

# GONE GREEN YET?

**Sustainability  
at the Office and at Home**





Dagher Engineering's office became one of the first in the country to receive **LEED Gold Commercial Interior certification**, from the nonprofit U.S. Green Building Council



# Efficient Fluorescents

**Cost:** \$6 per bulb

**Benefit:** Saves \$400 on electric bill annually

Dagher Engineering replaced conventional fluorescent bulbs with new, high-output T-5s, which are about 15% more efficient, saving about \$400 a year.



# Automatic Dimming System



**Cost:** \$20,000 to buy and install

**Benefit:** Saves \$1,400 on electric bill annually

Dagher Engineering installed a system that automatically dims lights based on the amount of natural light entering the space while maintaining a constant level of lighting. This system reduced lighting energy consumption by more than 50%, saving about \$1,400 annually.

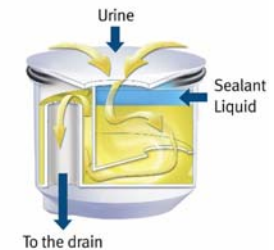


# Efficient Toilets

**Cost:** \$1,715 total for four dual-flush toilets and one waterless urinal

**Benefit:** Saves 38,000 gallons of water annually

Yes, employees were confused at first about the two buttons on top of the toilets. No, the waterless urinal doesn't smell bad. Dagher Engineering estimates they save a total of 38,000 gallons of water a year.



# Cooler Cooling System



**Cost:** \$8,000 to buy and install

**Benefit:** Reduces energy consumption by 75% compared with a conventional system

In an effort to reduce fan energy consumption, Dagher Engineering experimented with hydronic radiant cooling panels.

While the technology had been applied in Europe, it was a first in a New York office building with operable windows. The new system reduces energy consumption by 75% compared with a conventional system.



# Insulation Alternative

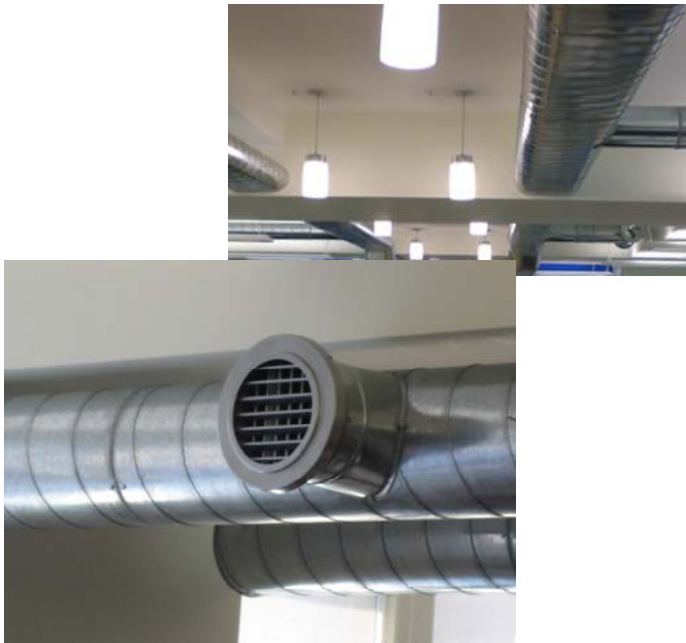
**Cost:** \$11,200 to buy and install denim jean insulation

**Benefit:** Reuses waste material

For insulation between offices and workspaces, Dagher Engineering used an alternative material made from denim waste, which costs about the same as the conventional itchy stuff and works just as well.



# Variable-Rate Ventilation System



**Cost:** \$25,000 to build and install.

**Benefit:** Reduces energy consumption by 50% compared with a conventional system

Dagher Engineering's ventilation system monitors carbon dioxide levels in the office and varies ventilation rates accordingly. Since the levels rise and fall in proportion to the number of people in the space, energy consumption was reduced by about 50% compared with a conventional system.



# Green Your Office



## What's the Big Deal?

A greener workplace can mean a lighter ecological footprint, a healthier and more productive place to work, and good news for the bottom line.



# Green Your Office: Work more, less energy



Optimize the energy settings for your computers and printers. This can be a big energy saver.

Use your computer's energy-saving settings and shut it down when you leave for the day

("standby" settings will continue to draw power even when not in use).



# Green Your Office: Don't be a paper pusher

When buying paper, look for recycled paper with a high percentage of post-consumer content and minimal chlorine bleaching.



## **The Facts of Office Waste**

Americans discard more than 4 million tons of office paper every year -- enough to build a 12 foot high wall of paper from New York to California.

## **Office Waste Tips**

When using the real stuff, print on both sides of the page when appropriate and use misprints as notepaper.

Try to choose printers and photocopiers that do double-sided printing.

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



# Green Your Office: Give the Earth a Break



The average American office worker uses approximately 500 disposable cups a year.

If 10 million office workers used their own mugs, we could save around 166 feet of landfill space per person per year - or a total of about 312,500 miles of trash a year.



# Green Your Office: Bag Your Lunch

**Save:** \$2,250 a year by bringing your lunch from home.

**Reduce:** 1.8 million tons of trash are generated from take-out containers every year.

Pack your lunch in reusable containers. You'll save money, time (no more waiting in line!), save resources and eat more healthfully.

If you do find yourself getting carryout, don't take the offered bags, and skip the plastic flatware if you can.



# Green Your Home: Put Your House on a Diet

**American homes consume around six times more energy than the world average.**

## TIPS:

Keep your house cool with natural ventilation instead of air conditioning.

Use in-room, ceiling, or whole-house fans to move air throughout the house.

Curtains or shades that Block sunlight during hottest hours of the day can help lower your cooling load.

Wrapping your hot water tank in an insulating blanket can save on power, both during the summer and winter.



# Green Your Home: Phantom Power



Last year in the U.S., electronic equipment in sleep mode used enough energy to emit about 4,000,000 tons of carbon. Right now this “phantom power” consumption accounts for 15% of your household power bill. The U.S. Department of Energy says it will reach 20% by 2010.

Plug all your electronic devices into power strips instead of an outlet. At the end of the day, flip the power strip off. It’s as easy as that.



# Green Your Home: A Bright Idea



If every American home replaced just one light bulb with compact fluorescent bulb, we would save **enough energy to light 3 million homes for a year**, more than **\$600 million in annual energy costs**, and prevent greenhouse gases equal to the emissions of more than **800,000 cars**.

Compact fluorescent bulbs last longer than conventional light bulbs and will save you \$30 or more on your electrical bill over the bulb's lifetime.



# Green Your Home: Breathe Easy

On average, indoor air is three times more polluted than outdoor air. This is due to volatile organic compounds “VOCs” that are often found in paint, sealants, glues, and some cleaning products.

Choose paints with a green seal for low VOCs. You’ll be amazed at how little odor they emit as you’re painting. (This includes nail polishes.)

Carpets and furnishings also emit VOCs so choose green to help keep your home air clean.

Use low VOC sealants in your home as you remodel or do repairs.



# Green Your Home: Clean for Green

If every household in the U.S. replaced just one bottle of conventional petroleum-based liquid laundry detergent with a “green” detergent, we could save 460,000 barrels of oil a year.

Conventional brand-name laundry detergents, dish soaps, and even bath and shower soaps are often petroleum based, can contain hazardous chemicals, and are not biodegradable. Switch to green cleaning products to cut down on your exposure to harmful substances, and give our water supply a break.



# Green Your Home:

Heating and lighting are big CO2 producers, but you can save in lots of little ways. When you save energy, you'll save money on your utility bill too.

## TIPS:

Run the dishwasher with only full loads, and let dishes air-dry.

Shut off electronics when you're not using them.

Raise or lower your thermostat a few degrees depending on the season.

Clothes driers gobble up a lot of power, so line drying can be a great energy saver.



# Green Your Home: Eat Fresh



Buy produce from local farmers. Your foods will be fresher, and they won't have made a gas-guzzling cross-country journey just to get to you.

*LocalHarvest.com* lets you search for farms and farmers markets by zip code.



You can also look for locally grown produce and other foods at your grocery store. Buying locally will encourage your retailer to stock more home-grown



# Green Your Home: Get Off Mailing Lists

**Nearly 62 million trees are destroyed and 28 billion gallons of water are used to produce catalogs each year.**

Get e-mails instead of paper catalogs.

For a \$20 subscription fee, [Greendimes.com](http://Greendimes.com) will remove your name from more than two dozen junk mailing lists, set up a database online for your catalog subscriptions and plant five trees in your name.



# Green Your Home: Get Off Mailing Lists



Replace your water-hogging showerhead with one that has a lower flow. The standard showerhead spews 4.5 gallons-per-minute, but by replacing it with a 2.5-GPM head, you could save 20,000 gallons of water per year.

Another easy water saving tip is to put a jar or jug filled with water in your toilet tank. This reduces the amount of water used to flush your toilet, and works great with older toilets.



# Gone Green Yet?

To calculate your carbon footprint (how much carbon dioxide you generate in a year), go to [www.earthlab.com/carbonprofile](http://www.earthlab.com/carbonprofile), or [www.lowimpactliving.com](http://www.lowimpactliving.com)

Buy Renewable Energy Certificates (RECs) to offset the carbon that you produce. Learn more at [www.green-e.org](http://www.green-e.org)



# Gone Green Yet?

If all this seems like it's a lot to think about, don't worry. Even the smallest steps you can take – like replacing a lightbulb – can make a huge difference.

