage increases, consider emailing e-cards. There are lots of fun and environmentally-friendly e-cards and options on the Internet.
- When printing documents, print on both sides of paper. You can cut your paper consumption in almost half. Besides, when printing out a 200 page report, do you REALLY need 200 one-sided pages?
- Email documents and information instead of printing and mailing them.
- Save documents on your computer or on a disk instead of in a print copy in your filing cabinet. You'll free up lots of space!

5. Upgrade to Energy-Efficient Lighting

The Scenario:

- Compact fluorescent lamps (CFLs) may cost more than incandescent bulbs, but they **save as much as 80 percent of the energy** used by incandescents and **last up to 10 times longer**.
- While incandescents are recyclable, finding a recycler is difficult because there isn't much value in the parts; several states and retailers offer CFL recycling specifically because they contain mercury.
- Light-emitting diode (LED) lamps are even more energy-efficient than CFLs and don't contain mercury, although they cost much more.

The Significance:

Let's say you want to change 10 light bulbs in your house. Incandescents will run you about \$.25 per bulb, while CFLs will be closer to \$2.50 per bulb. However, your \$22.50 in savings on bulbs will seem trivial when you consider those 10 CFLs could save **\$65.70 a year** and **\$360 in energy costs** over the life of the bulb.

The Solution:

CFLs can be plugged into pretty much any light socket in your house (if you are looking for dimmable lights, be sure to make sure you purchase the proper type of CFL). When they eventually do run out, make sure you recycle them to keep the mercury content out of landfills.

6. Utilize Public Transportation

The Scenario:

- Public transportation often relies on renewable energy, meaning costs aren't as reliant on the price of gas.
- Parking is more limited and expensive in the downtown area of any major American city.

The Significance:

In the most expensive cities in the U.S., you can get a one-way bus, train or ferry trip for under \$5 (and under \$2 once you're in town). You're probably driving 40 miles round-trip to visit the nearest major city, the equivalent of at least two gallons of \$3 (at least) gasoline. Factor in \$10 to park your car, any tolls to enter the city, mileage costs and wear and tear on your car, and you're looking at \$25 per visit.

This means you can save about \$10 per visit to a major metropolitan city by using public transportation. If you make one trip per month, that's **\$120 a year**. Imagine the savings if you do one trip per week!

The Solution:

Public transportation is pretty helpful and thrifty if your city has access to it.

7. Bag It Up the Green Way

- Plastic bags are getting the “thumbs down” in several communities around the country because of litter problems. When going to the store, consider bagging your own groceries in **cloth, reusable bags**. Many stores sell reusable bags and charge to provide plastic grocery bags. Save a plastic tree (and petroleum)—use a cloth bag!
- When walking your dog and cleaning up after then, use a **biodegradable bag** rather than a plastic bag.
- If you decide to use plastic bags, remember to **recycle them**.

8. Make Every Drop Count

- Turn off the water faucet when brushing your teeth. **Simple, but effective!*
- Use your dishwasher and washing machine only when they are full. Try to avoid small, partial loads.
- Compost food scraps instead of using your garbage disposal. You'll save gallons of water every time and have a great soil amendment for your garden.
- Clean your driveway or sidewalk with a broom instead of hosing it down with water. You'll save at least **80 gallons of water every time**.
- Don't use running water to thaw food.

9. Turn Up the Savings

- A few degrees can make all the difference in your energy savings and your wallet. In the summer raise your thermostat **two degrees**. In the winter lower your thermostat two degrees. You probably won't notice the difference, at least until your utility bill arrives!
- Use a **ceiling fan** to cool off a room or house. It consumes as little energy as a 60-watt bulb, which is about 98 percent less energy than most central air conditioners.
- Install a **programmable thermostat** to better regulate the temperature in your house through the day and night. Remember to recycle your old, mercury containing thermostats!
- When replacing an appliance, be sure to look for one that is more energy efficient. Always look for the **ENERGY STAR** symbol and compare water and energy usage to ensure you get the best product and environmental savings to suit your needs.

10. Green your Wardrobe

You might be amazed how sharp work clothes from thrift stores can look. If you buy new, get clothes made with **organic or recycled fibers**. **Avoid clothes that need to be dry cleaned**, and if they so demand it, seek out **your local "green" dry cleaner**.

11. Home Sweet Home

- Clotheslines are making a comeback—**Dry your clothes on the line** instead of in the dryer. They will smell better and you will save money (and get some exercise!).
 - Use **cloth napkins** instead of paper napkins. They can be used over and over again and thrown in with your weekly load of towels each week.
 - Make your own **less toxic cleaning alternatives** using baking soda, soap and vinegar. You will save money and your house won't smell like a hospital!
 - When repainting a room, be sure to look for **paint that is low VOC** (volatile organic compounds). Several manufacturers now offer VOC paints and they don't leave that paint fume smell!
 - Open the doors and windows to **let the fresh air in!** Indoor air quality is often times worse than the air outside. Open doors and windows daily to circulate fresh air in and germs and smells out.
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GOOD LUCK WITH YOUR EFFORTS TO GO GREEN – WE CAN ALL MAKE A DIFFERENCE TOGETHER!