

Kent Environmental Council

Newsletter

June 2005

WATT'S UP? WATT'S DOWN?

Since KEC was founded in 1970 here's watt's up in the U.S.A.

- kilowatt hours (KWH) of electricity used in U.S.: up from 1,535 billion KWH to 3,837 billion KWH
- percentage of U.S. power generated from renewable sources: up from 6.0% to 6.7%
- barrels of oil consumed daily in the U.S.: up from 14.7 million barrels to 20.9 million barrels
- number of passenger cars in U.S.: up from 89.2 million cars to 135.7 million cars
- miles of paved roads in U.S.: up from 1.7 million miles to 2.6 million miles

And globally:

- world population: up from 3.7 billion people to 6.4 billion people
- global temperatures: 1998 was the hottest year in the hottest decade of the hottest century of the millennium. 2003 was the third hottest year on record for the planet, but in Europe it was the hottest summer in 500 years.
- global atmospheric carbon dioxide: atmospheric CO₂ now exceeds 300 parts per million (ppm). That's 35% higher than it was 200 years ago, and CO₂ is accumulating in the atmosphere twice as fast as it did 20 years ago.

So then watt's down for the Kent Heritage Festival on July 2?

KEC will focus on energy – alternate sources and down-to-earth conservation practices for today and the next 35 years.

We invite everyone to

- walk, bike or bus to Heritage Festival (Check the Record Courier for bus routes and bike racks)
 - stop by our tent on N. Water Street to:
 - see a special display of energy-saving tips for your household
 - try your hand ...er, foot ...at generating electricity
 - bring us a joke, riddle, limerick, or funny bumper-sticker about energy/environment – light-bulb jokes, gas-price jokes, environmentalist jokes, economist jokes, etc.
- take our Digital* Conservation Quik-Quiz and earn an energy-saving prize
 - * finger-operated pencil, using your energy. We're saving ours.

Global Warming: The US Contribution in Figures

The United States constitutes 4 per cent of the world population

The US is responsible for a quarter of all carbon dioxide emissions - an average of 40,000 pounds of carbon dioxide is released by each US citizen every year - the highest of any country in the world, and more than China, India and Japan combined

There are more than 200 million cars and light trucks on American roads

According to the Department of Transportation, they use over 200 million gallons of gasoline daily

Motor vehicles account for 56 per cent of all air pollution in The United States

32 of the 50 busiest US airports currently have plans to expand operations

Despite having just 2 per cent of known oil reserves, the US consumes 25 per cent of the world's oil production

16 per cent of world oil production goes into American cars alone.

Around 50 million new cars roll off US assembly lines each year

There are more than 20 million four-wheel-drive vehicles on US roads

Only 1 per cent of American travel is on public transport, an eighth of that in the UK and an eighteenth of that in Japan

It is estimated that 5.99 tons of carbon dioxide is emitted per American per year, compared with 0.31 tons per Indian or 0.05 tons per Bangladeshi.

CUYAHOGA RIVER RESTORATION CELEBRATION

It was a great party! On May 20 and 21, hundreds of people plus 350 school children came to celebrate the restoration of a free-flowing Cuyahoga River in Kent! (Photos and more on KEC's Web site: www.kentenvironment.org)

Lew Steinbrecher, former Kent city manager, cut the ribbon for Heritage Par, the newest addition to Kent Parks. The new waterfall cascaded down over the historic 1838 dam. Bill Zawiski and Steve Tuckerman of Ohio EPA showed many healthy northern pike, smallmouth bass and other live fish caught (and later released) right in downtown Kent. The Kent Fire Department and Kent Kayakers rescued "victim" Chris Wing from the fast-flowing current. The river itself celebrated by meeting and exceeding the standards set up by the Clean Water Act of 1972.

Features include the new park with grassy areas, large rocks, a Liberty Garden, and access to the river edge, interpretive signs about natural history and historical events and landmarks, and a partial reconstruction of the old canal lock, as well as the circulating waterfall over the old dam.

At the ceremony Kent Mayor John Fender introduced speakers who included Caroline Arnold of KEC, Guy Perneti of the Kent Historical Society, Audrey Kessler of Keep Kent Beautiful, and Bob Brown, the project coordinator – who sported a T-shirt with a beaver and logs, and the words "Just one dam project after another"

Fifteen colorful banners painted by school classes were displayed on the Main Street bridge. Local organizations had exhibits and activities on Friday and Saturday; river photographs taken by local photographers were displayed at the old Thompson's Drug Store.

Co-sponsors of the event included KEC, Kent Historical Society, Kent Parks & Recreation, Kent Service Department, Portage Trail Chapter of Sierra Club, American Whitewater, Friends of the Crooked River, Portage Park District, Cuyahoga American Heritage River and Keep Kent Beautiful.

KEC recognizes the special contributions of city officials including former city manager Lew Steinbrecher, project coordinator Bob Brown, and members of city council.

We also extend special thanks to Jim Arthur, Howard Boyle, Karen Clapp, Wanda Clark, Chris Craycroft, Jerry Gubanich, Sandy Halem Chuck Hambly, Dave Hill & all kayakers, John Idone, John Kaminsky, Bob Kobenis, Elaine Marsh, Guy Perneti, Nancy Rice, Cathy Ricks, Bill Skowronski, Marie Sullivan, and the Record Courier.

Finally, much credit goes to KEC members, especially Nancy & Walt Adams, Caroline Arnold, Harriet Begala, Brad Bolton, Sherry Gedeon, Bridget Hair, Karl Liske, Barb & Rich Patterson and Harold Walker.

HOWEVER...

THERE MAY BE TROUBLE DOWNSTREAM:

Our "constant companion", the Cuyahoga River is now running freely around the Kent dam and rolling along toward the dam in Munroe Falls. But the news from our neighbors there is hopeful: work on lowering that dam is expected to begin yet this summer, after some paperwork is completed..

But downstream of Munroe Falls there's yet another 'dam thing': the old Ohio Edison dam in Cuyahoga Falls, in Gorge Park. Removal or modification of this dam is an important next step in the renewal of the Cuyahoga River. It is predicted that removing this dam would improve water quality and wildlife habitat, add two miles of whitewater for canoeing, rafting and kayaking, restore opportunities for fly-fishing for steelhead trout, and reveal the original natural Capacow Falls, long submerged beneath the dam pool.

Unfortunately, there are plans afoot to resurrect the Ohio Edison dam for generation of electricity. A proposal has been submitted by Advanced Hydro Solutions to the Federal Energy Regulatory Commission (FERC) for a license to operate a small commercial hydroelectric power plant using the facilities of the dam.

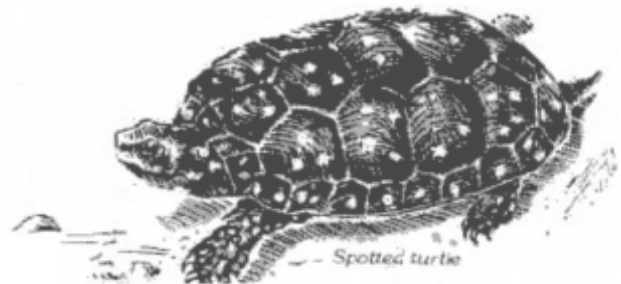
This proposal is opposed by the Friends of the Crooked River (FOCR), the Ohio EPA, Summit County MetroParks, American Rivers, and Ohio Environmental Council because of potential negative impacts on water quality, loss of scenic parkland, and reduction in river flow. Most seriously, if the

license is granted, no modifications can be made to the dam for 50 years, even if it is not used for hydropower.

FOCR is coordinating opposition to the project; KEC is studying the issue. A public meeting is to be held in August (date TBA). For more information: Elaine Marsh 330-657-2055 (day-times); Edith Chase 330-673-1193; or visit web-sites: <http://www.advancedhydrosolutions.com/MetroGorge.html>

<http://www.glahabitat.org/news/glnews373.html>

Also see KEC Newsletter, May/June 2004 http://www.kentenvironment.org/_newsletters/04_05_newsletter_small.pdf



Rare Spotted Turtles make the Kent Bog their home
See insert about becoming a member of *Friends of the Kent Bog*

New Power Paradigm

Energy is ubiquitous as an operator in Earth's ecology and in our social utility. Because our use of it at once involves economics, technology and lifestyles, it may be difficult to step back and observe assumptions holding us back from achieving a new understanding of how a different view of energy could dramatically transform our impact on the planet's climate over the next several decades.

From an economics perspective, changing emphasis may apply to the supply side or the demand side. From the technology perspective, we may choose to up-level the system toward more sophisticated approaches already being used in the financial, communication and manufacturing sectors.

Historically and up to this day the most prevalent view of energy is that of a **fungible industrial commodity moving through a linear process whereby fuel is acquired, converted to marketable form, sold, distributed, and consumed.** This model, with its simplistic, sweeping, top-managed linear processes, came about as Twentieth Century manufacturing expanded prodigiously through abundant cheap fossil

fuels. In fact, cheap energy as a key factor in the growth of the industrial economy is so fully ingrained into policy that few questions are ever raised about its virtue, or its unnecessarily strong supply side bias. It is clearly the foundation of the energy legislation of 2005, as though cauterization were the best burn victim treatment because that's the one the doctor knows how to perform.

At the core of a new paradigm, **people receive the services they want, through efficiently and effectively modulated energy as a dynamic medium or system.** Were it possible to optimize the efficiency of the system without added complexity, nobody would opt for complexity, because learning to control and adapt can be fraught with frustration, uncertainty and error, as well as the stress of teaching and learning.

If energy is a precious medium because of the great impact it has on the Earth's ecology, then we should manage it with more precision and finesse. The core advantage of a next generation energy paradigm is fine tuning. Currently in many places and time frames, when energy use is summed across usage incidents, the waste is truly gargantuan. While in some relatively small portion of these instances, direct human intervention could help, dedicating the time and effort to mindfully scrutinize energy's many service points requires a significant personal effort for people who are constantly pressed

for task productivity and razor-thin time management. A far more effective response is an ever-vigilant rules-based dedicated communication, information and control system using technology that can fully respond to the overall waste problem.

The current version of the energy bill of 2005 does have small areas dealing with demand response, time-based rates, and advanced metering — a tiny step toward a new paradigm. It is encouraging that with the door opening a crack and advocates pushing hard, light begins to enter the dark halls of Congress.

Here is a **concrete example** of how such a system could be of benefit:

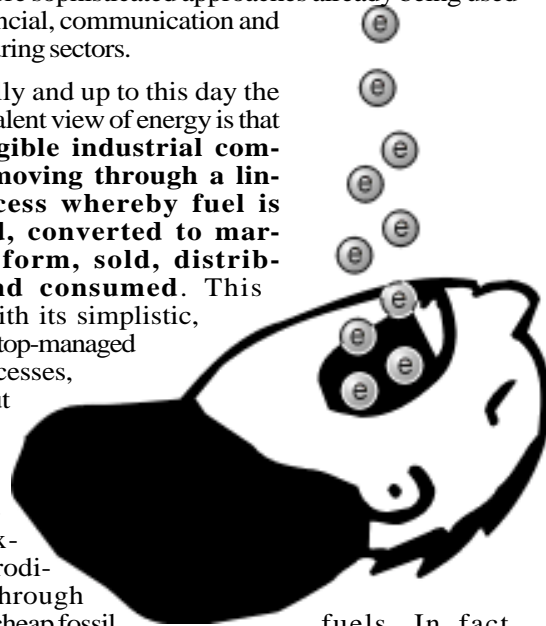
It is a hot August afternoon in the Los Angeles area. Lots of air conditioning compressors have turned on and are drawing the power supply capabilities toward their limits, heating the transmission lines and further reducing the efficiency of transport. Because the whole system is interconnected and interactive with a preprogrammed set of priorities and actions, it responds automatically to the demand event in some of the following ways:

- Hot water supply tanks with less differential than 10 degrees are prevented from turning on
- Solar photovoltaic swimming pool heaters divert their power to the grid
- The air conditioning compressors cycle off and on programmatically to even out demand and according to a set of priorities from rate payers who want to earn discounts for tolerating higher room temperatures
- Fuel cell owners sell power back to the grid, earning income on their investment
- The compressors of refrigerators containing low value, temperature tolerant items are delayed in their on cycles.

Unquestionably, this vision is the future of power systems. There is nothing of a pipe dream in it. With present technology and increasingly with components of dramatically lower cost, there are no impediments to putting such a comprehensive system in place. Security, reliability and safety need not be of disproportionate concern with the proper design. The most grounded yet contentious questions about the return on investment of capital outlays for many possible implementations of the system, will persistently present themselves, especially given the many institutional cross-linkages and interdependencies, and pivoting on how earnestly we choose to address the hazards of climate change, but there should be few questions that huge reductions in waste can result, at a reasonable cost.

The Great Generation stepped up to the challenges and sacrifices of the War to accomplish the most astounding victorious mobilization history has ever known. Why not reinvent some home grown American can-do ingenuity, once practiced by that generation? History will judge whether our generation can rise to the challenges and sacrifices of managing energy demand and of forestalling the extremities of global climate change.

by : Rich Patterson



Portage County Environmental Roundtable Spring Forum

The Portage County Environmental Roundtable held a forum on April 18 to receive an update on the developing plan for watershed protection in Portage County. Portage County contains headwaters for five watersheds: the Cuyahoga, Chagrin, and Grand Rivers which flow into Lake Erie and thus to the Atlantic Ocean; the Mahoning and Tuscarawas Rivers are part of the Ohio River Basin. Portage County's geographical position, its unique aquatic environments, and its location in the path of urban development give urgency to the issue of watershed protection. The value to water quality in general of the purification function of wetlands and riparian areas is well-known. Thus it is reasonable to

look to define critical areas in order to enable intelligent development decisions. The initial draft, as discussed by representatives of the Portage County Regional Planning Commission, the Davey Resource Group, The Nature Conservancy, and the Portage County Soil and Water Conservation District, suggested encouraging guidelines toward the "smart growth" that we have been advocating. We look forward to supporting and helping to implement the final plan as it is completed in the near future.

Walt Adams, Portage County Environmental Roundtable

Thro N Go, 2005

The residence hall move-out at KSU ("Thro N Go") this year was an overwhelming success. The scope of the collection of food, clothing and durable goods (Furniture, appliances, carpet, etc.) was expanded from last year's three Tri-Towers residence halls to include eight more, nearly tripling the number of student rooms covered. The total amount of goods donated for re-use was 28 tons compared to 3 tons last year! Of this, the majority was clothing (37,000 lbs) which is being distributed by the County Clothing Center. Moreover, the quality was excellent and needed for younger members of many of the families that the Center serves.

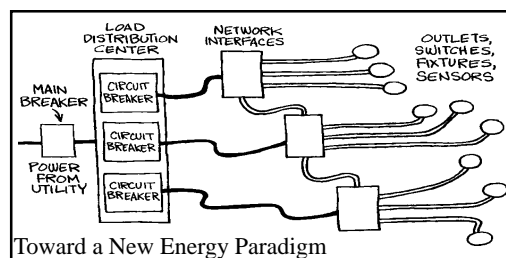
A further benefit is the reduction in cost that would otherwise be borne by KSU to dispose of discarded materials at the end of the year. The cooperation and commitment among the various offices and groups has been fabulous: Family and Community Services, The Portage County Recycling Center, Campus Environment and Operations, Residence Halls staff, S.E.E.D. (the student environmental organization), Kent Interhall Council, and the Office of Student Life. But most of all kudos go to the students, both volunteers and participants who took the time and trouble to deposit their

unwanted belongings into the totes and the furniture collection areas instead of dumpsters.

It is clear that KSU students are becoming attuned to recycling and reuse. Our student friends in S.E.E.D. continue to advocate strongly for an ongoing program of collecting recyclables. And it is also clear the KSU administration sees value in the program. We hope to see it expanded campus wide next year, but additional resources will be needed to handle the greater volume.

Q: How many environmentalists does it take to change a light bulb?

A: None — if the light bulb is out, that's the way Nature intended it.



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