



The ULS Report™

Helping people Use Less Stuff™ by conserving resources and reducing waste.

We're Back Because It's Once Again Time to Spring into Action

We stopped publishing *The ULS Report* eight years ago, because we thought there wasn't much more to say about the need to reduce waste by sharply reducing material and energy consumption. We were wrong.

Ironically, we were right about three trends that should have made us think twice before we so smugly called it quits. These predictions, which we made in 1998, have come true:

1. No matter how much Americans recycle, the amount of waste being sent to landfills will not decline. It hasn't. At about 160 million tons, it's the same amount as it was 10 years ago, since population and consumption growth have offset gains in recycling and composting.
2. The growth of the Chinese economy will significantly increase the consumption and costs of energy and raw materials. We all know how expensive gasoline has become in the last few years. Also, the prices of metals such as copper and steel have at least doubled or tripled during this time period.
3. Chinese economic growth would also play a major role in the potential for climate change, due to rapidly increasing greenhouse gas generation. Today, China has surpassed the United States to become the world's leading producer of carbon dioxide emissions. Further, its emission rate is growing 8-10 times faster than similar growth in the West. There are claims being made that, by 2030, China alone will surpass today's total global greenhouse gas generation level.

What do we do now? Thanks to both growing awareness of global climate change, and the high cost of energy, doing what's best for the ecology will also help you do what's best for your family's economy: Reduce your personal energy consumption!

Surprisingly, it's not that hard to do. Here are 10 great energy-saving tips tied to what you're doing now, in Springtime:

- Dust off the coils on major appliances such as refrigerators and air conditioners. Clean coils mean more efficient equipment that also lasts longer with less maintenance. You save in both the short and long run.
- Change the filters on your furnace and AC units. Cleaner filters are more efficient, keeping down energy costs while potentially increasing the service life of your systems. When you consider that the Department of Energy (DOE) reports that over 40% of home energy consumption is for heating and cooling, the savings can really add up!
- Seal and caulk doors and windows. If you have access to ductwork, feel for leaks around seams when the AC is running. Caulk or tape them. According to the DOE, inefficient ductwork is the biggest energy waster in your home.
- If you're building a new home, the DOE also reports that poor design and installation of HVAC equipment can increase energy costs by up to 30%. To ensure an efficient system, review the Model Energy Code with your contractor. It can be obtained from the Council of American Building Officials by calling 1-703-931-4533.



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- Consider doing what Europeans do. Use motion sensors to turn on and off outdoor, garage, bathroom, and closet lights. It saves money and energy. Also, having outdoor lights on motion sensors can be a security advantage, as they act as theft deterrents.
- Open windows whenever possible, and keep the thermostat at 75 degrees or above. Leaving home for a while? Set it to 80-85 degrees. Also, try turning off the AC, opening windows and using the Fan Only setting. You may be surprised at the cooling power of simply keeping the air moving.
- Add shade trees, especially on the south and west sides of your home, to help reduce cooling costs by cutting direct sunlight. (Since the leaves will fall, your Winter light will increase, so your heating bills won't go up.)
- Have your family's bicycles, skateboards, roller skates and scooters cleaned, oiled, serviced, and tire pressures checked. Get those non-fuel burning transportation systems ready to go!
- Reward family members for walking and taking public transportation by putting some of the gas money you save into savings accounts for your kids. Help them see how saving valuable environmental resources also saves financial ones!
- Clean your outdoor grills to make them work faster and more efficiently. Before buying cleaners, try using a stiff brush. If you're using gas check for leaks, and replace hoses and fittings as necessary. Simply spray a little soapy water on them. If bubbles start to grow, you've got a leak.



There are some simple things you can do to reduce water and material usage as well. As with energy, there are both significant environmental and economic savings to be had. Here are 10 more ideas perfect for Spring:

- Start a compost pile or get last year's into shape. Composting is a great way to produce organic mulch and fertilizer, saving you the cost of buying these items and reducing runoff from chemical products.
- Plant a vegetable garden. Growing your own produce saves you money and cuts energy costs by eliminating the transport of produce from far-away areas to your local stores and then to



your home. Fresh vegetables are so good that your kids may actually like them. And the price just can't be beat!

- Need a new lawn mower or similar equipment? Before you buy, see if you can borrow or "rent" from a neighbor. Better yet, why not pool resources and purchase these items as common property with your neighbors? Simply work out use, storage and maintenance schedules. Your cost of new equipment will be shared, and the number of new machines that need to be produced will decline.

This thinking applies to all types of equipment – rakes, shovels, hoes, saws, power tools, sewing machines, etc. You only use these items a few hours a week, at most. Why pay to own them all the time?

- Check your hoses, sprinklers, fittings and faucets for leaks. Water is both a precious and expensive commodity. Usually, an inexpensive and simple fix, such as changing a washer, will do the trick.
- If you have an underground sprinkler system, have it serviced and checked for leaks. Also, turn the system off during rainy periods. Why pay for, and waste, water that's not needed?
- Clean out your closets. Donate old clothes and other items to your church, community centers, Salvation Army, Purple Heart, etc. You'll get a tax deduction and those less fortunate won't need to worry about buying new items.



- Clean out your basement. Sell or donate old electronic equipment. Your old cell phones are valuable! Go to www.flipswap.com or www.oldphonesforcharity.com to find out how to keep these out of the landfill while either making or donating some money to charity. Also, retailers like Costco, Best Buy and Circuit City have trade-in and recycling programs for all types of electronic equipment. In many cases, you can do all the work online.

- Clean out your attic and garage. Hold a yard sale. Reduce clutter and earn some money for stuff you no longer need. By purchasing your unwanted items, you'll help others save money and reduce purchases of "virgin" products, too.



- Clean your gutters. Clogged gutters create all kinds of expensive problems, like flooded basements and the resulting ruined rugs and furniture. Dump the leaves and other organic debris in your newly activated compost pile. (If the leaves are wet, great! If dry, add some water and stir.)
- Clean out your cupboards. Reuse an old cardboard box or large shopping bag to keep all of your paper and plastic bags in one place. That way, you'll remember to reuse them and reduce the need to buy new trash, sandwich or utility bags. If they are beyond reuse, recycle them. Most communities take paper bags in their recycling bins. Most communities also have plastic bag take-back centers. To find those near you, go to www.plasticbagrecycling.org.

That wasn't so hard, was it? You saved a lot of money and reduced a lot of waste. And, your home & yard look great!



ENVIRONY

Among the many terms coined by sociologist Robert K. Merton, "unintended consequences" is among our favorites (the other being "self fulfilling prophecy"). There is even a Law of Unintended Consequences which states that for any action, there will always be resulting consequences that were not intended to occur.

We've coined a term that describes this phenomenon in the world of using less stuff: environy, which is short for environmental irony. An environy is any activity intended to reduce environmental impacts, but which in actuality produces negative impacts that are equal or greater than those being reduced.

Here is our first example of an Environy. We call it:

Simply A-Maize-ing

With the desire to reduce consumption of fossil fuels, Americans are increasingly turning to ethanol, which is made from corn. As demand for corn increases, so does the price farmers receive for it: \$4 per bushel, double the \$2 per bushel in 2005. This rise in price has naturally caused farmers in Illinois, Iowa, Minnesota and the Dakotas to increase the amount of corn they grow, either by replacing other crops or by cultivating previously unused land. With more corn comes the use of more nitrogen-based fertilizer.



The result has been a large increase of nitrogen runoff into the Mississippi River, where it makes its way into the Gulf of Mexico. Once in the Gulf, the fertilizer causes explosive growth of algae, which then dies and sinks to the bottom, sucking up oxygen as it decays. The resulting 7,900 square mile "dead zone" is so depleted of oxygen that fish, shrimp and crabs suffocate.



The New Orleans-based Gulf Restoration Network warns that if the corn boom continues, the Gulf of Mexico could see an "ecological regime change." The fear is that the zone will grow so big that most sea life won't be able to escape it, leading to an even bigger die-off.*

The lesson here is an interesting one. Many times, substituting one material (ethanol) for another (gasoline) does not produce the intended results. It's better to find ways to reduce the underlying behavior, in this case fuel consumption, than to substitute one product for another. (See the Editorial below for a parallel example.)

*Based on an Associated Press story written by Henry C. Jackson and published on December 17, 2007.



Reduction Roundup...

Concentrate! – Procter & Gamble has announced that it is completely switching its Tide, Era, Cheer, Dreft and Gain laundry detergents to 2X concentrated formulations, meaning that the same number of loads can be washed with half the amount of detergent. Their literature states that if all Americans switched to 2X concentrates, 230 million gallons of water, 190,000 metric tons of carbon dioxide, 70 million pounds of plastic, and 5 million gallons of diesel fuel would be saved each year. (www.pg.com)

Speaking of clean and concentrated, Shaklee's Basic H2 Organic Super Cleaning Concentrate turns 16 ounces of product into 48 gallons of three different cleaners. The product is also double concentrated, nontoxic, and biodegradable. (<http://www.shaklee.com/00015.html>)

Slipping Away – Speaking of detergent bottles, Fresh Pak Corp. has recently introduced Eco-Sheet, a plastic slip sheet that replaces wooden pallets. Because they're so much lighter and smaller than pallets, slip sheets can cut

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It's Time for All of Us to Get Involved

By Robert Lilienfeld, Editor

As concerns over global ecological degradation increase, Americans are looking to take action to protect their local environments. One community, San Francisco, and one retailer, Whole Foods, have decided to reduce perceived environmental impacts by banning or eliminating plastic bags in favor of paper ones. Unfortunately, these actions will not eliminate the problems they are intended to solve. Even more concerning is the fact they may actually exacerbate them.

The Big Misconceptions

These decisions suffer from two widespread, but erroneous, beliefs about the environmental effects of grocery bags.

The first misconception has to do with facts. Major issues facing the global environment include climate change, pollution, and resource depletion. The truth is that when it comes to the causes of these problems -- energy consumption and greenhouse gas generation, waste creation and resource usage -- scientific evidence points to plastic bags as being environmentally preferable to paper ones.*

This evidence is part of the scientific approach known as lifecycle analysis, which determines the full impact of different materials or products across every phase of their life cycle. Sometimes the results can be surprising. For example, plastic bags are often cited as being a source of energy depletion because they are made from fossil fuels. Ironically, full impact assessments indicate that plastic bags consume far less energy than do paper bags during the lifecycle of production, transportation, use and disposal.

The second misconception has to do with focus. Placing so much emphasis on grocery bags takes public attention away from the real culprits behind our global environmental woes: increasing worldwide material and energy consumption caused by growing populations and economies. In fact, research indicates that up to 99% of environmental burdens created by retail purchases are not caused by shopping bags, but rather by the stuff put in those bags and the energy it takes to create, transport, and store that stuff!

Thus, by concentrating "green" efforts on paper vs. plastic bags and expecting government and business to take appropriate actions, the public is led to believe that environmental problems are being solved without the need to become significantly involved. Such complacency is dangerous, as

it inadvertently relieves individuals of the responsibility to reduce their own consumption of materials and energy.

The Local Picture

On the local level, however, there is a problem in which plastic bags play a role: litter. Their widespread use and light weight do cause them to blow around roadways and waterways, creating unsightly litter and pollution potential.

Let me speak directly to the plastic bag industry: You have developed a program to encourage greater recycling. If, as you say, plastic bags are too valuable to waste, get that message out broadly and make recycling more accessible to the public! Collaborate with local authorities and businesses to ensure that recycling is effective in areas where it is legislated. Work with retailers and local governments to share your knowledge of recycling best practices. Help them educate consumers about available in-store recycling programs. Motivate the public to participate in these programs.

As you learn, create and share model recycling programs, awareness campaigns and legislation that can be successfully implemented nationwide. In so doing, both plastic bag litter and the temptation to pursue plastic bag bans will diminish, while the collection and recycling of those valuable bags will increase -- just as it has for newspapers, metal cans and beverage containers.

The Bottom Line

Banning bags of any type will not produce the intended results and will take our eyes off truly significant environmental problems related to resource consumption and depletion. To conserve energy and reduce waste, politicians, producers and retailers must base their environmental decisions on sound science and lifecycle thinking rather than on ideological arguments.

Consumers have a major role to play as well, by remembering to implement the three R's: reduce by doing more with less stuff, fewer bags and fewer trips to the store; reuse bags as many times as possible; and after the useful lives of your bags have ended, recycle them.

It's time for all of us -- individuals, institutions and industry -- to take responsibility for making it happen.



* There are at least three peer-reviewed studies that point to the reduced environmental impacts of plastic vs. paper bags. See *Review of Research Comparing the Environmental Impact of Paper vs. Plastic Bags* at www.use-less-stuff.com.

Reduction Roundup...

transportation costs by up to 25%. Further, Eco-Sheet is made from at least 95% recycled high density polyethylene (HDPE). The source of this HDPE? The used detergent bottles just mentioned! (www.freshpakcorp.com)

Clean Sweep – O Cedar’s Power Corner brooms hold their shape, in part because they’re made from recycled PET. O Cedar sells enough of these brooms to keep 60 million PET water bottles out of landfills annually. (www.ocedar.com)

Bright Idea – Sylvania has just introduced Micro Mini compact fluorescent light bulbs (CFLs). Each small 13 watt bulb gives off as much light as a traditional 60 watt incandescent bulb and saves about \$56 in energy costs during its comparatively long seven year life. Unlike earlier CFLs, Micro Minis also provide lighting that is similar in color to incandescent bulbs. (www.sylvania.com)

Clear the Air – HON, an office furniture company, has introduced Nature Core fiberboard partitions. Made from kenaf, a fast-growing plant related to cotton and okra, the sound-blocking panels significantly reduce airborne VOC emissions and are naturally fire retardant. (www.hon.com)

In the Chips – Frito-Lay has announced that its new Modesto, CA Sun Chips plant will be solar powered. The company, which says that it has been committed to sustainable manufacturing for the last 15 years, has managed to reduce water consumption by 3 billion gallons, and natural gas consumption equivalent to heating 200,000 homes, annually. (www.sunchips.com)



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