principle of anti-entropy exhibited by the generation of the organized Solar System, with its characteristic Periodic Table, from the basis in a fast-spinning solitary Sun, with its lower state of organization, to the composition of the Solar System today.

The only basis for sustaining a modern level of human population on this planet, lies in the effects of scientific and related technological and cultural progress. That progress depends, inclusively and characteristically, on mankind's promotion of the density of useful living plant-life per capita and per square kilometer, in which trees represent a higher state of organization and quality of the climate and environment for mankind than the vegetables we grow for the food-cycle: trees absorb more of the Solar radiation!

To create a more moderate climate, promote green cover, with an emphasis on trees. At the same time, conserve the environment by increasing reliance on the use of increasing high-energy-flux-density sources of power, such as nuclear-fission and thermonuclear-fusion today. All of these required policies, assume the common physical-economic form of increase of physical, as distinct from merely monetary capital-intensity per capita and per square kilometer. Above half of that investment in physical capital-intensity must be, presently, in the development and maintenance of basic economic infrastructure in, chiefly, the so-called public sector.

In the U.S.A. prior to the rise of the 68ers, the notions which I have just outlined above, represented conventional wisdom. With the coming into maturity of the present upper 20% of family-income brackets within the 50-to-65 age-interval, there was a so-called "cultural paradigm-shift" downward, away from a producer society, to a consumer society, from a physical economy, to a low-paid, either non-productive, or marginally productive "services economy."

This Baby-Boomer-led, ideological downshift in intelligence and in morality, is typified by the campaign against nuclear-fission and thermonuclear fusion as the indicated power sources for reaching into a healthy economic future. This represented the same policy of the satanic Olympian Zeus of Aeschylus' *Prometheus Bound.* The doctrine, from the Apollo Delphi cult's Zeus, to the present day, is known in political history as a characteristic expression of what was known then, as now, as "the oligarchical principle." This takes the form of the doctrine that the upper 3% of family-income brackets are to be served, and the lower 80% must slip, more and more into penury and servitude of manual, unskilled labor. Not accidentally, this is the oligarchical principle expressed by the George W. Bush Administration, and by Democrats who purse their lips in the contemplation of the buttocks of the upper 3%.

The tactic of the pro-oligarchical upper 3% and its pursed-lip lackeys, is to fool the credulous into the delusion that "fool's oil" now is a comfort-zone, the future of humanity be damned.

Senate Hearing Cheers Great Biofuels Bubble

by Marcia Merry Baker

The latest update on the impact and expansion of the Great Biofuels Bubble was presented to the Senate, at a Sept. 6 full committee oversight hearing on the "Federal Renewable Fuels Programs," held by the Environment and Public Works Committee. Witnesses from the Environmental Protection Agency (EPA) and the Departments of Energy (DOE) and Agriculture (USDA) gave testimony, on what amounts to drastic shifts in farming, threats to the food supply, and a stampede by big money funds to get in on the action.

Sounding no alarms, eight Senators—Democrat and Republican alike—weighed in on how to further the wild process. Ranking Minority Leader, Sen. Jim Jeffords (I-Vt.), reminded people that he had first sponsored a renewable fuels initiative to replace gasoline in the 1970s, with his "Replacement Motor Fuels Act of 1979" bill. Sen. Johnny Isakson (R-Ga.) said that construction of a new 100-million gallon ethanol plant is to start this October in Mitchell County.

Federal Bubble Mandate

This Senate Committee has oversight, because it oversees the Environmental Protection Agency, which was mandated, under "EPAct"—the Energy Policy Act of 2005," to decree annual Renewable Fuel Standards (RFS), beginning with 2006, on the volume and make-up of biofuel that must be blended into gasoline. Thus, this law created what's called "market reliability" for the mad-dash underway into biomass refineries, distribution and speculation.

EPA Acting Assistant Administrator William Wehrum said, "The renewable volume [to be blended into gasoline] begins at 4 billion gallons in 2006, and increases to 4.7 billion gallons in 2007, 5.4 billion gallons in 2008, and continues to scale up to 7.5 billion gallons in 2012. EPAct requires that EPA annually establish the percentage requirement, which will apply individually to refiners, blenders, and importers to ensure the total volume of renewable fuels specified for that year in EPAct is achieved." True, this year's 4.8 billion gallons of ethanol is barely 3% of the gasoline used nationally, but when it comes to bubblenomics, size doesn't matter.

On Sept. 7, the EPA issued its proposed new rules for 2007, which introduced a new feature: a "marketplace" for

buying and selling under- and over-used allotments among the entities involved in meeting the RFS.

In fact, today's pace of new biofuels capacity and output exceed EPA mandates. In 2000, 1.6 billion gallons of ethanol (mostly corn) were produced in the U.S.A.; in 2005 this had grown by 150% to 4 billion. But then a 20% jump occurred from 2005 to 2006. This year, nearly 5 billion gallons will be produced. Over 100 corn ethanol plants are running in 20 states, with 42 new ones and 7 expansions under construction. Once this capacity is completed, ethanol output in the United States will be 7.7 billion gallons a year, which is expected well before the EPA mandate of 7.5 billion gallons in 2012. And this doesn't even factor in the 60 ethanol plants now in the "talking" stage.

We want to proceed even faster, was the message of Alexander Karsner, Assistant Secretary of the DOE's Office of Energy Efficiency and Renewable Energy. The DOE is pushing all kinds of R&D programs to add other "energy feedstocks" to the refineries, besides corn, to figure out how to "convert corn stalks, sawdust, or waste paper into fuel ethanol, and to do so cost-effectively and on a large industrial scale." The DOE and the USDA already give grants under the "Biomass Research and Development Act of 2000," to study converting wood chips, citrus peel, potato skins, and other biomass into liquid fuel, but now the R&D interest is reaching the mania stage.

The DOE and USDA did a study in 2005, known as the "Billion Ton Study," which Karsner said, "indicates that there are enough agricultural and forestland resources in the U.S. to sustainably produce up to 1.3 billion tons of biomass feedstocks by 2030. This would be enough feedstock to potentially produce at least 60 billion gallons of ethanol." This would be roughly 30% of yearly motor gasoline used.

Admitting that the idea is just "a resource potential study," Karsner nevetherless gave a wild-eyed vision of farmers and foresters everywhere producing "dedicated energy crops." He said that "Different regions could potentially support different feedstock crops—for example, switchgrass in the South Central region and willow in the Northeast."

The Biofuels Bubble That Ate Your Lunch

Such shifts would radically change the landscape, undercutting the food chain, already strained from globalization. USDA Chief Economist Keith Collins reported that in 2000 about 6% of U.S. corn production went into ethanol. In 2005, about 14% of the U.S. corn crop was so used. This year, it is expected that 20% of the U.S. corn crop will be converted into motor ethanol; and next year, it could be 26%. In volume, the amount of corn now going into ethanol is about the same as what the U.S. typically exports. Either that corn export flow is eliminated, or use of corn for domestic livestock feed is stiffed, or some other trade-off occurs, if corn-for-ethanol becomes king.

Staying within the biofuels logic, Collins gave a "value-free" briefing to the Senators on whether corn output can be expanded, and what trade-offs to expect. While corn yields may go up a bit, mainly, more land needs to be cropped for ethanol. "If exports and feed use are to be maintained, corn acreage would have to rise to about 90 million acres in 2010 . . . nearly 10 million more than the average planted during 2005 and 2006." He proposed that farmers could start corn-growing on land now in the Conservation Reserve Program, which was set up to nominally protect the environment (by not growing row crops). Collins said that the USDA has done a study to estimate that "4.3 to 7.2 million acres currently enrolled in the CRP could be used to grow corn or soybeans in a sustainable way."

More bluntly, Collins said, that as corn commands higher prices because of pressure from ethanol-use, then "land must be bid into corn production and away from other crops." Yes, food supplies will be affected. He noted that Brazil and Argentina should be expected to start exporting corn to world markets that the U.S. no longer serves.

Even with all these shifts and trade-offs, Collins points out that, "Corn stocks are likely to be increasingly tight and corn prices high, so the corn sector will be highly vulnerable to market disruptions. . . ." In fact, the USDA estimates that because of the current High Plains drought, the U.S. corn crop this year will be down by 7% from 2004. The famous "Corn Palace," in Mitchell, S.D., the 114-year-old building that is a tourist site, which is decorated every year with corn designs, will not be re-covered in 2006. Governors are begging for Federal farm relief.

No matter. The DOE, USDA, and EPA are co-hosting a "national renewable energy conference to help create partnerships and strategies necessary to accelerate commercialization of renewable industries and distribution systems. The conference, 'Advancing Renewable Energy: An American Rural Renaissance,' is scheduled for Oct. 10-12 in St. Louis."

Flying into biofuels are a swarm of hedge funds, and well known names such as Bear Stearns. Stock share values of Archer Daniels Midland, cartel leader in ethanol, have almost doubled over the past year. Bill Gates has bought into $84 million worth of Pacific Ethanol, Inc. based in Fresno, California, which is not even built yet. Mania grips the farm states, where farmer-owned facilities are making hyper-profits, because ethanol prices are double their costs of production. Initial Public Offerings have been snapped up this summer for VeraSun and a couple of others.

The DOE is courting the crowd. In August the DOE "Biomass Program" held a "30x'30" workshop for "industry and academia," which Krasner said, "refers to the theoretical potential of replacing 30% of current U.S. gasoline consumption with ethanol, or producing about 60 billion gallons of ethanol by the year 2030."