

EIRFeature

‘ETHANOL MADNESS’

End the Great 2006 Bio-Fuels Swindle

by EIR Staff

The current mania for ethanol, biodiesel fuels, “flex-fuel vehicles,” and the like, is creating a financial bubble—within which is a swindle—inside of which is a slippery old methane fart, waiting to explode. Members of Congress taking part in the swindle, enthusiastically or not, are going to wind up very smelly when the ethanol party ends, the investment boom collapses, and motorists indignantly demand regular gasoline again.

Why should we shift to biofuels for transportation; ethanol, for example? Well, first, we’ll get 20% *less* gas mileage from our fuel that way. Second, we can pay a good deal *more* for fuel, in direct prices and subsidies; in fact, we’ll be able to use a fuel whose price is inflating *much* faster than the price of gasoline. Third, we’ll be able to spend tens of billions of dollars more a year in tax revenues, *subsidizing* ethanol makers, including some of the biggest global cartels. Fourth, we can use up more petrochemical energy *making* ethanol than we get by *using* it. Fifth, we can use up large volumes of *water* making the ethanol, including in some very water-scarce regions of the country—and overburden our transport infrastructure as well. Sixth, we could soon deny corn exports to nations that need them—maybe even cut our own consumption of corn—and burn it in our cars instead.

And last but not least, we can delay or *cut off the revival of nuclear power* for industry and economic expansion; instead, we could take a major scientific and technological step *backwards*, a great leap back toward primitive ages when mankind burned straw for fuel.

Those are seven pretty good reasons—for the past year, they’ve been enough to affect the public *posture* of quite a number of Members of Congress.

In the worst example, one such Congressman—an Ohio Democrat—addressed a rally promoting the ethanol madness in his home state on May 20, and then stepped off the podium and told a questioner that he knew ethanol *wouldn’t work* as a solution to high fuel prices; he knew, in fact, that ethanol is expensive and uses up more petrochemical energy in production than it gives back in burning; but, he



United Nations/Jerry Frank

Congressional job creation you don't want: In Brazil, ethanol depends on sugar cane harvesting by virtual slave labor. That's one of many reasons any "bio-fuels boom" in the United States is a fraud.

said, he was promoting it because he had no better alternative. This Congressman was not just posturing, but *lying* to his constituents about the crucial question of inflation and the economy—and this in a depressed state where Democrats have made Republican elected officials' lying and corruption a major issue.

Another, a northern Republican governor, cheered on the start of construction of new corn-ethanol factories in his state, admitting publicly that the process was too inefficient for fuel! He claimed that the *next generation* of technologies would surely cure that, so let's get on with it. As the friendly drunk could tell you about ethanol, "the more you drink of it, the better it seems to work." A combination of switchgrass and farm dung is alleged to make a much "stronger" fuel variety. No doubt.

And if you've just invested your constituents' money, your farm cooperative, or your nephew's pension plan in it, it becomes a virtual miracle cure. Why, a Congressional deputy leader of the Democrats proudly called for installation, in the Congressional garage, of an E-85 Ethanol fuel pump. He was sure this would cure any defects of national leadership the voters have found in that body recently. Another leading Democrat thought the better part of \$50 billion was not too much to lavish on such technologies.

The great satirist Jonathan Swift painted such a scene in *Gulliver's Travels*, wherein scientists of the Academy of Lagado strove to extract sunbeams from cucumbers for warming, and to reconstitute food from dung.

The desire to head off a new development of nuclear power—the actual alternative to oil imports, carbons pollution, low power growth, and high power prices—is transpar-

ent in both the right-wing and liberal or environmentalist promotions of the biofuels fraud. Ethanol is already being subsidized with billions a year, and would be fertilized with tens of billions annually, by those in Congress and elsewhere who denounce any government move to approve and speed up new nuclear plant construction as an unwarranted "subsidy."

This Tulip Will Bubble, Not Burn

In the articles below, we show that the delusional ethanol mania gripping many, both inside the Beltway and out in the Cornbelt, defies well-established scientific principles of technology and physical economy. "Replacing" one gallon of gasoline from imported oil, with a gallon of ethanol from domestic corn, costs the nation \$7.24 in prices and subsidies, by one exhaustive calculation; even a small increase in the tiny fraction of transportation fuel which is ethanol now, would consume most of our corn crop, leaving none to export and little to eat. A significant shift—say, to 25% of transportation fuel, as the auto "Big Three" CEOs disingenuously proposed—

would plant 13% or so of the nation's entire landmass in corn for that purpose alone. The underlying physical situation is that ethanol production consumes more fossil fuel energy than the ethanol gives when burned, for clear scientific reasons.

Ethanol's national average market price has made gasoline prices seem stable by comparison, catapulting from about \$1.20 a gallon in early 2005, to \$1.80 or so by September 2005, to \$2.75 a gallon this Spring. Now, it is just about at the price of regular gasoline—and that is *after* a Federal subsidy of 51 cents on every gallon, additional state subsidies and tax breaks, and some local subsidies. As the price has soared, 35 new ethanol plants have leapt up. Fermentation ethanol production has zoomed from 2.7 billion gallons in 2003 to almost 4.5 billion gallons annually now, and corn for ethanol now exceeds corn for export, by volume. The phenomenon is an ethanol investment bubble, adding at least several more "tulips" to the global commodities-markets fury of the past 18 months.

This bubble has been caused and fed by direct government subsidies, and by Soviet-like *orders* in the 2005 Energy Act that ethanol production grow to 12 billion gallons by 2010. The White House has pitched in by ordering states to put ethanol in their gasoline blends, beginning with California in 2001.

In fact, ethanol—the "alternative" to rising gas prices—has pushed the national price of gasoline *up* in recent months. At Senate Commerce, Science, and Transportation hearings on "gas price gouging" on May 23, witness testimony repeatedly acknowledged that government-ordered use of ethanol in gasoline has been driving up the gas price; inefficient truck transport of ethanol from the Midwest to the coasts, combined

with refinery delays and costs in adding ethanol to gasoline blends, caused the additional 10-15 cent increase in gasoline prices in late April.

That is nothing compared to what will happen as an ethanol price bubble expands, before it bursts. We show in this feature that at the center of this bubble is the food cartel—specifically, the Archer Daniels Midland conglomerate, which has gorged on the Federal subsidies. ADM made 40% of all fermentation ethanol in the United States until recently; that is now down to 25%, as every local fund and cooperative tries to start an ethanol plant to tap the bubble. But ADM is itself building new biodiesel plants and reporting profit increases of 30% on the ethanol boom, its stock up 51% in a year.

We show that Brazil, the constantly cited model, produces ethanol *en masse* with virtual agricultural slave labor, more than with sugar; and that the Brazilian history with ethanol in fact shows the economic/financial dangers ahead on the path of ethanol madness. Having produced ethanol fuel in cycles for 30 years, with 90% of all cars produced there being capable of burning E-85, Brazil has suffered repeated hyperinflationary bubbles of ethanol prices, and then of the prices of sugar. One of those cycles is going on now, and the price of ethanol within Brazil has increased 15% in the past few months, while sugar prices are at 25-year highs on global commodity markets.

The result: Once again, Brazilian motorists who were using ethanol are switching back to gasoline, and ethanol use is falling; once again, Brazilian ethanol producers are trying to get rid of tariffs and sell ethanol to the United States; once again, sugar-cane ethanol producers are switching back to producing sugar, and ethanol supplies are suddenly very short, pushing the price up further. Ethanol production in Brazil fights food production, helps generate the highest inflation rate in the world, and thus fights overall consumption.

An “ethanol boom” in the United States will do all the same things, and worse. Corn, particularly the U.S. corn crop, is a far more important food source for nations and people in need, than sugar.

And we show that the *political* promotion of the fraudulent ethanol craze, through foundations and think-tanks, has been led by—the neo-cons, the kindergarten of George Shultz and his Committee on the Present Danger. These are the mendacious crew who brought America the “Iraq cakewalk,” the nonexistent weapons of mass destruction, the war that would pay for itself in oil revenue, and so many other of Dick Cheney’s lies. Now, it’s “energy independence through bio-fuels”; and such great anti-neo-con truth-tellers as Al Gore, George Soros, and a host of liberal and labor outfits, are publicly backing Shultz’s neo-cons in this swindle.

If Congress continues down this very slippery slope, with more and more billions of subsidies, the aroma of hypocrisy, and even deliberate lying for campaign contributions and votes, will cling for a long time.

Ethanol: Not a Kernel of Science in It

by Laurence Hecht

Ethanol is an excellent substance to tank up on. Just don’t drive on it. It slows reaction time, impairs judgment, and it’s illegal. In excess, it can make you giddy, stupid, mean, sour, depressed, and violent. It might even make you President.

Here we will inform you what ethanol is, why it is a worse than stupid way to replace our oil dependency, and why development of nuclear power is the only sane way to provide ourselves an economic future.

Ethyl alcohol or ethanol (C_2H_5OH) is the second in what chemists call the homologous series of alcohols, which include methyl, ethyl, propyl, butyl, and amyl alcohol, each one distinguished from the previous by the addition of an atom of carbon and two of hydrogen (CH_2). Man has been making ethyl alcohol since long before the discovery of its chemical and structural formula. Almost any plant substance can serve as the raw material—grapes, apples, corn, grain, and potatoes are traditional ingredients. To make some yourself, start with some store-bought apple juice which has been bottled without preservatives. Put it in a clean glass container, and let it sit several days. Yeast, naturally present in the air, will act on the fruit sugars—according to a process first deduced by Louis Pasteur—to change them into alcohol. This is called fermentation. Make sure you use a loosely fitting cover, because carbon dioxide gas is released in the process, and could explode a tightly closed container.

If you wait too long, the fermentation will go to the next stage, converting the alcohol to vinegar (acetic acid). If you stop it at the right moment, you will have an apple cider of perhaps 5-10% alcohol content. The alcohol will be mixed in with the sugary fruit juice. A simple way to separate the alcohol is to freeze the mixture. The alcohol, which has a lower freezing point than the rest of the mix, will collect in a cylindrical hollow in the center of the frozen substance. One can also separate the alcohol with a still, or what chemists call a distillation apparatus. Ethyl alcohol has a boiling point of 173°F, well below that of water. By heating the mixture, the ethyl alcohol boils off first; its vapor can be collected by condensation on a cool part of the apparatus called a condenser. Both of these methods of separation are types of fractional distillation.

The Cost of Scaling Up

To produce ethanol on a commercial basis, the laboratory process of fermentation and distillation must be scaled up.