

## Weed or Read

Some days are simply too hot for weeding: they are designed for a hammock and a book. I was prompted to read Lester R. Brown's latest book by the positive reviews but it probably should be read back to front. The subtitle of "World on the Edge" is "how to prevent environmental and economic collapse" and that 'how' is found in Part III. The first 90-page section is an outline of falling water tables, shrinking harvests, eroding soils, and expanding deserts along with the consequences of those factors. In a word, grim.

What follows is both hopeful and do-able. There are myriad ways we can build an energy efficient global economy but playing ostrich is not among them. It is surely possible but whether it is probably may depend on our ability to re-use, recycle, and think beyond our throw-away mentality. One small feather is the fact that California is requiring new TVs to draw 1/3 less electricity than current sets do by 2011 and 49% less by 2013. That may have been prompted by the popularity of the large screen plasma sets that use four times more juice than traditional ones.

Buildings have enormous potential for energy savings as most of what is familiar to us is highly inefficient. The owners of the iconic Empire State Building in NYC, 80 years old and 102 stories high was retrofitted and reduced energy use by about 40%, saving \$4.4 million in just one year. It is gratifying to think of all the good jobs produced by smart investments like that. It occurs to me that city, county, or state governments could encourage such design by overhauling out of date codes that were written before new materials and processes were available.

The new American Embassy building in London is being built to standards that make it nearly energy free. It will be an impressive way to 'fly the flag' and offer a worldwide demonstration of 21<sup>st</sup> Century technology. The first US building to achieve LEED (leadership in energy and environmental design) platinum rating was the CBF's office building near Annapolis, Md. In Chicago, because the incoming tenant required at least a 'gold' rated office, the 60-story building uses river water to cool it in summer and has plants on the roof to reduce runoff and heat loss. The first large skyscraper with platinum rating in NYC has its own co-generation power plant. These techniques are expected to expand from 6 billion sq.ft. in 2010 to 53 billion sq.ft. in 2020.

Since the US uses more gas than the next 20 countries combined, any changes we make in transportation will make a real difference. We have a fond dream of the 'open road' but the reality is congestion that wastes time and fuel, the costs rising from \$17 Billion in 1982 to \$87 Billion in 2007. Bikes are one solution: with parking garages costing as much as \$55,000 per parking place, some colleges and cities are using free bike-sharing plans to save money. One college in Maine and another in Wisconsin give bikes to freshmen who agree to leave cars home. Evidently in those places freshmen with cars are not as scarce as hen's teeth.

We can't talk about gas without immediately thinking about its cost. Because of an accounting system that actually does not include total cost, gas costs a lot more than the pump price. By figuring in the indirect costs of oil company subsidies, military protection of the pipelines, oil spill clean up, auto-exhaust-related respiratory illnesses, the cost of a gallon is over \$15 according to the International Center for Technological Assessment.

Using total cost assessments makes wind, solar, and geothermal downright affordable. Brown nails our current accounting fallacy by using Enron as an example. At one point Enron was widely admired as the 7<sup>th</sup> most valuable corporation in the country but when their books were audited the \$90 a share traded for pennies.

One interesting thing: if the 40 least efficient states were to achieve the efficiency of the 10 most efficient states national electricity use would be cut by 1/3 which would allow 62% of all US coal-fired power plants to close. Ontario, Canada's most heavily populated province will phase out coal by 2014.

Food, like water, is something for which there is no substitute and the figures given in the book are greatly encouraging. In the US farm numbers rose between census in 2002 to 2007 by 80,000 to the current 2.2 million. The number of organic farms increased from 12 thousand to more than 18 thousand in the same span of time. The book does point out what you have read countless places, that growing corn for fuel was a big mistake, an expensive subsidized mistake threatening food security worldwide.