Best Buy the Dams Now

By Dave Dunn, Hervey Scudder and Rick Foley

Many Vermonters feel that the state should have purchased the eight hydroelectric dams on the Connecticut and Deerfield rivers two years ago, and lament the failed attempt. As members of the NorthEast Center for Social Issues Studies (NECSS) team of utility-industry managers, financiers, lawyers, and energy consultants that initiated the widespread public support for the idea that Vermonters buy the dams back in 2003, we are often asked, “What happened to the dam deal?”

That’s a fascinating century-long saga about wealthy outsiders developing our commons, and offers deeper reflections. Right now, however, you may want to know what compromised the most recent chapter in the people’s attempt to own the dams – because it’s not too late to buy the dams.

What happened? The simple answer: Gov. Jim Douglas “sold us down the river” by pulling resorting to the George W. Bush playbook – saying one thing for the public good and doing the opposite, to maximize big-business profits.

The more complex answer: The federal government controls interstate commerce, including converting the commons (e.g. watersheds and waterways) into commodities (e.g. electrical power); corporations, via their lobbyists, call the shots in Montpelier; and the two major parties restrict themselves to playing by the federal/corporate rules on their tilted playing field.

Want more? First, let’s look at who’s been running Vermont’s electric industry for the past 80 years while Vermont consumers have been held hostage to some of the nation’s highest electric

Hostage to a Nuclear Plant

By Ray Shadis

"Every age and generation must be as free to act for itself, in all cases, as the ages and generations which preceded it. The vanity and presumption of governing beyond the grave is the most ridiculous and insolent of all tyrannies" - Thomas Paine, Rights of Man, Part One, 1791

History contains a few accounts of the purposeful or deliberate disservice of one generation to the next. In late antiquity and the onset of the dark ages, whole populations, stressed to the limits of survival, sold their children and children’s descendents into slavery.

However, the continuing excretion of nuclear waste from nuclear electric-power stations represents the first time in recorded history that any single generation has methodically decided to serve its own convenience by leaving a dangerous, toxic legacy to burden multiple future generations. Only the most callous hearts are immune to the thought of producing deadly radioactive wastes and storing the slowly decaying mess for hundreds upon hundreds of years. A most cynical and twisted legacy: the gift that keeps on killing.

Anyone tuned to nuclear waste now understands that the contracted schedules for establishing a national high-level nuclear-waste repository out west have collapsed – collapsed, really, in a wave of technical incompetence and corrupted science. Meanwhile, by congressional mandate, the time has arrived for the Department of Energy to propose candidate sites for a repository back east.

Vermont Commons is a print and online forum for exploring the idea of Vermont independence—political, economic, social, and spiritual. Look for us the last Friday of every month in the Vermont Guardian, and visit our website at www.vtcommons.org. We are unaffiliated with any other organization or media, and interested in all points of view. We welcome your letters, thoughts, and participation.

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The current challenge of the world energy picture has two faces: CO2 emissions (global warming) and Peak Oil (soaring costs). These two phenomena, above all others, will frame the debate about energy for the rest of our lives. And they exert an unyielding pressure upon us to be wonderfully creative.

In his essay “Drill and Kill” (see page 7), Gary Flomenhoft reminds us that “Energy is not a technical problem; it’s a political problem.” Any discussion of energy must begin with this insight. It’s not that there aren’t technical challenges to be solved – in transportation, in heating/cooling systems, in power-generation, distribution and storage, and in petrochemical agriculture – but rather, do we Vermonters have the will to find new ways to meet our energy needs?

Deeper down, energy is a cultural problem, a problem whose roots are barely visible. Within hours of the fall of the Twin Towers the U.S. Secretary of Defense appeared on national television and was asked if he had a message for the world in response to the tragedy that had befallen Americans. He replied unswervingly that “the world” had to “understand” one thing: we befallen Americans. He replied unwaveringly that the world in response to the tragedy that had occurred needed many more huge nuclear and coal-fired power plants built within a decade. EDF used PG&E’s own growth assumptions and then demonstrated that by investing in conservation, efficiency, co-generation, and some renewables, none of the proposed massive fossil-fuel plants needed to be built.

EDF won its David-vs.-Goliath battle with PG&E in the late 1970s. In the end, however, the culture won, or persisted. U.S. energy use soared in the 1980s and 1990s. The supply-side mentality reigned, and still does. The American Way of Life is strangely linked to energy profligacy. And profligacy requires empire. When 60 percent of our primary energy source, oil, comes from the world beyond our borders, can it be otherwise?

Running an empire is first and foremost expensive (in terms of money and lives). U.S. military expenditures equal those of all other nations combined – a breathtaking fact. And as Gary Flomenhoft explains in this issue, roughly half of each American taxpayer’s dollar is spent funding the operations and obligations of this vast, uniquely unknowable, global American military infrastructure. Built, ostensibly, for America’s “security.” America’s energy security. Or, more exactly, the security of America’s energy supplies, most of which lie outside its borders. This is the price of our chimerical, almost whimsical “Way of Life.”

If Vermonters wish to generate their own power, they can. They don’t need to depend on the death of fellow Vermonters in Iraq and Afghanistan, of miners in West Virginia (see Jeff Danziger’s letter to the editor, page 3), or on the racist destruction of Cree lands in Quebec (Hydro Quebec), or the promise of an absentee landlord’s nuclear-safety guarantees for Vermont Yankee (see Ray Shadis’s article, page 1). Instead we need – simply but literally – to depend on ourselves.

We can insist, for instance, that our governor and legislators support wind farms – overriding NIMBYs both in and out of state. We can create a range of truly significant tax subsidies aimed at individual businesses, farms, and homeowners to invest in co-generation, biofuels (see Netaka White, and also Anita Kelman, pages 4 and 5), solar hot water, PV, micro-wind or hydro, and insulation, and provide incentives for replacement-age purchase of energy-efficient consumer durables like refrigerators and freezers. Or we can support innovative wind projects, such as that proposed by East Haven Windfarm (see page 3).

More: at the state and local level we can go all out to create the novel financing mechanisms necessary for the towns by the Connecticut River dams to buy those power stations, rather than letting outside private investors take them out of our commons – forever (see Dave Dunn, Hervey Scudder, and Rick Foley, page 1).

Were Vermont to undertake such moves toward energy independence in response to the evolving world energy crisis, it would not be alone. As Kirkpatrick Sale reports (see page 12), whole countries are doing so right now. And in neighboring Canada, Ontario’s premier has just announced a new policy permitting citizens who have formed cooperatives to install wind turbines, solar panels, biogas digesters, and small hydro projects “up to 10 MW in size” to sell their power to the grid “at a fixed price for 20 years.” Such “Community Power” will be “locally owned and developed,” and according to the Ontario Sustainable Energy Association, “Community Power has been shown to bring five times the jobs and investments to a local community than projects owned by outside companies.”

There are Vermonters now living who remember life under a radically different regime. They lived in and repaired houses their ancestors built, and heated them from their own woodlots. They lit and cleaned and cooked in their homes without electricity; grew their crops without petrochemicals; and traveled by horse-powered wagon or by train. These Vermonters are our link to a future that will once again be radically different from the past (i.e., both the past and the present, soon-to-be “past”). They show us it is possible to innovate radically, to change the practical basis of your own livelihood, and yet maintain your dignity as imperishable beings.

The example of their lives proclaims to us, their successors on the land: It can be done.

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Note: This issue of Vermont Commons was guest-edited by Rick Foley.

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Kirkpatrick Sale is the author of twelve books. His latest, from which much of this column was taken, is After Eden: The Evolution of Human Domination, to be published by Duke University Press this fall.

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Letter to the Editor

An Apology, Sort Of
(The Hypocrisy of Our Energy Policy)

(This letter from syndicated cartoonist Jeff Danziger was published in the Barre-Montpelier Times Argus on February 5, 2006, in reply to Gov. James Douglas’ response to an editorial cartoon. The letter is reprinted with the permission of The Times Argus.)

Gov. James Douglas has contacted me through intermediaries to voice his concern that a recent cartoon was unfair and unfactual. I can’t respond graphically without compounding the problem and leading to further hurt feelings, so I will revert to the written word.

The cartoon showed the governor aghast at the idea of wind power turbines, while the coffins of dead coal miners were behind him. Some apparently assumed that I was attributing to him a callous feeling toward the miners. This was not what I intended in my representation, since I don’t think that at all.

But my point is this: If you fly over the states of West Virginia, Kentucky, and portions of western Pennsylvania, you can see from as high as 25,000 feet the ravages of the coal mining industry – mountains destroyed, mammoth linear piles of mining slag, diverted rivers, and dead ponds filled with yellow mine effluent. This tragedy goes on for miles, in fact hundreds of miles. It is as ugly a thing as the human race has ever done to the planet, and most of the coal extracted at this cost has gone into the production of electricity.

No Vermonter would stand for this degree of destruction, nor anything close to it. The fact is that using electricity from these coal-rich states is a species of hypocrisy. When you turn on the power in our clean green little environmentally protected paradise, it comes at the cost of wreckage to the environment someplace else.

Naturally we prefer not to think of it. We persuade ourselves that we are stewards of the beauty and grandeur of the Green Mountains, Lake Champlain, our rivers and streams. And so we are. But someone else is paying. Remember that this hasn’t always been so. Early Vermonters denuded the forests of the state to graze sheep and burned the trees to make potash to clean wool. This was done for money.

Quarrying for granite and marble removed the tops of mountains and piled slag in heaps that are still visible. More recently the income from skiing has altered the horizon in a way that is utterly unnatural. All economic actions are compromises. Gov. Douglas’ inexplicable objections to large-scale wind power development remain a great mystery. But when the cost of electricity includes the lost lives of miners in some other state, it’s not just about the aesthetic value of an uninterrupted ridgeline. It’s about the value of human life. Families without fathers, sons, even daughters.

I’ve been down in a coal mine, and I am thankful I don’t have to earn my living there. Not too many Middlebury graduates down there, as I recall. It’s dark, dangerous work interrupted by falling rock and methane explosions.

It’s a hell of a way to die. That men must do this so we have reliable electricity is a trade-off that should be lessened whenever possible, and wind power holds out that possibility. European countries, Great Britain, the Japanese, and to a phenomenal degree, the Chinese, are putting up turbines everywhere.

So Douglas should not draw the conclusion he was responsible for the recent deaths in West Virginia. But he sets policy in this state, and he should realize the cost of these policies and explain himself. Wind power won’t alter our reliance on coal and nuclear electric generation, but it is cleaner and safer and, once the capital costs are recovered, damn near free. To stand in the way of such development is perverse, and to pretend that we bear no responsibility for mining accidents is air-headed.

The policy, Gov. Douglas, needs rethinking, and soon (even President Bush says so). Thus, ill-advised commentary – like the cartoon you object to and I apologize for – can be avoided.

JEFF DANZIGER

Artist’s rendering of the proposed East Mountain Demonstration Project, which would consist of four wind turbines providing power to a local municipal utility. The project, proposed by the Montpelier-based company East Haven Windfarm, appears stalled in the regulatory process. PHOTO: DEBORAH LAZAR
As the environmental, economic, and energy-security concerns associated with a dependence on petroleum become more evident, Vermonters need to explore alternatives to fossil fuels and to develop both the supply and demand sides of these alternative fuel markets.

An integral part of these changes is the understanding that simply replacing our current level of energy consumption with renewable fuels or solar, wind, or hydrogen power cannot get us out of the fix we’re in. Along the path to increased use of renewables, we will each have to wrestle with the American culture’s push for faster, bigger, and more and more. We need to apply our collective knowledge (and political pressure) to living well with slower and smaller and enough-is-enough.

The anxiety and risks we face from global warming, Peak Oil, nuclear proliferation, and spiraling fuel costs have encouraged many of us to reexamine our lifestyle patterns and find for ways to reduce our energy consumption. We soon recognized the unsustainable nature of our near-total reliance on fossil fuels to transport us, warm us, feed us, clothe us, and build our prosperity. If we are paying attention to the warning signs, don’t we have the responsibility to make course corrections while we still have the means? Why wait for nationally mandated fuel efficiencies, other obvious conservation measures, or even the promise of a “hydrogen economy” when supplies of conventional feedstocks (e.g., soybeans and rapeseed) and emergent agriculturally based fuels can and should play a greater role in our transition toward a more equitable and sustainable future?

Among the grassroots groups sprouting up across Vermont to deal with energy issues, a group representing a range of political, social, and economic vantage points convened a series of meetings a little more than two years ago to foster development of a sustainable biofuels sector. The discussions brought into focus several biofuel strategies and their potential for providing for a portion of our local energy demand: on-farm crops, and careful forest stewardship to produce firewood and biomass.

From these meetings the Vermont Biofuels Association (VBA) was formed as a nonprofit trade group whose mission is to build demand and capacity for locally produced biodiesel and other agriculturally derived fuels, and to serve as a resource for the development of a sustainable biofuels sector in Vermont.

Biodiesel, being a renewable, vegetable-based fuel, also blends easily with petroleum and is compatible with all compression ignition (“diesel”) engines and equipment including furnaces and boilers that run on No.2 oil. Blends of biodiesel are based on the percentage of biodiesel in relation to diesel fuel. B20 is 20-percent biodiesel (typical winter mix); B100 is straight biodiesel used in summer months.

When compared with straight petrol, these blends have less-harmful impacts on human health and significantly reduced greenhouse gas and particulate emissions. While it may increase oxides of nitrogen slightly (a precursor to smog), biodiesel is the only liquid fuel commercially available that has the distinction of providing more than 200 percent more energy than it requires to produce it (according to the most thoroughly peer-reviewed studies on record in the U.S. and Europe). And since the feedstocks to produce biodiesel are currently grown on Vermont’s farms, the combined benefits of biodiesel are moving Vermont toward greater energy and fuel security, increasing local economic opportunities, and making for a cleaner environment.

Since the launch of the VBA there has been a 40-fold increase in the supply of biodiesel in Vermont (see graph). While the VBA can’t take all the credit for this impressive statistic, the association has shared a leadership role in several initiatives that have led to a more-informed commercial sector, which has resulted in greater demand for biodiesel at all levels. The two-year Vermont Biodiesel Project is one such initiative. Supported by the Vermont Sustainable Jobs Fund, U.S. Department of Energy, Vermont Department of Public Service, and the office of Sen. Patrick Leahy, the project has generated goodwill and real momentum by taking a collaborative approach to statewide market development that focuses on the local level.

For instance, the towns of Hartford, Marlboro, and Norwich now use B20 in the town trucks and emergency vehicles, Green Mountain Power’s entire fleet runs on biodiesel blends from B5 to B20, Motorcoach fleets as well as the UVM bus fleet run on B20, and Vermont loggers, excavators, grounds crews, and delivery trucks are switching to biodiesel. In addition, biodiesel blends heated several state buildings, more than 120 homes in Middlebury, and dozens more in Addison and Chittenden counties. The VBA and the Biodiesel Project partners have forged alliances among commercial scale “fleet and heat” end-users, Vermont’s petrol and biodiesel suppliers, town energy committees, several of our state agencies and renewable energy groups, and Vermont’s agricultural community.

The result: a more intelligent discussion of state energy policy, increased knowledge of the characteristics of biodiesel, hundreds of tons of harmful CO₂ avoided, and more widespread availability of the fuel in our communities.

The biofuel alternative

Any serious consideration of an independent Vermont must seek to strengthen these networks that include our farms, our locally owned biofuel-production facilities, and Vermont’s family owned fuel-supply businesses. This writer can almost detect a groan from those who would like to imagine an independent Vermont with no petroleum at all. But such a scenario is not just impractical; it overlooks the contribution from the responsible use of fossil fuels as we make a transition through the long Twilight of the Petroleum Age.

The soaring costs of fossil fuels threaten farmers with potentially devastating effects in the form of increased operational costs. Since biodiesel currently ranks as the most promising renewable, homegrown liquid fuel, even “small-scale” production (less than 1 million gallons per year) can support rural economies, improve regional air quality, and help insulate farmers and consumers from fossil fuel price and supply fluctuations. While most of the national-level biofuel development is focused on large-scale, industrial farms (20 million to 80 million gallons per year), New England farms fall outside of this model and grasp for ways to remain viable. Yet it is possible to see a shift toward renewable fuel alternatives when we focus on local-scale and regional solutions.

From Alburg to Brattleboro, not only is biodiesel being integrated into the existing fuel-supply infrastructure, but also more and more farmers are realizing that it makes sense to produce biodiesel on their farms to meet their operational needs. In just the last two growing seasons, several Vermont farms have begun cultivating feedstock or seed-oil crops for biofuels such as soy, mustard, sunflower, and rapeseed (canola). These same farms are also running their equipment, harvesting their primary crops, and heating their commercial greenhouses

continued on page 5
Is the Solution to Home Heating in Our Own Backyard?

By Anita Kelman

Concern over space-heating costs, for both homes and commercial use, has been in the news lately. Rising energy prices for oil and natural gas, as well as "Peak Oil" issues, have focused attention on the need for alternatives, especially here in the Northeast with our long, cold winters. Additionally, the increasing evidence of climate change has emphasized the connection between the use of fossil fuels and greenhouse gas emissions.

Although burning cordwood, corn, or wood pellets in conventional biomass stoves works, there are numerous issues associated with these renewable energy sources. Cordwood involves the cutting of trees, handling of large quantities of firewood, emissions of particulates and other pollutants, and release of the carbon sequestered in the trees, adding to greenhouse gases. Burning corn in pellet stoves raises questions about efficiency due to the high level of energy needed to grow the corn and the secondary impacts associated with growing a row crop, including fertilizer use and soil erosion. Wood pellets are increasingly in short supply, due to efficiencies in logging operations and sharp increases in demand.

Attention is now being paid to the potential use of grass as a space-heating fuel. Historically, peasants in Europe and settlers on the Great Plains utilized grass, in primitive forms, for heating. Recent research, primarily at Cornell and McGill universities, as well as Research Efficient Agricultural Production (REAP) in Canada, has focused on the potential of grass as a fuel, utilizing new technology.

The basic scenario is as follows: Grass, either a warm-season variety such as switchgrass or a cool-season such as reed canarygrass, would be mowed as hay once a year in the fall. The mowed grass would be left in the field for up to two weeks to allow leaching to take place, reducing the mineral content of the grass. After being baled at standard cuttings and sharp increases in demand.

From a climate-change standpoint, it appears that grass pellets could be virtually carbon neutral, other than the energy used in production. Energy used for nitrogen fertilization could be replaced by animal manure. As a renewable resource, the carbon released through pellet burning would be sequestered again the following year in the grass crop.

The Canadian research group REAP estimates that 150 million acres could be utilized for grass pellet production in North America without significant impact on food production. REAP estimates that the U.S. could replace the equivalent of 39 percent of its yearly oil imports by growing grass for pellets on 14 percent of its farmland. As Cornell researchers point out, it takes 70 days to grow a crop of grass pellets for fuel, compared to 70 million years for a crop of fossil fuel!

Multiple issues must be addressed before this promising technology can be adopted. For starters, there are no pellet stoves, furnaces, or boilers currently designed specifically for burning grass pellets. Cornell tested a number of different style stoves and reported the results, decidedly mixed, on its website. This winter, Jim Wuertele, a retired appliance engineer and founder of the Vermont Agrifuels Institute, tested a pellet stove that had its software "tweaked" for grass pellet burning. Wuertele will be communicating his findings to its manufacturer. Stove manufacturers will need to design a variety of stoves and furnaces that can utilize grass pellets, including units that allow for operation either off-grid or with minimal power back-up during power failures.

Wuertele has signed up more than 30 Vermont farmers interested in producing pellets. He has also arranged for a pelletizer to be brought down from Canada in November for trial runs. The Quebec-manufactured, portable pelletizer carries a $300,000 price tag. The unit, therefore, could either be transported via tractor-trailer to pre-arranged sites on specified dates, or housed in a central location to receive baled hay.

The Grass Energy Collaborative, formed this past December, is focusing on promoting grass pellets as a viable heating source here in Vermont. Jock Gil, a founding member of the collaborative, states that its mission is "to create the grass energy sector and the culture to support it." Currently, members are working on raising funds, promoting the involvement of more companies and other entities, and striving to produce pellets this year. They are hoping to produce the first-ever conference devoted solely to grass pellet technology at Shelburne Farms in October.

However, Gil cautions that there are many hurdles still to surmount, and questions to be answered, in order for grass pellet technology to become a viable fuel resource. What will grass pellets sell for? How much will stove options cost? And how will these costs compare to conventional heating costs? Will the test run of the Canadian pelletizer happen, and will enough "early adopters" be ready to test their stoves? In any case, purchase or assembly of a pelletizer that will reside in Vermont is high on Gil’s list of desirable outcomes.

Grass pellet technology has obvious potential benefits for Vermont. As a virtually carbon-neutral fuel source, it grows readily in our own “back yards” and promises increased energy security, reduced greenhouse gas emissions, an additional income stream for farmers and landowners, and contributions both to open-space preservation and wildlife habitat. Sounds like a recipe for energy independence.

Web Resources: reap-canada.com, grassbionergy.org

White continued from page 4

on 100-percent biodiesel that they have produced themselves – at half the cost of buying petroleum!

Eventually these biofuel production processes will also generate additional income, as well as high-protein meal for livestock (as a by-product). Some of these “energy crops” are being produced without the use of fossil-based fertilizers or pesticides, while others are using conventional methods. We have arrived at a time when our neighbors are exploring cooperative relationships around the production and distribution of energy. If ever there was an opportunity to develop a “Vermont Brand” of biofuel – a truly “green” portable fuel, a “natural” product free of genetic engineering and outside corporate control – it’s now. From what we’ve seen, the citizens of the Green Mountains are of a mind and means to lean toward such an option.

Vermont’s native energy pioneers are working on the possible, practical and attainable: folks like Roger Rainville and Heather Darby (the Rainville Farm in Alburg), Richard Wiswall and Sally Coleman (Cate Farm in Plainfield), Sally Hewes and Larry Scott (Ekolott Farm in Newbury), and John Williamson and Steve Plummer (Stateline Farm in Shaftsbury). And the list is growing. Not only are our farmers on the fuel frontier serving as models for self-sufficiency, they are pointing the way for Vermonters to reclaim our heritage built around family farms, native energy sources, and local foods.
Where does this leave the radioactive waste produced by Vermont Yankee? At a recent Vermont Public Service Board (VPSB) technical hearing, no one blinked when a radioactive waste dump—in the form of steel-and-concrete storage silos with a 100-year life expectancy for spent fuel—was proposed for the Vermont Yankee riverbank site in Vermont. This proposal-of-last-resort for local storage of high-level nuclear waste, be it for 40 years, 100 years, or indefinitely, stands in stark contrast to what the federal government and the nuclear industry promised Vermonters back in the 1960s: safe, clean, economical, spent nuclear-fuel recycling and waste reduction.

The whole sad chain of events that brought Vermont to this crisis began with Eisenhower’s Atoms for Peace program in the late 1950s. It was designed, some say, to put a happy face on the peak of the nuclear arms race that we who are old enough to remember shudder to recall. Across the northern hemisphere mother’s milk was turning into nuclear waste, partly because it was laced with radioactive strontium-90 from weapons fallout. Ike cynically quipped that public opposition could be defused by confusing them on the difference between fission and fusion. Nuclear scientists concluded that if the cost of civilian nuclear (for generating electricity, making steel, mining, and even blowing a new trans-ocean canal through Nicaragua using chain of nuclear explosions) added up to only a 10-percent increase in the mutation rate, it would be worth the price.

Atomic Energy Commission (AEC) teams were deployed across the globe to promote nuclear power plants and to find utilities and industries willing to build them. While the AEC optimistically slated New England to host up to 50 of the 1,000 reactors proposed for the entire country, AEC had to “convince” reluctant New England utilities that if they didn’t build atomic plants, then AEC would find outside investors who would. As a result of AEC’s coercion, the utilities agreed to form consortia, mutually investing in each other’s plants, while retaining at least 51-percent ownership within each host state.

In 1963 the first New England plant, the 200-megawatt Yankee-Rowe reactor, was brought online through the contributions of heavy federal subsidies, soon followed by Maine Yankee (800 MWe), Pilgrim (650 MWe), Millstone 1 (650 MWe), Connecticut Yankee (600 MWe), and Vermont Yankee (320 MWe). Central Vermont Public Service Corp. and Green Mountain Power owned controlling interests in the Yankee Nuclear Power Corp., which brought its Vernon reactor online in November 1972. Of these original, first-generation plants, only Pilgrim and Vermont Yankee continue to operate. Rowe, Maine Yankee, Connecticut Yankee, and Millstone were all permanently closed between 1991 and 1997 following comprehensive examinations that uncovered numerous safety and design defects that were considered too expensive to remedy. It is toward to note that up until the time these reviews were finalized, management at each closed facility had considered them to be excellent plants and well poised for 20-30-year license extensions. So far Entergy has avoided the same level of inspection for its Vermont Yankee and Pilgrim plants.

Meanwhile, something unexpected happened on the way to the 1,000-reactor scenario. In 1975, a fire burned out hundreds of electrical cables at the Browns Ferry Nuclear Station in Decatur, Alabama, leaving operators unable to bring the reactor to shutdown for two days. This event dried up investor funds. No new plants have been ordered, funded by private capital, since the Browns Ferry Fire. As of June 2004, only 132 U.S. commercial power reactors were constructed; only 104 remain licensed to operate, and 28 are permanently shut down.

The meltdown at Three Mile Island in 1979 and the melt, fire, and explosion at Chernobyl in 1986 confirmed Wall Street’s anti-atomic stance up until the moment. Between 1974 and 1995, 98 pending commercial power reactor license applications for 66 sites were cancelled.

But back in Vermont in 1998, the Vermont Department of Public Service chartered the Vermont Yankee owner-utilities for not seeking a power uprate on the order of 5 percent. Ironically, VY owner-utilities, facing rising operating costs, witnessing the closing of sister “Yankee” plants and anticipating the regulatory axe to fall, were investigating how to decommission the plant without a fully funded reserve for that purpose.

VY owners, most likely to claim they had made a diligent attempt to recover their shareholders’ investments in the nuclear market, decided to sell the plant to the highest bidder. In 2001 Vermont Yankee Power Corp. petitioned the VPSB for a Certificate of Public Good—and damn near got it—permitting sale of the plant to Ameren Corporation for approximately $12 million. I was in the hearing room toward the end of these purchase proceedings in 2002 when officials representing Entergy, a $14 billion Louisiana-based corporation with 14,000 employees, walked into literally unannounced. The VPSB immediately granted intervenor status to Entergy, although the energy giant had none of the qualifications required of ordinary intervenors for a Vermont proceeding. Entergy was an out-of-state entity with no legal, investment, or consumer ties to Vermont. The only ones in the room who did not appear surprised were the VPSB and the Public Service Department. Ah, the power of the nuclear industry’s “Big Money”!

In short order VPSB set aside the Ameren deal and Entergy officials returned with an offer to purchase Vermont Yankee for close to $220 million—a price based on an aggressive three-part plan to boost reactor power to 120 percent, extend the plant’s operating license, and make room for the added radioactive waste by shifting some spent fuel to outdoor dry cask storage.

At that moment the die was cast for the string of contentious regulatory decisions on both the state and federal levels that are pushing Vermont into the permanent radioactive waste-dump business.

**A question of oversight**

VPSB opened the door to a nuclear Trojan Horse—VY as a “merchant plant” that is no longer owned by regulated in-state utilities and answers only to federal regulators. To its credit, VPSB listened to the warnings generated by the public-interest intervenors, including New England Coalition, Conservation Law Foundation, and Citizen’s Awareness Network, and granted approval of the sale, but on one condition. VPSB required Entergy to apply for a Certificate of Public Good for each of the three initiatives—license extension, and dry cask fuel storage. Of course, the worth of these conditions depended on the actual level of aggressive, proactive review.

It has proved to be small compensation for the fact that the sale of Vermont Yankee to an unregulated out-of-state owner essentially removed Vermont Yankee (save for these few conditions and a limited-term power contract) from further state jurisdiction. In 2012, Vermont, while locked into hosting all of the plant’s waste and assuming most of the risk for a disaster, will lose its current contract for discounted power and its jurisdiction over the plant. Vermont will be left with no say over any aspects of the plant’s operation. None.

At this juncture, the VPSB has already (and why would anyone think otherwise?) approved the uprate and will soon approve dry cask storage based on Entergy’s $4 million-to-$6 million contribution to (oh, the irony) a clean energy fund. With regard to the third leg of its agenda, Entergy has announced that it will secure federal approval of its license extension before bringing the issue to VPSB. This smart move will effectively limit the VPSB to dithering about the fact that Vermont is addicted to Vermont Yankee for about one-third of the state’s baseload electricity.
“Friends of Vermont Yankee” in state government, aided and abetted by well-funded corporate lobbyists in Montpelier, have so far succeeded in neutering efforts to bring on-line renewable, sustainable energy resources – most recently the state’s aborted attempt to purchase the hydroelectric dams on the Connecticut River – to displace Vermont’s only poison power station.

Since that monumental “non-decision” on the dams based on “risk to the state,” Vermonters have learned just how negligent the Republican administration and Democratic-controlled Legislature have been in developing a nuclear-free energy future. An examination of transcripts from the recent VPSB dry cask hearings will show that under cross-examination Department of Public Service witnesses admitted that inventories of appropriate energy mixes – recapture or generation-equivalent potential from distributed generation, energy efficiency, conservation, co-generation, and alternative sources (such as Canadian hydro) – have simply not been done. Public Service Department witnesses also admitted that the most obvious and elemental examinations and comparisons of the economic and rate-impact effects of closing similar antiquated nuclear power stations in Maine, Connecticut, and Massachusetts, have not been done with regard to Vermont Yankee.

‘IT’ is coming

Along with the near-total collapse of the federal nuclear waste program, Vermonters must contemplate the evidence that the unthinkable nuclear accident can happen – happen today or tomorrow, and happen here. First the Browns Ferry, then the Three Mile Island near catastrophes. Now this winter we’ve read about the narrowly avoided disaster at the Davis-Besse plant in Ohio; the NRC fined the plant’s owners $25 million for failure to locate a boric acid leak that ate through six inches of steel reactor pressure vessel, leaving less than three-sixteens of an inch of rust-proofing liner. That the reactor escaped a meltdown are miracles, which no fine, no matter rust-proofing liner. That the reactor escaped a meltdown are miracles, which no fine, no matter how punitive, can cover up.

A realistic assessment of the risk (probability-x-consequences) of hosting a first-generation commercial nuclear plant raises a basic statistical question: Can It – the big accident – happen here?

There is no credible question of uncertainty. The next major release, meltdown, or nuclear fire cannot, in terms of scientific accuracy or moral honesty, be labeled an accident. It is an inevitability. The only viable questions are, “Where will it be?” and “How bad will it be?”

Can Vermont pull itself away from the nuclear disaster roulette wheel by 2012? Not if the NRC license review team functions as the ultimate authority. Will Vermont hold hostage dozens of future generations of Vermonters to a radioactive waste dump? Apparently yes. Entergy has bribed the VDPS with $4 million to $6 million for a renewable energy fund in return for permission to install dry cask storage. Only a last minute Vermont legislative action may avoid these pacts with the devil.

Who could believe Vermonters would aid and abet what may best be described as an intergenerational mugging?

Is this the Vermont way?

‘Drill and Kill’

By Gary Flomenholt

“I Paid My Income Tax Today”
(excerpt: revised)
by Irving Berlin
Commissioned in 1942 by the U.S. Treasury Dept.
I paid my income tax today
I never felt so proud before
To be right there with the millions more
Who paid their income tax today
I’m squared up with the U.S.A.
See those bombers in the sky?
Rockefeller (Lockheed) helped to build ’em, so did I.
I paid my income tax today.
I paid my income tax today
A thousand planes to bomb Berlin (Baghdad)
They’ll all be paid for and I chipped in
That certainly makes me feel okay
Ten thousand more and that ain’t hay
We must pay for this war somehow.
Uncle Sam was worried but he isn’t now
I paid my income tax today.

Flush, whoosh, gurgle, gurgle. What’s that sound? Your tax money being flushed down the gold-plated military toilet into an endless cesspool in the Middle East. To protect what? Oil? The dollar? Freedom-loving Americans from freedom-hating terrorists?

How much? $2.5 billion so far. Linda Bilmes and Joseph Stiglitz say it will be more like $2 trillion if all the post-war veteran costs and the like are counted. Check out their study, “The Economic Costs of the Iraq War,” at www2.gsb.columbia.edu/faculty/jstiglitz/cost_of_war_in_iraq.pdf

How much of your tax money goes to the U.S. military? During the Vietnam war the feds began the policy of adding in Social Security funds with other funds to make the military look smaller. Removing this deception and allocating 50 percent of the defense budget to military spending, the War Resisters League estimates that 49 percent of the federal budget goes to military expenditures, amounting to $1.02 billion in 2007 out of the $2.251-billion budget.

You do the math. If your family paid $6,000 dollars in Federal Income Tax, you’re giving almost $3,000 to fund the war machine – its charges for prior responsibilities (retirement benefits, veterans health care, etc.) and current expenses.

So what exactly does your $3,000 pay for? A worldwide military presence, including more than 500 “stations” or bases in more than 120 countries or territories. When the Cold War ended with the fall of the Berlin Wall in 1989, Americans were promised a “Peace Dividend.” But with the disappearance of archrival U.S.S.R., the U.S. military/industrial/intelligence/pharmaceutical complex crafted a comprehensive plan to ensure American corporate access to the world’s natural wealth, in particular petroleum resources.

Remember it was Jimmy Carter in 1980, responding to the Soviet invasion of Afghanistan, who said that Soviet troops posed “a grave threat to the free movement of Middle East oil.” The “Carter Doctrine” proclaimed: “Let our position be absolutely clear: An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force.”

So let’s not make the mistake of thinking the current debacle in the Middle East is solely a neo-con affair. The current Republican administration is more blatant and clumsy about it, but the policy is bipartisan. Listen to most Democrats on the Iraq war, and you’ll find they have little objection. They’ll just do it “better.”

Energy is not a technical problem; it’s a political problem. Energy prices are expressions of a political economy. Different politics, different prices. Governments can make any energy system the cheapest based on their energy policy. Right now Big Oil – and its subordinate partners in the fossil fuel production and distribution system, including those in the centralized electric power grid – rules the federal government, which in turn “regulates” interstate commerce.

Some say the Bush Administration doesn’t have a policy on Peak Oil, which is the point at which oil extraction peaks and thereafter the demand exceeds supply. We’re hitting the world peak now, and you can guess what will happen to prices. Since U.S. oil peaked in 1970, we now import 60 percent of our oil. But the neo-cons are well aware of Peak Oil. Matthew Simmons, who wrote Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy, is a key Bush advisor who served on VP Cheney’s secretive 2001 Energy Task Force.

In 2002 George Bush claimed, “We need an

continued on page 9
Vermont holds the title as New England's largest exporter to IOUs, the more than 2,000 public consumers. How come? Because compared to IOUs, the more than 2,000 public power entities tend to be leaner (less management overhead), more flexible (re-investing “profits” in their systems and energy conservation), and more responsive to consumers (whose votes provide a direct voice in policies and decisions).

While paying some of the region's highest electric high rates, Vermont holds the title as New England’s largest exporter of inexpensive “green power.” The eight dams generate the equivalent of 20 percent of our state’s demand for electricity, but the string of out-of-state IOU owners has shipped most of it down-country for handsome profits. In an odd twist of fate, the dams’ previous IOU owner – USGen, a subsidiary of PG&E, held title and FERC license from 1997 to 2004 – defaulted on loan payments and was forced to put the dams up for sale in bankruptcy court. A strong grassroots campaign launched by NECIS, combined with the adroit non-partisan leadership of State Rep. Steve Darrow and State Sen. Vince Illuzzi, spurred the Legislature to pursue Vermont ownership of the dams.

Enter Gov. Douglas, who said all the right words about looking objectively at both sides of the issue – the benefits of Vermont ownership and the risks. Meanwhile, he quietly made known his objections to the concept of public ownership of natural resources, especially for power generation. The governor felt that the state’s energy problems should be left to the private sector – IOUs.

So how did the governor proceed? First, he orchestrated the Republican Party’s attempts to kill the dam bill, but he lost that battle in 2003 when the Legislature established and funded an “Authority” (Renewable Power Supply Acquisition Authority) to research the opportunity and develop strategies to buy the dams. However, the governor managed to slip a poison pill into the process by appointing his loyal foot soldiers (including former IOU executives) to a majority of the seats on the Authority.

NECIS followed closely the Authority’s $250,000 budgeted “objective fact-finding.” We attended hearings across the state and studied the reports issued by Lexecon, the consulting firm contracted to assess the feasibility of state ownership. Lexecon consultants produced reams of complicated formulas, graphs, charts, and arcane investment-banking language to calculate the risk to the state’s credit rating in taking the $500 million project. Conversely, Lexecon allowed less than two pages to a generic list of possible benefits to state ownership. In short, Lexecon followed the administration’s orders to stack the deck against the purchase.

The Authority then recommended that Vermont should work in secret (executive sessions) with some IOUs to form a consortium to bid on the dams in bankruptcy court. Vermont would be limited to “junior” status with no more than 25-percent ownership. In other words, the “senior” IOUs would use the state’s excellent credit rating to obtain lower interest rates on their purchase bonds and retain control of the partnership’s decisions. In 2004 the Legislature passed a bill authorizing $500,000 for the venture and creating the Vermont Hydroelectric Power Authority (VHPA), to which the governor appointed no one from the Connecticut River valley, but rather his personal energy czar, three IOU executives, and a former IOU CEO.

Turns out Vermont’s senior partners were two Canadian IOUs, which would have put two foreign transnational in control of our rivers and our electricity. But after months of secret negotiations the deal died and another Canadian energy giant, TransCanada, wrangled into bankruptcy court and purchased the dams for more than $500 million – peanuts, according to its ledgers.

Where and at what cost we – and the rest of New England – get our electricity in the near future is a real problem. We either lose Vermont Yankee’s 30-percent contribution in 2012 when the plant is scheduled to close, or in 2032 if its license is extended. The Hydro Quebec contracts start ramping down in 2012, to a relatively token flow (10 percent of the current contribution) four years later. These losses add up to a potential short fall of almost 70 percent of our current supply by 2016.

How does the governor’s administrative team plan to cover this “supply gap”? Keep Vermont Yankee operating at 120 percent (the contentious uprate) for an additional 20 years (license extension from 2012 to 2032), with additional spent fuel stored on-site in a semi-permanent radioactive dump. And purchase 40 percent of our power from the ever-more-costly New England grid and – cross your fingers – Hydro Quebec. All this, while watching TransCanada, an absentee Canadian IOU, sell the stable, low-cost hydropower produced by our rivers for big bucks out of state.

The powers in Montpelier clearly chose their IOU friends and their big-bad-business-as-usual agenda over serving Vermont’s electricity consumers. Didn’t Ethan Allen and his friends object to something similar — the Crown’s support for neighboring big-bad-businesses (New York, New Hampshire, and the East India Trading Company) that wanted to claim Vermont’s natural resources for themselves?

The Town of Rockingham did rebel against the IOU agenda by attempting to purchase the Bellows Falls dam, but that aborted attempt proved again how things can go wrong if Vermont’s executive branch rejects common ownership of hydroelectricity and is committed to private (read: IOU) control of dams and generating facilities.

A formula for public purchase
However, the recent Supreme Court ruling supporting New London, Connecticut, in its seizure of private property by eminent domain sheds new light on the dam deal. One of the least evident but surprising facts about converting hydroelectric resources in Vermont to common ownership is how relatively simple and risk-free it could be if Vermont’s Legislature and governor were truly behind the project. The most immediate benefits of common ownership would be stabilization of local tax bases and greater local control of electric power distribution and rates. Down the road, local ownership means more energy independence for Vermont.

The Legislature could start by confirming that Vermont towns could use eminent-domain power to purchase the facilities in their towns. Confirmation from New Hampshire’s Legislature would also be helpful in purchasing the entire real estate package. Then, any Vermont town with a portion of the dams in its boundaries would have the option to purchase the entire facility through eminent domain, which it would do in conjunction
with its New Hampshire neighbor’s similar emi-
ment-domain proceeding.

The simplest, most risk-free basis for common
ownership would have the Vermont Legislature
authorize bonds for local municipalities to use to
purchase hydro-electric facilities located in their
towns, including ancillary facilities in adjacent
towns. Proceeds generated by sale of the bonds on
Wall Street would pay the cost of the eminent-
domain takings in both states. This is important
because partial takings by eminent domain are
questionable under federal regulations.

What’s in it for the towns? First and foremost,
tax stabilization. Although the towns would own
the facilities (the Vermont town would own the
generating facility, the New Hampshire town
would own the dam, or visa versa), the generating
facility would provide to each town a payment in
lieu of taxes (PILOT) every year. The towns
would, in effect, be in control of a significant por-
tion of their tax base, and no longer be subject to
appeals of their assessments – appeals that cost
towns money to contest in court and which can
dramatically reduce tax revenues.

Theoretically, each town could choose its own
system operator. However, the benefits of shared
O&M (operation and management) suggest it
would be logical for towns to select a common
operator. A common operator would reduce
costs, allow for effective resource management by
regulating water flow, share risks (by sharing rev-
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tation of other industrialized countries.

The Rockingham experience highlights the fact
that it is difficult to expect local municipalities to
shoulder the risk of purchasing and operating the
dams without support on the state level. Using
bond proceeds, however, pushes the risk of pur-
chasing the dams to Wall Street, which is well-
equipped to evaluate and accept risk as it sells
bonds to investors. Bonds are repaid from elec-
tricity generated by the plants; pooling generating
capacity minimizes the risk to any facility, and
using a central operator minimizes the opera-
tional risk yet leaves towns with control over how
that operator makes fundamental decisions.

It’s time to buy the dams. From a local perspec-
tive, in a single bold stroke, we would have
answered the mantra of the nuclear energy propo-
nents: if Vermont Yankee closes in 2012, how are
you going to replace the nuclear power plant’s contribution to the state’s supply? The dams
would offset 80 percent of Vermont Yankee’s con-
tribution to the current mix with reliable, afford-
able “green power,” and more than double the in-
state, renewable generation in Vermont’s energy
independence portfolio.

\begin{quote}
Flenonholts continued from page 7
energy bill that encourages consumption.’ The
Bush administration does have a comprehensive
energy policy that fully accounts for Peak Oil.
That policy is Drill and Kill: Drill every square inch
of the U.S. that has oil, and Kill anyone who gets in
our way, in the Middle East or anywhere else.

Drill in Saudi Arabia and support a royal family to
“protect the Kingdom” from extremists. Drill in the ‘Stans, and when the USA-paid Taliban leader-
ship resists a pipeline deal, carpet Afghanistan with
drums. Drill in Iraq, feed Saddam Hussein’s war
machine WMDs to use against a neighbor and
domestic enemies. When he starts selling oil to
the European Union for euros, then employ “shock
and awe” to initiate regime change. Solidify the
Iraqis’ need to endure freedom with a long-term
military occupation that has claimed somewhere
between 30,000 and 100,000 civilian deaths (the $2 billion per-day budget for the occupation doesn’t
budget for verifying civilian casualties).

Drill and Kill — all thanks to tax dollars you and
I have dished out: the federal government’s unoffi-
cial, but blatantly obvious policy for guaranteeing
4 percent of the world’s populations access to 25 per-
cent of the world’s energy resources. When I paid
my income tax this April, I paid for Drill and Kill in
this great Democready of the “United” States.

\end{quote}

\begin{quote}
The costs of ‘cheap’

How deeply has this pathological form of “national defense” inserted its poison into energy prices?

Analysis of financial allocations within the U.S. mil-
itary budget pierces the myth of “cheap oil” and
“cheap gasoline.” The International Center for
Technology Assessment recently updated its report
on the external costs of gasoline, and estimates that
$47.6 billion to $113.1 billion in 2003 dollars of the
military budget is dedicated to protecting Middle
East oil. Dividing that by the 4.15 billion barrels we
imported results in an $11.47-$27.2 charge per barrel
for military protection. According to studies by the
International Center for Technology Assessment
(1998) and the conservative National Defense
Council Foundation (2003), when the hidden or
indirect costs of maintaining the vast network of
military bases are tallied up, American consumers
pay between $5.20 and $5.60 per-gallon for gasoline
— prices that are equivalent to or higher than those
of other industrialized countries.

And those figures do not take into account obvi-
ous environmental and health costs and a wide
range of other “externalities.” Drill and Kill, the
hidden parasitic economy feeding off Americans’
addiction to “cheap gas.”

Oh, and don’t forget the $8 trillion—heading to
$9 trillion – debt financing of the U.S. budget. As
long as everyone needs dollars as the world
reserve currency to purchase oil on the NYMEX
and London’s International Petroleum Exchange
(PIPE), the dollar is essentially backed by oil.
Everyone needs dollars to buy oil, so we can bor-
row as much as we want and never pay it back. Is
China going to cash in its treasury bonds, while
U.S. shoppers are floating their whole economy
through crap we buy at Wal-Mart? Doubtful.

But what about the Iranian oil Bourse? (Bourse
comes from French for exchange.) Much specula-
tion is ongoing in the blog-o-sphere about the
Iranian Bourse. Some say the reason we ousted
Saddam was that he started selling oil for euros.
Two months after the invasion, Iraqi oil was sold
again for dollars. Proof, say the Euro-dollar oil-the-
orists. The Iranian oil Bourse is seen as a possible
hidden agenda of the neo-cons, covered by the
nuclear-proliferation smokescreen. This story says
that when the Iranian oil exchange gets going soon,
selling oil for euros, it will result in collapse of the
dollar. (It’s collapsing quite well on its own, thank
you.) Others point out that the supply of euros is
limited by European conservative central banking
rules, which prevent an oversupply that could be
used for a world reserve currency. Regardless, the
Persian portion of the “axis of evil” certainly has an
incentive to sabotage the dollar of the “great Satan.”

In more selfish terms, the Drill and Kill policy –
combined with massive tax cuts that benefit the
super rich, a burgeoning federal debt ($8.4 tril-
lon), record-making trade deficits ($5.9 trillion
projected over the next 10 years) and federal poli-
cies that keep Americans addicted to “cheap ener-
gy”— robs Americans of the very investment doli-
ars needed to reconfigure the nation’s energy sup-
ply and distribution systems and its transportation
infrastructure, and to create new jobs in these sec-
tors that will be safe from outsourcing.

\end{quote}

\begin{quote}
Virtues of ‘decoupling’

Let’s address the skeptics who say that “renewable
energy can’t supply all our energy needs.” Iceland
and Sweden think they can do it, but what about
the U.S.?

Reduce the tremendous inefficiencies padding
our current energy consumption, remove the mas-
sive federal and state subsidies to fossil fuel con-
glomerates, and educate Americans to the true costs
of “cheap” gas, natural gas, oil, and electricity – in
other words, level the playing field. Then let’s see
how renewable energies stack up against fossil fuels.

The cornucopians will win the bet on electrici-
ty. In just three states – North Dakota, Kansas, and
Texas – we have enough wind potential to power
the entire U.S. electrical grid. A 140-mile by 140-
mile square of Arizona has enough solar energy to
power the entire U.S. grid. This potential doesn’t
include geothermal, hydro, biomass, ocean, and a
range of exotics, nor does it address the promise of
local renewable production, in particular the wide
range of residential/small-commercial wind,
solar, and biomass options. Sustainable production
of electricity isn’t the problem.

Vehicle fuel is a much bigger deal. We could
integrate more realistic CAFE standards, more
hybrid vehicles, and biofuels into the American
love affair with the automobile. And charge con-
sumers the true costs of gasoline to help them
make “more informed” decisions. An obvious
piece of the transportation solution would be to
invest in the classy, energy-efficient European-
style urban transit and continental rail systems.

Those Vermonters who claim we can’t kick our
addiction to “cheap gas” are either energy corpo-
ration apologists or consumer defeatists. Others of
us have faith in Vermonters’ inherent morality and
innovative ability. We just need to do two things.
We need to decouple ourselves from U.S. imperial
overreach, insane fiscal policies and an immoral
Drill and Kill energy policy. And we need our tax
dollars back to invest in energy independence.

\end{quote}
VERMONT LIBRE By Thomas Naylor

SURGING GOLD PRICES AND THE AMERICAN ENDGAME

Every time President George W. Bush opens his mouth, the price of gold goes up. When he declared victory in the war in Iraq on the deck of the aircraft carrier Abraham Lincoln on May 1, 2003, the price of gold was $320 per troy ounce. A few months later it was more than $400 per ounce, and by February 2006 a heady $575 per ounce. When the world is going to hell in a handbasket, people invest in gold. Wars, terrorism, recession, high budget deficits, supply shortages, energy price spikes, rampant inflation, and high interest rates all give rise to higher gold prices. The more misery there is, the higher the price of gold.

After being in the doldrums throughout the 1990s while the U.S. economy was booming, the price of gold started to rebound after September 11, 2001, a day which may be remembered as the beginning of the end of the American Empire as we know it today. Amidst a sea of American flags and patriotic hype, our mean-spirited, militaristic government called for unconditional allegiance to national unity, a war against Islam, an impotent homeland security bureaucracy, suppression of civil liberties, rendition of terrorist suspects, citizen surveillance, prisoner abuse and torture, regime change in countries such as Iraq, Iran, and North Korea, and a foreign policy based on full-spectrum dominance and imperial overstretch. With his bellicose talk, preemptive military strikes against Afghanistan and Iraq, massive military spending, and huge tax cuts and budget deficits, President Bush has proven to be the gold market’s best friend.

The price of gold is particularly sensitive to energy-price and -supply uncertainty caused by excess demand, storms, earthquakes, fires, strikes, wars, terrorist attacks, and political unrest. Some analysts speculate that if the United States attacks Iran, crude oil prices could reach $200 per barrel and gold prices might top $1,000 per ounce. The effect of the proposed Tehran Oil Trading Bourse on crude oil and gold prices remains a matter of speculation.

The financial establishment, meanwhile, understands full well that an investment in gold is an act of rebellion—a vote of no confidence in the American Empire, the U.S. economy, the dollar, and technofascism. If too many Americans start buying gold, things could really get out of hand. What would Wall Street spin doctors do? They might not be able to spin their way out of economic free fall on Fox News.

CALL FOR REPRESENTATIVES

TO THE FIRST NORTH AMERICAN Secessionist Convention

The Middlebury Institute herewith issues a call for representatives of active organizations and groups in North America concerned with secession and separatism to attend a convention in Burlington, Vermont, this coming November.

We are seeking to provide a forum where people with a serious interest in secession from the United States, Canada, and Mexico can present information on what each organization is doing, learn the policies and tactics of other organizations, trade ideas on organizing, strategizing, and politicking, assess the strength of the secession movement, and figure out ways to make it stronger and more successful.

It is understood from the beginning that there are many varied groups with secession as the core of their strategy, and it is unlikely that there will be any full consensus on platforms or goals. But if we can assemble articulate and active representatives from serious, ongoing groups that are working in their various ways to push the idea of secession at a regional, state, or multi-state level, we are convinced that we can advance the cause of secession throughout the continent and pave the way for some genuine successes.

The Middlebury Institute is willing to underwrite the travel costs for some of those representatives, especially from the Western reaches of the continent, who are unable to pay their own way. We are unable to absorb the two-night hotel room fees, but we will provide a conference room for a Saturday meeting and a banquet on Saturday night.

Individuals from real, active, serious, and ongoing secessionist and separatist organizations—please, no individual secessionists or the like—are urged to contact the Director@Middleburyinstitute.net if they wish to take part in the first North American Secessionist Convention.

Recent actions by the United States government, including the prosecution of illegal wars, the PATRIOT Act, the illegal rendition of “terrorist suspects,” prisoner abuse and torture, citizen surveillance, violations of our constitutional rights, the suspension of habeas corpus, a foreign policy based on full-spectrum dominance and imperial overstretch, and a culture of deceit have all given rise to legitimate concern that under circumstances of its own choosing, the federal government might not rule out (1) the suspension of the U.S. Constitution or Bill of Rights,

(2) the declaration of martial law,

(3) the militarization of civilian police functions,

(4) the suspension of free elections,

(5) the usurpation of individual property rights, or

(6) the negation of the Second Amendment right to bear arms.

In light of these troubling developments, the People of Vermont hereby reaffirm:

(1) our right of sovereignty,

(2) our right to nullify acts of the central government deemed to be unconstitutional,

(3) our right to secede from the Union, and

(4) our right to call a statewide Convention to decide whether or not Vermont remains in the Union.

Help put the Vermont Sovereignty Declaration to a vote at your town meeting in 2007!
Contact Jane Dwinell at info@vermontrepublic.org.
802.229.4008, or P.O. Box 1093, Montpelier, VT 05601.
One of the most immediate and obvious threats to life as we know it is our heavy dependence on foreign oil, natural gas, and other fossil fuels. From *Wind Power* to *Biodiesel* to *High Noon for Natural Gas*, these books on renewable energy tackle the biggest issues in energy policy and the smallest details of in-home installation.

Available at your local bookstore. To order direct call 800.639.4099 or visit www.chelseagreen.com.
A comprehensive global Environmental Sustainability Index (ESI) has been published regularly in recent years, the work of the Yale Center for Environmental Law and Policy and the Center for International Earth Science Information Network at Columbia University. It ranks 146 of the countries of the world according to a range of 76 "data sets," measuring such things as pollution levels, air and water quality, energy use, biodiversity, population control, and environmental regulations.

It should come as no surprise that, according to the 2005 index (the most recent issued), the leading countries are the most part relatively small, in both land and population, and relatively cohesive. The top five:

**In Energy Policy, Too, Size Matters**

<table>
<thead>
<tr>
<th>Population</th>
<th>Square Miles</th>
<th>GDP per Capita</th>
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<tbody>
<tr>
<td>Finland</td>
<td>5.2 million</td>
<td>130,000 $27,300</td>
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<tr>
<td>Norway</td>
<td>4.6 million</td>
<td>125,000 $37,700</td>
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<tr>
<td>Uruguay</td>
<td>3.4 million</td>
<td>68,000 $12,600</td>
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<tr>
<td>Sweden</td>
<td>9.0 million</td>
<td>124,000 $26,800</td>
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<tr>
<td>Iceland</td>
<td>300,000</td>
<td>40,000 $30,900</td>
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The United States, for comparison, with 285 million people, 3,794,000 square miles, and a GDP of $37,800, ranks 46th on the index.

Size is a critical factor, because once a country decides it wants to protect its environment and diversify its resources, it will discover there are scales where a government can work reasonably efficiently, with a minimum of waste and corruption, and those where it practically has to be riddled with ineptitude, mismanagement, bureaucratic rigidity, and bribery. Size matters, and independence — the freedom to act quickly and squarely — matters, too.

Energy use and efficiency is only one of the factors that go into the Environmental Sustainability Index, but it is an important one, and the leading ESI countries offer an interesting look at the kinds of things that the more far-sighted nations are doing these days. None of the top five is wholly perfect, but they each are basically dedicated both to energy self-sufficiency and a primary reliance on renewable fuels — and those are the key to a wise energy future.

Finland is an interesting case, and if self-sufficiency were an important part of the Sustainability Index, it would hardly rank where it does at the top. For Finland depends heavily on imported fuels, chiefly gas and oil from Russia, and has only recently embarked in a serious way on biomass power plants, though it is the most densely forested country in Europe. It supplies only 30 percent of its energy from domestic sources — 19 percent from wood, 7 percent from peat, 2 percent from hydro, and a smidgeon from 30 wind-power plants. The crucial thing, though, is that Finland knows that it needs to wean itself from foreign fuels, and quickly, and has established a national program, one of the first in the world, to promote more local generation, particularly through taxes favoring biomass production, and to increase energy efficiency so as to be less dependent on imports. And experience has shown that when Finland embarks on a plan, it is likely to be carried through with dispatch.

Norway is almost the complete opposite in fuel sources: it is self-sufficient. It has its own oil and gas from the North Sea, and has, incidentally, reduced to zero the emission of hazardous chemicals from the offshore platforms. More than 99 percent of its electricity comes from hydropower, and it is slowly starting on a scheme to develop wind power, which would be a natural given its long Atlantic Ocean coast. Since 1982 the city of Oslo has raised funds from electricity taxes to embark on a large ($110 million) program of energy efficiency in housing, which has seen more than 20,000 houses retrofitted to maximum efficiency. And the measure of the government's commitment to environmental stability is a 16-point National Indicators of Sustainable Development report recently adopted, to be overseen, interestingly, by the Ministry of Finance, since it is in charge of the annual budget and can set the appropriate targets.

Uruguay is a surprising entrant on the sustainability index, and it's a place that is hardly ever mentioned in energy conversations. But it turns out that it is a nation among the highest in literacy, education, social services, political cohesion, and standard of living, with governments that have been committed to energy efficiency since the 1990s. On the minus side, 60 percent of its energy is imported as oil and natural gas from Argentina and Brazil, though the plants that turn that into power are quite modern and efficient. On the plus side, the remaining 40 percent is provided by four hydroelectric plants on the Negro and Uruguay rivers, and that capacity is planned to expand in the next few years.

Uruguay had an energy crisis in 2003-2004, when Argentina fell short in its gas production and rainfall levels declined, leaving rivers depleted; but since then it has embarked on efforts to increase self-sufficiency. In March of this year Uruguay set up a government-run system to purchase 60 megawatts of energy from wind, biomass (chiefly wood), and small hydroelectric dams at slightly above market rates to encourage suppliers.

Though all the top nations have strong governmental commitments to the environment, Sweden’s stands out. It has established an Environmental Objectives Council that issues annual reports on the country’s progress; a Foundation for Strategic Environmental Research that has invested $16 million in research projects; a Ministry of Sustainable Development that oversees energy, housing, climate, conservation, and the like; a Council for Sustainable Development to do similar work by the private sector; and an Environmental Technology Council to coordinate and promote advanced sustainable technologies. At the moment the country gets 20 percent of its total energy budget from biomass — most from its extensive forests — and about 5 percent from wind power. But all renewable energy sources are on a path of research and development, with an annual budget of more than $100 million. And the government has pledged that it will be "oil free" and energy self-sufficient by 2020.

Finally Iceland, whose energy story is so dramatic and important that it makes one wonder why it is only fifth on the sustainability index. For Iceland, of all the developed world, has the largest percentage of its energy — 70 percent — produced by a clean and renewable energy source: geothermal. The plants that use geothermal are pollution-free, as are their wastewater, and the electricity and hot water they produce are cheap. In addition, Iceland has determinedly embarked on a scheme to have all its cars and diesel-powered fishing fleet run on hydrogen fuel cells; a pilot program began in 2004 with auto manufacturer DaimlerChrysler being expanded and tests on prototype shipborne hydrogen-cells promises that this technology will power the fleet within decades. Iceland development with an annual budget of more has declared, the first nation to be entirely free of fossil fuels.

So there they are, and an inspiring lot they turn out to be — nations that care about the environment, have a vision of a sustainable future, are determined to expand renewable energy resources and put money behind the effort, and have comparatively efficient governmental machinery to achieve their goals.

What a contrast to the United States! — which has no comprehensive policy of any kind about energy or the environment, spends nothing to cut back on its massive greenhouse pollution, admits to a gasoline addiction but never plans to kick it, and has a government of such size and corruption — as 9/11, Iraq, Katrina, Medicare drug plan, and Social Security reform acutely prove — that it couldn't carry out a sensible policy even if it ever created one.

Size matters. All the governments of the world, as far as I know, are made up of human beings, and they have a limited and finite capacity to think, to plan, and to act. So it follows that their political and economic scales should be limited and finite. Much can be done at scales smaller than nine million people, particularly in nation-states where politics is serious and incorruptible, as we have seen from the five leading ESI countries.

It would seem to me that a state at a size of half a million or so — say, 620,000 — could do an awful lot to achieve energy self-sufficiency, if it were free to do so.