



O.U.E. Update

A Publication of Organizations United for the Environment

The Party's Over and It's Time for Conservation

Not too long ago in the United States, most families, aside from the rich ones, would have considered themselves reasonably well off if they owned a small or medium size house, a car or two, and enough income to keep everyone fed, dressed comfortably within the limits of current styles, educated, and healthy. Since those days, however, two powerful changes have occurred that have transformed our expectations and needs. The first of these has been the sustained economic growth that since 1970 has more than doubled the average *real* income (adjusted for inflation) families have to spend. Second, as family incomes grew we Americans went on a buying spree resulting in traffic congestion everywhere and the need for so many of us to have sprawling, energy-hogging houses. In recent years, this vast and unprecedented level of consumption has driven us to spend more than we make. In fact, in 2005, U.S. families spent more after-tax income than they actually received, resulting in the first "negative savings rate" since 1933.

Why would we, though we're the richest nation the world has ever known, be spending more than we take in? The answer is importantly a result of what we might politely call the corporate "sales effort." In 2005, expenditures on advertising in the U.S. were \$271 billion, roughly five times the level, again in real terms, of those expenditures in 1970. For a long time, as we Americans increased our levels of spending, more and more of what we bought was simply unnecessary, and that is why a more frantic sales effort was needed. According to one estimate,* by 1997 we were confronted each day with over 3,000 ads – the number is much larger now and growing — a literal cloudburst of doubtful claims, half truths, and outright lies about the stuff we need in order to "make do." A major consequence of the higher income, and the gathering storm of the ad campaigns, is that we became ever more addicted to bigger houses, more cars, more food, and more of everything else. As another measure of the gargantuan level of our spending, in 2007 Americans made up slightly over *four per cent* of the world's population but we accounted for about *twenty per cent* of the world's total spending.

Here is our situation, in a nutshell: our consumption habits, besides wiping out our savings, are assaulting our habitat; our economy is crucially dependent on petroleum and the world is running out of it; and the explosive growth in many economies in the developing world, most notably India and China, has increased the demand for everything. The current inflation in the U.S., for instance, is being fueled principally by the growing world demand for energy and agricultural products. Furthermore, the greater political and economic power of India, China, and the European Economic Union, along with the increasing independence of Latin American countries, will make it more and more difficult for Ameri-

cans to continue to gobble up one fourth of the world's output. All this means that, aside from the rich among us, we have to figure out how to be content to live more like the majority of Americans of the 1970s, who with half as much income still had enough to live what they considered a reasonably good and healthy life.

Our point is: The party's over. The time has come to back away from the trough with due deliberate speed.

How do you become a "conservationist"? To begin to answer this question, we will provide some specific and then more general ways that individuals and families can develop new habits in their home to use less of everything, and especially energy. We first will describe several conservation measures that are accessible to all families because they are free or relatively inexpensive and can thus act as a first line of defense against the coming leaner times. Indeed, as you read down our list you will see that you can begin to implement many of them today, without waiting for a government program or for a bank loan. Pricier conservation measures, and a second line of defense, are such things as better insulation or more efficient appliances that have quick pay-back periods. They also can often be subsidized by utility or government incentive programs.

Finally, we provide "a guide to energy accounting" because energy costs are such a substantial part of everybody's budget and prices are now skyrocketing for oil, gas, and electricity. This guide, prepared by an environmental consultant, will allow you to record your family's energy usage over the course of a year to give you an idea about which conservation measures will provide the quickest and greatest savings. We urge you to take a close look at this guide and then begin to measure your energy usage with the help of a worksheet accessible through an on-line address provided in the article.

In truth, it's time to start another kind of party, one where we can enjoy the simple pleasures of having enough for a decent life with-

OUE to Fund Two Energy Audits

OUE has contracted with our conservation consultant, Solair Energy, to carry out energy audits of two homes in the region. We have chosen Bucky Ziegler, from Limestoneville, owner of Paradise Valley Organic Farm to receive one of the grants from OUE to pay for the audit. We will finance a second audit, and if your family has a moderate income and you're interested in being considered, please send us an email. ♦

out the pain of knowing that we are spoiling our habitat and gradually suffocating ourselves with things we don't really need. Let's begin to admit the truth in the words of an ancient Chinese philosopher, Tao Te Ching, that "...He who knows that enough is enough will always have enough," and with these ideals in mind, let the party begin. ♦

*This estimate comes from an excellent video on advertising and its effect, Sut Jhally, *Advertising & the End of the World*, Media Education Foundation, 1997.

How You Can Conserve Energy Resources at Home

A good way to begin to "use less" is to start with energy conservation at home, then go from there to your vehicle, your office, and all the various ways that you use up resources. The internet makes accessible countless web sites that describe ways that you can cut back your consumption of energy. For those with computers, a good place to start is "A Consumer's Guide to Energy Efficiency and Renewable Energy," from the U.S. Department of Energy at www.eere.energy.gov.consumer. This web site provides a comprehensive list of ways to save energy in every part of the house and when you use your vehicles. Another place to look is on OUE's web site, www.ouenews.org, where we have listed a few links for your consideration. As a good example of the kind of brief, but quite useful kinds of lists you'll find on the internet, we have taken the one below from the web site of the Alliance to Save Energy, at www.ase.org. If you are not already a conservationist you can use one or more of these lists to start being one today!

No Cost Ways to Conserve

Turn off everything not in use: lights, TVs, computers, etc. Use less.

Check the furnace or air conditioner (AC) filter each month, and clean or replace it as needed. Dirty filters block air flow through your heating and cooling systems, increasing your energy bill and shortening the equipment's life.

During hot months, keep window coverings closed on the south, east, and west windows. In winter, let the sun in.

Glass fireplace doors help stop heat from being lost up the chimney. Also, close the fireplace damper when not in use.

Activate "sleep" features on computers and office equipment that power down when not in use for a while. Turning off computers each night do not wear out those that are less than three or four years old.

When cooking, keep the lids on pots. Better yet, use a microwave oven instead.

Dress appropriately for the weather, and set your thermostat to the lowest possible comfortable setting. On winter nights, put an extra blanket on the bed and turn down your thermostat more.

In summer, use fans whenever possible instead of AC and ventilate at night this way when practical. Using fans to supplement AC allows you to raise the thermostat temperature, using less energy.

About 15 percent of an average home energy bill goes to

heating water. To save hot water, take five-minute showers instead of baths. Do only full loads when using the clothes washer or dishwasher.

Switch to cold water washing of laundry in top loading, energy-inefficient washing machines to save energy and up to \$60-65 a year. Use detergents formulated for cold water, because they get clothes just as clean.

Lower the temperature on your water heater. Manufacturers typically set them at 140 degrees, but 130 degrees will serve all household needs.

Only heat or cool the rooms you need—close vents and doors of unused rooms.

Low Cost Ways to Save Energy

Install low-flow showerheads and sink aerators to reduce hot water use.

Seal and weather-strip your windows and doors to ensure that you're not wasting energy on heat or air conditioning that escapes through leaks to the outdoors.

Use a hot water tank insulation wrap, and add pre-cut pipe insulation to exposed pipes going into your water heater—it is cheap and easy to install. Both have quick paybacks.

Insulate ducts to improve your heating system's efficiency and your own comfort.

Rather than duct tape, use mastic (a gooey substance applied with a paintbrush) to seal all exposed ductwork joints in areas such as the attic, crawlspace, or basement.

Storm windows can reduce by 25-50 percent heat lost during the winter. As an alternative, you can improve your windows temporarily with plastic sheeting installed on the inside.

When buying new products, look for the ENERGY STAR® label, found on more than 40 different products such as TVs, furnaces, cell phones, refrigerators, air conditioners and more.

Incandescent light bulbs are outdated; 95 percent of the energy used goes to heating the bulb, adding unwanted heat in the summer. Replace your five most used light bulbs with ENERGY STAR compact fluorescent bulbs. These light bulbs use two-thirds less energy and last up to 10 times longer. Use dimmers, timers, and motion detectors on indoor and outdoor lighting.

Consider safer, more efficient ENERGY STAR torchiere lamps rather than halogen torchieres, which can cause fires. Halogen bulbs are expensive to use. ♦

A Note on Recycling

An old saying from environmentalists is to "Reduce, Reuse, and Recycle." Our not focusing on the latter two in this issue doesn't mean that we discount their crucial importance. Between 1990-2001, according to www.zerowasteamerica.org, non-hazardous waste in the U.S. increased from 247 million tons of waste in 1990, to 409 million tons in 2001. In other words, without more recycling, conservation efforts will be overwhelmed; so, recycle while you conserve. ♦

Energy Accounting – The First Step to Efficiency and Savings

The following article was written by Mike Molesevich, an energy and environmental consultant from Lewisburg, whose email address is: mike@menviro.com. We have his permission to include this article with only minor editing, and refer readers to his web site for a copy of the energy worksheet mentioned in his article.

What is the first step to control or reduce rising energy costs in your home, business or vehicle? Does it cost more to heat your home or to fuel your vehicle? Whether you want to save energy, control or decrease energy costs, diminish your part of global emissions, or reduce your bottom line to increase company profits - the first step is the same.

To know how much energy and money you can save, you need to know how much energy you are using and money you are spending. Some call it energy accounting, utility tracking, establishing a baseline, energy record keeping, or just good business. There are several ways to track your energy use/costs whether you are a homeowner, small business, manufacturer, or non-profit institution.

Computers and internet have made this task easy. If you are a PPL Electric customer, access the PPL website for your electric usage and costs. Have information from your electric bill to access www.pplelectric.com to set up your user account. Once logged on, you can review current and past electric usage and patterns. Other energy suppliers will provide their customers a printout of previous electrical or other energy usage, but you must request the information. Use computer spreadsheet software, such as Microsoft Excel, to set up a spreadsheet to track energy use and expense. You can also go to www.menviro.com/Articles.htm to download our sample Excel spreadsheet.

With the spreadsheet in hand, change, delete, or add column headings on the type of energy (fuels) you use. Your home or business may be all-electric, or you may heat with fuel oil, natural gas, propane, wood, or coal. Add non-energy utilities such as water and sewerage bills since we use energy to heat water, and higher water consumption leads to higher energy and sewerage bills. Track gasoline purchases for your vehicle(s). Completely fill your gas tank and reset/record your trip mileage counter to track your miles per gallon (MPG) with a simple calculation (trip mileage divided by total trip gallons).

Use the spreadsheet to calculate your total energy/utility use and costs on a monthly and annual basis. Establish a baseline of at least one full previous year (or more). After completing data for 2008, record current monthly usage and note dates of any efficiency improvements that you make. Excel can convert your data to line and bar graphs or pie charts to evaluate your energy data for planning, budgeting, and business presentations.

Large commercial and industrial energy users can purchase a software program to track energy/utilities for numerous buildings, complex energy systems, manufacturing processes, schools, hospitals, and government institutions. Search the internet using, “utility or energy tracking software.”

Below are many of the most prominent advantages to tracking energy utilities use and cost:

- Reviewing annual and month-to-month energy use/cost at a single glance can spot patterns, trends, irregularities, and errors.

- A sudden irregular increase in heating oil or gasoline stored in an underground storage tank (UST) may be a signal of a leaking tank.
- It ensures accuracy and discovers significant late fees for large users. An industrial client was paying over a thousand dollars annually in late fees until we discovered it by reviewing their bills.
- Note dates when you make energy efficiency improvements, add insulation, switch appliances, change fuels, or replace light bulbs, to ensure you meet your energy efficiency goals and manufacturer’s energy saving claims.
- Set goals to reduce energy use/costs (for example by 20% over next year) then track your progress on your energy spreadsheet. Adjust your goals and energy decisions/choices on success (and failure) of meeting goals.
- Reviewing energy use/history is the first step of an energy audit. This helps guide the auditor to achieve largest and post audit energy use with your spreadsheet.
- If you are considering a renewable energy project, most applications for public energy grants or loans will require baseline energy/cost data for “before and after” calculations.
- Good energy data is required to properly size a renewable energy system. Before any renewable energy system, your first step should be reducing overall energy demand/load. An energy system will be smaller, more cost effective with better savings, payback, and return after you maximize efficiency first.

Begin tracking and monitoring your energy information to make good decisions on how to save energy and money — and to prepare for the next price increase. ♦

Get Yourself a Rain Barrel!

Local Action Network (LAN), a local citizens action group directed by Samantha Pearson, is coordinating a project to supply rain barrels as a way to conserve water. OUE helped this project along by making a loan to LAN to purchase their first batch of the barrels. Samantha sent us the article below describing the reasons for buying a rain barrel and how to do it. The article appeared in a slightly different version in Williamsport Guardian, May 2008.

The Local Action Network is assembling a bulk order of rain barrels in order to significantly increase the number of rain barrels in use in the area and raise the profile of this time-honored system of environmental husbandry. Rain barrels are a good way of tapping into a free local resource, in this case, rainfall, allowing it to be used as needed, particularly for gardening. They can cut individuals’ water bills, reduce stress on the water supply during drought periods, provide for a handy water source on parts of a property without water lines in place, and, if properly used, reduce water in basements. At a community level, they can help create a climate of responsible environmental stewardship, reduce “first flush,” or the removal of contaminants from paved surfaces sending them directly into waterways as part of surface runoff.

At a large scale, they, or any strategy for extensive water harvesting (green roofs, porous pavement, tree-planting programs, built-in cisterns), could theoretically even help cut back on flooding. They are an essential part of permaculture principles — waste nothing — and a way of reestablishing the characteristics of the ecosystem once prevalent throughout Penn’s Woods. In our former forests, perhaps 2 or 3% of rain moved across the land as surface run-off, the rest

was taken up by the plants, soaked up by the soil and transmitted underground and through authentic water-table-connected streams. Today, Pennsylvania has run-off quotients more in the range of 60-100% of rain water running off over the surface, with the consequent flooding, water quality impacts, and stream erosion and deposition problems. For further information see <http://rainbarrelguide.com>.

If you, as a Central Susquehanna Valley resident, would like one or more of these miraculous rain barrels, your current options include,

- 1) building your own, which has certain drawbacks, including ease of cleaning for the finished product and aesthetics/curb appeal;
- 2) purchasing a pre-made one from a local store, which limits you to expensive, mostly ornamental models which don't hold all that much water to begin with; or
- 3) buying one online, in which case you get your choice of features, but have to pay high retail prices and substantial shipping.

As an alternative, LAN has found a medium range barrel, with high capacity, basic aesthetic appeal (available unpainted black, or painted brown, grey, or bright green), recycled content and critical functional features like removable top for cleaning and effective screens to prevent mosquito nesting. We have made arrangements to obtain a shipment of 100 barrels to our area at cost (\$44, unpainted, and \$48, painted) plus shipping (\$8/barrel, subject to final confirmation). They are made by the Great American Rain Barrel Company (www.tgarb.com), which also imports foods like olives and capers and recycles the shipping barrels in this way. Typically, to buy a rain barrel of this design or most others, it would cost over \$200. Even to build your own typically costs between \$30 and \$50, so this arrangement seems to make a lot of sense.

Once you have a barrel of any sort in hand there are some additional expenses associated with installation. These can include labor, one or several diverters from your downspouts, or additional connectors should you want to attach several barrels in series, as well as other basics like firm footing, possible tie-backs, cutting downspouts, etc. How many do you need? That depends on your house, yard, current gutter/downspout arrangement and need/interest in free water for your garden. A safe answer is at least one to get into the swing of things. To assess how much water you are likely to get from the roof areas you have in mind, check for volume calculation guidelines at

<http://rainbarrelguide.com>. For more information about how to get one of these barrels, call 570.522.8159 or email info@LocalActionPA.org. ♦

Montour Crossing – Update

During the past year, we have been keeping track of the resistance by the Coalition for Responsible Growth & Resource Conservation (CRGRC) to the genuinely bizarre plan for a mall at Montour Crossing. Anne Katz filed the update below along with contact information at the end of the article.

Some think Montour Crossing in Lycoming County is a done deal or a dead deal. It's neither. Plans for this 45-acre retail development continue to work through the permitting processes of various regulatory agencies where they've languished for months. Recently the developer and his representatives have made the rounds, visiting agency and municipal officials and elected representatives. Some who were visited continue to be against a project that would turn nearly 100 acres of farmland and floodplain into a retail mall, putting local areas more at risk for flooding.

Mall buildings would sit atop a mound of earth removed from an area adjacent to Loyalsock Creek. The 47-acre excavation that supplied fill for the mound is presumed to serve as a flood buffer. This presumption is based on any one of a series of mathematical models the developer's engineer used to calculate flooding potential. The latest set of numbers is under review by the Federal Emergency Management Agency (FEMA) whose regulations relate to location, cause and extent of flood height rises.

All sets of numbers until the most recent predicted slight rises in areas that violate FEMA's regs. With help from Congressman Chris Carney – the man who holds flood summits around the state – the developer and his engineer held a special meeting with FEMA officials and soon afterward produced a set of numbers that no longer predict a rise in this area.

Meanwhile, permit applications are being reviewed at Pennsylvania's Department of Environmental Protection, Historic and Museum Commission and Department of Transportation. There is still \$500,000 of tax money set aside for widening a perfectly healthy bridge - a gift from the Governor to this developer - so there can be access to the mall.

For updates about this project and information on whom to contact with your concerns, send an email to: crgrc11@verizon.net ♦

OUÉ BOARD MEETINGS

The OUE Board meets at 7:00 p.m. on the first Monday of every month at the United Methodist Church in Watontown. Our meetings are open to the public, and we encourage local citizens to attend and, better yet, to join us in our work. ♦

OUÉ Publications Committee: Editor, Charles Sackrey; Associate Editors, Linda Godfrey, Sally Lauver, Thom Lauver and Clyde Peeling; Distribution, Bessie Bush and Linda Godfrey.

Organizations United for the Environment

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OUÉ is a grass-roots organization dedicated to protecting the environment. As a non-profit, charitable organization, OUÉ is crucially dependent on our readers' donations to continue its work, and you can help us along with a tax-deductible contribution. Donations are used to fund efforts such as the *Ban the Burner* campaign in the early 1990s, activities of *The Task Force on Hog Factories*, alternative energy projects that will be built at local schools, and for public education. Our web site is: www.ouenews.org. Please send your comments to: editor@ouenews.org.