

Through the Looking Glass



A CAGW Special Report

Energy: The New Security Crisis

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November 15, 2001



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Introduction

Since September 11, adopting a comprehensive energy plan that addresses both supply and demand is more important than ever before. The unstable Middle East and the rolling blackouts of California's past two summers make it clear that America must have abundant, affordable, and reliable sources of energy. The president and Congress must pass an energy plan that lessens the nation's dependence on foreign oil and implements reasonable environmental safeguards that don't bust the federal budget.

There is no magic bullet, but there are several ingredients essential to the recipe for success. First, energy independence requires dependable, affordable, and environmentally sound resources. Second, funding for programs that will not provide near-term results should be set aside. Third, taxes and regulations that impede the development and distribution of energy must be modified or eliminated. Finally, Congress must recognize that the war against terrorism includes the battle to wean America from its dependence on foreign nations that, but for their oil reserves, might not be allies in this effort. President Bush's challenge to the world that you are either with us or with the terrorists could also apply to recalcitrant legislators and special interests that cling to the same tired old arguments against sound energy policy even after September 11.

Before any headway can be made with an energy plan, several myths about the current energy crisis and future solutions need to be addressed. Real problems with the quality of the air and water were brought to light in the early 1970s. Thirty years later, they have largely been remedied and, today, the environment is vastly improved and getting cleaner. Although environmental concerns are taken into consideration when determining public policy, some groups continue to bellyache and delay or prevent real reform.

From safe drilling in the Arctic National Wildlife Refuge to smart electricity deregulation, there are solutions that can resolve the energy crisis. All that is needed is the will of the president and Congress to pass a plan that ensures safe and affordable forms of energy, thus enhancing national security and economic growth.

Over the Top Against Oil in ANWR

America must find additional resources here at home to help wean the economy from dependence on foreign oil. According to the *Pittsburgh Post Gazette*, since 1973 when the first oil embargo was imposed on the United States and OPEC tripled prices, oil imports have jumped from 33 percent to 57 percent.¹ U.S. oil production today provides benefits to communities in need, makes maximum use of the environmental technology that true environmentalists fought for, and helps satisfy our nation's energy requirements. Our best source for additional oil is a little swath of land in the upper left hand corner of Alaska called the Arctic National Wildlife Refuge (ANWR).

ANWR is a 19.5 million-acre expanse of land, roughly the size of Maine, in a far corner of Alaska. ANWR is a forbidding, desolate place above the Arctic Circle, where winter temperatures average -4 degrees Fahrenheit and summer temperatures average only 41 degrees.

¹ Edgar Berkey, "The Best Defense: A Better Energy Policy," *Pittsburgh Post Gazette*, pg. E-4, Oct. 21, 2001.

It is not a place environmentalists or tourists visit, yet a small group of people — mostly Inupiat Eskimo — eke out a living there, helped by revenue from the oil fields.

In the tiny ANWR village of Kaktovik, on Barter Island in the Beaufort Sea, a full 78 percent of residents favor drilling.² Their county government, the North Slope Borough, receives revenue from oil fields and uses it to provide services for the villages such as sanitation, water, fuel, housing, police, fire and search and rescue, education, and transportation.³

Despite the strong support of these local Alaskans, the Alaska Wilderness League (AWL) has tried to block drilling of ANWR. Unhappy with the strong-arm tactics of AWL, the Kaktovik Inupiat Corporation, in conjunction with the village of Kaktovik, wrote a letter to Internal Revenue Service Commissioner Charles Rossotti challenging AWL's tax status. The Corporation is concerned that as a 501(c)3 nonprofit, AWL's "activities violate the clear intent of Congress...governing political and lobbying activities."⁴ For example, AWL has lobbied members of Congress to reject ANWR drilling, published congressional ratings, and funded congressional "junkets" to ANWR.⁵

Only a small portion of ANWR, called the North Slope, would be drilled. This 1.5 million-acre strip, roughly the size of Delaware, could have anywhere from 5.7 billion to 16 billion barrels of oil, according to a report issued by the United States Geological Survey in 1998.⁶ That report assumed the use of drilling technology now nearly a decade old. Drilling technology has progressed dramatically since then, both in terms of productivity and environmental protection.

The amount of oil in ANWR represents more than 300 times the amount of oil President Clinton released from the Strategic Petroleum Reserve in an attempt to boost the Gore campaign in the fall of 2000. Based on December 2000 figures, ANWR's oil would free the United States from approximately 54 years of future oil imports from Saddam Hussein and Iraq.⁷ Drilling in ANWR could produce as much as 10 percent of U.S. oil needs for 20 to 25 years, reducing our dependence on foreign oil and helping every American enjoy a more comfortable and prosperous life.⁸

Consumption of crude oil (mostly gasoline) and natural gas is expected to grow over the next few years. According to the Department of Energy's Energy Information Administration, total U.S. petroleum consumption is forecast to increase from 19.5 million barrels per day to 24–28 million barrels per day by 2020. Most new electricity-generation capacity planned for the next five years is expected to be natural gas-fired. New sources of oil and gas will be required to meet U.S. energy needs over the next century.⁹

To explore the natural wealth in ANWR and deliver it to American consumers while supporting local peoples, oil companies are proposing to install cutting-edge exploration and drilling

² Ben Spiess, "ANWR benefits outweigh doubts in Kaktovik," *Anchorage Daily News*, April 1, 2001, <http://www.adn.com/nation/story/0,2360,254004,00.html>

³ <http://www.kaktovik.com/>

⁴ "Letter to IRS Commissioner Charles Rossotti," Kaktovik Inupiat Corporation, Oct. 23, 2001.

⁵ *Idem*

⁶ Jeffery Bartholet with Adam Rogers and Michael Hsu, "Oil's Ground Zero: A trip to the Arctic National Wildlife Refuge is a confrontation with choices – to drill or preserve one of the last wild places. Inside the growing fight for Alaska's future," *Newsweek*, Aug. 18, 2001, p. 18.

⁷ *A National Report on America's Energy Crisis*, Secretary Spencer Abraham, March 19, 2001, <http://www.techcentralstation.com/TechCentralPlatforms.asp?FormMode=Internal&ID=22>

⁸ Margaret Kriz, "Showdown on the North Slope," *National Journal*, pp. 634-35, March 3, 2001.

⁹ *Murkowski: To Solve Crisis, We Need Access To Energy*, Press Release, April 3, 2001, http://energy.senate.gov/press/press_template.cfm?id=176005

technology that will cover about 2,000 acres of surface land — about the size of an airport — in ANWR. For example, they will install horizontal production wells, which are long sections of tubing that pass horizontally through thin layers of oil.¹⁰ Horizontal drilling technology has developed rapidly since the first such well was drilled in 1990. Today, 90 percent of the wells drilled in Prudhoe Bay, near ANWR, are horizontal.

To reduce the effects of oil exploration on the surface, oil explorers will build roads made only of ice. These roads will melt in the spring, leaving no trace after the oil producers go home. And, they will dispose of drilling mud and cuttings by injecting them back under the earth in disposal wells.¹¹

Environmentalists are also concerned that the drilling would upset the mating habits of the caribou. In fact, in the Prudhoe Bay area, where drilling is currently underway, the caribou herd grew more than nine-fold over the past 20 years to an estimated 28,000 last year. Caribou mating and oil exploration can and do coexist peacefully.¹²

Yet certain groups say that ANWR is “our greatest wildlife sanctuary, and drilling there would be like drilling in Yellowstone National Park or the Grand Canyon.” That would be true, of course, if Yellowstone and the Grand Canyon were desolate places too cold and forbidding for tourism.¹³ The latest “impediment” raised by opponents of ANWR drilling is potential violation of the obscure 1995 International Agreement for the Conservation of Polar Bears. With between 22,000 and 27,000 polar bears on the North Slope, the impact on their dens, protected under the 1995 treaty, is likely to be negligible.

The private sector is ready to make a commitment to preserving the natural beauty and the animals of ANWR when drilling. The energy bill passed by the House of Representatives in August 2001 includes the most stringent environmental protections ever required for domestic gas and oil production. If entrepreneurs can take a computer the size of a warehouse and fit it into the palm of a hand, it is possible to drill in ANWR and protect the environment. It is now up to the federal government to make a commitment to open up ANWR for drilling; in particular, for the Senate to follow the lead of the House.

If Congress wants to help win the war on terrorism, there are few proposals more worthy than opening ANWR. It is completely within our control, unlike the many uncertainties the nation faces in what promises to be a lengthy war.

Cuckoo to Stop Coal Power

Coal provides more than 50 percent of the nation’s electricity. The National Mining Association estimates that coal use nationally in 2001 will reach 1.1 billion tons and exports will add another 65.3 million tons to the overall demand for U.S. coal.¹⁴

Despite the abundance of natural resource, the Clinton Administration shut off huge swaths of federal land to coal mining and other energy-productive uses. The administration’s magnum

¹⁰ *Drilling Technology* page, anwr.org <http://www.anwr.org/techno/drilling.htm>

¹¹ *Arctic Technology* page, anwr.org <http://www.anwr.org/techno/techno1.htm>

¹² Secretary Spencer Abraham, March 19, 2001

¹³ <http://chicagotribune.com/business/printedition/chi-0108050004aug05.story?coll=chi-printbusiness-hed>

¹⁴ “Record Coal Year Forecasted for 2001,” *The Energy Report*, Jan. 29, 2001.

opus of shutdowns was the designation of a huge chunk of land in Utah as the Grand Staircase-Escalante National Monument in 1996.

This new monument contains the Kaiparowits coal field, which is the largest undeveloped coal deposit in the lower 48 United States, with more than 62 billion tons of low sulfur, high Btu coal. Its recoverable coal is estimated to exceed 11 billion tons and the potential for coal-bed methane has been estimated at 2.6 – 105 trillion cubic feet.¹⁵ The amount of recoverable coal in Grand Staircase-Escalante is equivalent to about 10 times the coal production in the entire United States in 2000.¹⁶ Making these resources available would lower the cost of energy for Americans and reduce our dependence on foreign energy sources.

The Grand Staircase Escalante shutdown took nearly 2 million acres out of productive use.¹⁷ It was the best known of the Clinton Administration's anti-energy moves. In early 2000, Clinton also established the Parashant National Monument in Northwestern Arizona on 1,014,000 acres of federal land.

As they took these lands out of productive use, the Clinton Administration spun all kinds of claims about their scientific and historical value. President Clinton's Grand Staircase Escalante designation should go down in the history of political doublespeak: "An abundance of packrat middens provides insight into the vegetation and climate of the past 25,000 years and furnishes context for studies of evolution and climate change."¹⁸ In other words, the former president thought that maybe rat holes could help prove that there is global warming. But the clear message was that he would forgo sensible long-term energy policy in favor of scoring political points with certain voters.

Though he did not reverse President Clinton's national monument designations, President George W. Bush took a sensible step by reassessing his campaign promise to regulate emissions of carbon dioxide. Large quantities of carbon dioxide result from energy production, and coal-fired power plants are the nation's largest emitters of carbon dioxide. President Bush had suggested on the campaign trail that he would seek to reduce carbon dioxide emissions, but he tempered this view upon seeing the severity of the energy crisis bearing down on us. Naturally, the opponents of energy production in the environmental movement howled like partisan hyenas when President Bush made this change.

Carbon dioxide is what humans breathe out all day, every day, and it is the basic raw material that plants use in photosynthesis to convert solar energy into food, fiber, and other forms of biomass. And, as the National Academy of Sciences made clear with its 2001 report on global warming, not enough is known to determine whether the earth is warming, whether human activity is causing any warming, and whether the effects of warmer weather would be particularly adverse.¹⁹

Even though coal use has increased by 80 percent since 1970, emissions have declined by 30 percent. This is because coal energy generators are using cleaner-burning coal and installing clean technologies like pollution scrubbers to reduce emissions of nitrogen oxides, sulfur oxides, and particulate matter.

¹⁵ <http://www.aapg.org/divisions/dpa/grandstaircase.html>

¹⁶ <http://www.eia.doe.gov/cneaf/coal/page/special/feature.html>

¹⁷ Carol Hardy Vincent, "National Monuments and the Antiquities Act," *Congressional Research Service*, April 17, 2000, <http://www.cnire.org/nle/pub-15.html>

¹⁸ <http://www.law.pitt.edu/fox/regre/regre04/GSESC%20proc.htm> ; <http://www.westerncounties.org/ppmonop.htm>

¹⁹ "The Climate Change Science: An Analysis of Some Key Questions," ed. National Academy Press, Washington, D.C., 2001.

The abundance of and demand for coal is another reason why our eyes should be pointed homeward when we consider energy solutions. America has many natural resources waiting to be tapped cleanly and safely – and coal is such an energy source.

No, Never, Not In My Back Yard to Nuclear

Of all energy sources, nuclear energy has perhaps the lowest impact on the environment, including water, land, habitat, species, and air resources. Nuclear power plants do not produce significant pollutants, dust or smoke, or “greenhouse” gases. True environmentalists, who want clean air and water and progress of all kinds, embrace nuclear power generation. But many other activist groups oppose both nuclear power and a plan to store used nuclear fuel at Yucca Mountain, Nevada.

It has been at least a generation since Jane Fonda trumped up the imagined dangers of nuclear power in *The China Syndrome*. Today, despite the scare tactics used by anti-nuclear activists, the benefits of nuclear power are becoming more and more apparent to sensible Americans.

Nuclear power supplies about 20 percent of the nation’s electricity. In 1999, nuclear-generated power accounted for more than 25 percent of the power generated in New York State. Nuclear generation brings nearly half of the power used in Connecticut and more than half of the power in New Jersey, New Hampshire, and Illinois. In Pennsylvania, more than 35 percent of the electricity is generated by nuclear technology, and in Vermont – where environmental issues are paramount – it is a whopping 85 percent.²⁰ The question nuclear power opponents should be asking is how this much energy can be replaced in a manner that will be environmentally sound and at a reasonable level of expense to the U.S. economy and national security.

Nuclear technology has benefits far beyond the light bulb. Low-level nuclear irradiation preserves food by killing parasites, insects, and bacteria, including listeria, salmonella and E. coli. It also retards non-microbial spoilage of certain foods, increasing their shelf life.²¹ Irradiation is also being used by the United States Postal Service to neutralize any potential anthrax spores in the mail.

Medicine also benefits from nuclear technology. More than 28,000 American doctors practice medical specialties that use radiation. Indeed, the use of radiation for medical diagnosis and treatment is so widespread that nearly 4,000 hospital-based nuclear medicine departments across the country perform more than 10 million procedures each year.²²

There are nearly 100 different nuclear medicine procedures available to virtually every medical specialty, from pediatrics to cardiology to psychiatry. Every major organ system can be imaged using nuclear medicine. This vital technology can identify abnormalities very early in the progression of a disease — long before problems are apparent with other diagnostic tests. Nuclear medicine also has valuable therapeutic applications such as treatment of hyperthyroidism, thyroid cancer, blood imbalances, and pain relief from certain types of bone cancer.²³

²⁰ http://www.nei.org/documents/1999_State_by_State_Electricity_Fuel_Shares.pdf

²¹ <http://www.nei.org/doc.asp?catnum=2&catid=106&UpFront=true>

²² <http://www.nei.org/doc.asp?catnum=3&catid=169>

²³ http://www.snm.org/nuclear/new_whats_nm_1.html

Probably the most misunderstood aspect of nuclear power is the storage of used nuclear fuel. New nuclear fuel is formed into hard ceramic pellets. These pellets are kept in fuel rods, metal tubes into which the pellets are inserted when they are manufactured. The rods are grouped into bundles called fuel assemblies, which are loaded into nuclear reactors.²⁴

Used nuclear fuel retains its hard pellet form. It does not glow green in the real world, even if it does in popular culture. It cannot explode and it is not even flammable. A used nuclear fuel pellet contains a lot of energy, however, which is released inside the reactor through fission — the splitting of uranium atoms in a chain reaction. Inside the nuclear plant, the heat energy produced boils water into steam, which drives a turbine generator to produce electricity.

All this energy contained in such a small amount of matter means that a lot of energy production creates a very small amount of waste. All of the nuclear power plants in the entire United States about 2,000 metric tons of used fuel annually. All the used fuel produced by the nuclear energy industry across the entire American continent in more than 40 years of operation would cover an area the size of a football field to a depth of only about five yards.²⁵

The location designated for storage of this used fuel is a barren stretch of desert hillside at Yucca Mountain in Nevada. Since 1982, consumers of nuclear-generated electricity have paid one tenth of one cent for every kilowatt-hour they have consumed. This fund now totals more than \$16 billion including interest.

In a December 1998 assessment, the Department of Energy (DOE) described how the natural features of Yucca Mountain would work in concert with the repository's engineered design to protect public health and safety for thousands of years into the future. Yucca Mountain is volcanic rock, or tuff, that was deposited around 13 million years ago. The area where used fuel would be stored is both deep within the mountain and high above the water table. DOE analyzed the likelihood of earthquakes in the area and found the risks from seismic activity to be low.²⁶

DOE's obligation to take the fuel is not in doubt. The U.S. Court of Appeals for the Federal Circuit ruled in 1997 that three utilities could maintain an action for breach of contract against the DOE for failing to dispose of the nuclear waste that had been produced at the utilities' nuclear power plants. The court made it clear that this was not a contract dispute that could be resolved under the terms of the agreement between DOE and the utilities; it was a complete breach of the contract itself and therefore could be pursued in court.²⁷

The court specifically rejected the government's contention that the failure to complete the nuclear waste repository by January 31, 1998, was covered under the avoidable delay clause of the contract between DOE and the utilities. For that clause to be effective, however, a specific type of delay had to occur, namely in the delivery, acceptance or transport of nuclear waste. That did not cover the failure to build the repository, only delays that involved individual contractors and which arose during the performance of the contract; that is, after DOE began to dispose of the nuclear waste.²⁸

²⁴ <http://www.nei.org/doc.asp?catnum=2&catid=62>

²⁵ <http://www.nei.org/doc.asp?catnum=3&catid=56>

²⁶ http://www.ymp.gov/documents/psse_a/pdf/execsumm.pdf

²⁷ Maine Yankee Atomic Electric Co., et. al., v. United States, 112 F.3d 1569 (Fed. Cir. 1997).

²⁸ Idem

The Court of Appeals was very clear that Yankee Atomic's claim against DOE was broader than the improper delays in performing DOE's contractual obligations. The court agreed with Yankee Atomic that the government had breached its contract. The Court also said that the breach involved all the utilities that had signed the contract.

This was not the first time the courts have ruled against DOE in this matter. In 1996, the U.S. Court of Appeals for the District of Columbia ruled that DOE must proceed with nuclear waste removal and storage.²⁹ The federal courts also found that the federal government is now liable for paying for the on-site storage at nuclear facilities across the country.³⁰ These decisions open DOE up to claims for breach of contract with every U.S. nuclear power company, leaving the government open to massive liability that will eventually fall upon the taxpayers. Those projected costs range from \$34 to \$56 billion, even as high as \$80 billion.³¹

Yet, contrary to all common sense, anti-nuclear activists have fought against the Yucca Mountain project every step of the way. Opposition rhetoric has included misinformation such as claims that the site is certain to leak radionuclides into the environment. In truth, ongoing studies by DOE and huge technological investments to guarantee safe storage will make sure that the Yucca Mountain site is perfectly safe for used fuel.

Another scare tactic to stop the Yucca Mountain depository has been the claim that used nuclear fuel will be transported unsafely from power plants to the site. Public Citizen's "Radioactive Roads and Rails"³² program sends activists across the country to terrorize local residents with stories of how the specially constructed storage containers will leap from trucks and trains, breaking open and spilling their contents like so many eggs or glass beakers. Of course, the transportation program, like the repository in Nevada, is being tested, re-tested, and tested again for safety and efficacy. Transportation of used nuclear fuel happens all the time and there has never been an accident that has released radiation harmful to anyone.

Nuclear energy is not the bogeyman that fringe groups claim. It is safe, clean, abundant, and cheap. The only threat of nuclear power is a future without it.

Wind, Solar, Synfuels and a Pile of Manure

Despite environmental activists' enthusiastic endorsements, alternative energy produces less than 2.5 percent of America's electricity needs. These sources cannot possibly meet our energy requirements for the foreseeable future. Take wind, for example. Even if there were enough wind to go around, wind energy would come at great cost. In addition, contrary to popular myth, wind energy is not environmentally friendly.

California leads the nation in the production of wind energy. Four major wind farms, employing more than 13,000 windmills, cover several thousand acres in the state and they produce 2.9 billion kilowatts per year. By contrast, a single coal-fired plant near Knoxville, Tennessee — on a fraction of the land — produces 10 billion kilowatts per year. Windmill blades are 58 feet long, produce a roar that can be heard for miles, and kill unsuspecting birds. People who drive

²⁹ Indiana Michigan Power Co. v. United States, 88 F.3d 1272 (D.C. Cir. 1996).

³⁰ Northern States Power Co. v. Department of Energy, 128 F.3d 754 (D.C. Cir. 1997).

³¹ Testimony of Thomas A. Schatz, President of Citizens Against Government Waste, Hearing before the Senate Energy and Natural Resources Committee, Sep. 28, 2000.

³² <http://www.citizen.org/cmep/RAGE/radwaste/radroadsnails/report2000.htm>

through the Altamont Pass east of San Francisco see an unparalleled eyesore and absorb some of the most obnoxious noise pollution.³³

In mid-1979, President Jimmy Carter gave a speech summarizing his outsized predictions for solar power. Carter's six-point energy plan included "the most massive peacetime commitment of funds and resources in our Nation's history to develop America's own alternative sources of fuel."³⁴ He set a goal of having 20 percent of the nation's energy come from solar power by the year 2000 and asked Congress to pass his "windfall profits tax" to fund this adventure. President Carter got his tax-supported energy wish when Congress passed the Crude Oil Windfall Profit Tax Act of 1980. Today, that law raises taxes on legitimate energy producers to subsidize production of uneconomic "synfuels." The cost to taxpayers — and viable energy solutions — is as much as \$1 billion per year.

President Carter's solar goal is nowhere in sight today, because the technology is not there. All "renewable" energy sources account for less than 2.5 percent of our energy production.³⁵ With plentiful untapped natural energy sources elsewhere, the need to replace them is not apparent.

But the uneconomic nature of solar power is just the tip of the iceberg. Late last year, the Internal Revenue Service, which runs the synfuels tax credit program, began looking into whether some of the companies collecting taxpayer dollars were doing much of anything to contribute to the nation's domestic fuel capacity. As reported by the *Charleston Sunday Gazette-Mail*, one company sprays diesel emulsions and gummy pine-tar mixtures over already marketable coal in order to collect federal subsidies. Another synfuels producer collecting taxpayer money refused to allow reporters to visit its factory.³⁶

This creates a new twist on the alchemy of olden times. Rather than magically turning lead into gold, companies that benefit from government synfuels subsidies may be magically turning coal into coal and pocketing the gold — millions of dollars in taxpayer funds — for their troubles. And, of course, this program kicks the legs out from under legitimate small energy producers who do not have a federally subsidized edge in the marketplace.

There are some uses for solar power, and the technology may soon create more, but we must not put the cart before the horse by shuttering existing energy sources. When solar energy is viable, consumers will flock to it in a way no government bureaucracy or environmental activist could ever mandate.

Another alternative fuel is biomass. The idea behind biomass is that useful amounts of energy can be produced by burning all kinds of things, from wood and wood waste, to peat wood, wood sludge, liquors, railroad ties, pitch, straw, tires, landfill gases, fish oils, and, yes, municipal solid waste.³⁷

Biomass is neither economically feasible nor environmentally sound. It only survives because of government subsidies, and it is much more costly than gas-fired electric production. Biomass-based energy production releases carbon dioxide, nitrogen oxide, and particulates into the air.

³³ <http://www.enterstageright.com/archive/articles/1000cleanenergy.htm>

³⁴ <http://www.tamu.edu/scom/pres/speeches/jccrisis.html>

³⁵ http://www.nei.org/documents/Nuclear_Energy_Data_Monthly_0107.pdf

³⁶ Paul J. Nyden, "Synfuels' Legitimacy at Heart of Probe," *Charleston Sunday Gazette-Mail*, Nov. 26, 2000, <http://sundaygazetteemail.com/news/News/200011265/>; *Small Coal Dock Operators Fired Up: "Ridiculous Tax Credits" for Synfuel Plants Hurting Family-Run Businesses*, by Paul J. Nyden, *Sunday Gazette-Mail*, Dec. 31, 2000, <http://sundaygazetteemail.com/news/Valley+&+State/2000123021/>

³⁷ <http://www.cato.org/pubs/pas/pa-280.html>

Such an energy source is not even “sustainable,” like some environmentalists believe. Wood is one of the most common fuels used in biomass energy generation, and it is one of the items environmental activists see as sacred.

The reality is that alternative energy cannot possibly begin to replace fossil fuels using current technology or any technology in the foreseeable future. It is foolish to abandon the use of fossil fuels in favor of whimsical, unproven energy experiments. When new and improved technology delivers more efficient and even cleaner sources of energy, Americans will not need to be convinced to use them because their benefits will be obvious. The government should save the billion dollars spent on alternative fuels for something truly meaningful, like the war on terrorism.

Taxing, Regulating, and Spending Our Way to Energy Failure

The free market has been the most efficient mechanism for finding more and more clean energy solutions — and it will continue to do so if national energy policies allow it.

Unfortunately, policies at the federal, state, and local levels stand in the way of energy progress. They add to the price we pay for energy by siphoning off taxes, regulating in ways that prevent energy markets from successfully meeting consumer demand, and doling out government pork that props up waste and inefficiency in the energy industry.

As an example, consider the gasoline market. Gasoline prices spiked in the spring of 2001. There were many contributors to that price hike.

First, federal and state taxes comprise the second largest component of the price of gas, smaller only than the cost of the crude oil from which the gasoline is made. Taxes made up about 28 percent of the price of gasoline in 2000: Federal excise taxes are 18.4 cents per gallon and state excise taxes average about 20 cents per gallon. Some states levy additional sales taxes, which are applied to the federal and state excise taxes, meaning that consumers at the pump are paying taxes on their taxes.³⁸

Second, in 1993, as part of the Omnibus Budget Reconciliation Act (OBRA), Congress approved a 4.3-cent-per-gallon tax on gasoline as part of the effort to eliminate the federal budget deficit. This was on top of the 2.5-cent-per-gallon tax instituted as part of OBRA 1990, bringing the total to 6.8 cents per gallon. In response to the skyrocketing price of gasoline in the spring of 2001, along with the elimination of the reason for the tax in the first place (the budget now being in balance), the House voted to repeal the 4.3-cent tax but the Senate rejected a similar amendment.

Third, adding to the tax burden are various regulations on how gas is formulated. Different states and regions of the country have adopted different requirements for how gas can be formulated. Some require gas to be oxygenated. Some require gas to be reformulated with ethanol or MTBE. And some require gas to be low-volatility, meaning it is slower to evaporate. The United States is not a single energy market, but a patchwork of small, boutique energy markets that have been Balkanized by regulation. The laws of supply and demand cannot work in the U.S. gasoline market because a gas shortage in one part of the country cannot be satisfied by gas refined in a different part of the country.

³⁸ http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/primer_on_gasoline_prices/html/petbro.html

Gasoline is not alone. Each type of energy has a confusing welter of taxes and regulations that drive up costs and lower availability. Part of the problem — often portrayed as part of the solution — are government subsidies and support for various segments of the energy business. This brand of corporate welfare is particularly pernicious because it props up parts of the energy industry that should go out of business and prevents the best energy solutions from rising to the top.

Federal energy subsidies take three principal forms: direct payments of taxpayer dollars to producers and consumers; “tax expenditures,” tax breaks doled out by politicians to their pet projects; and research and development expenditures, taxpayer money that is taken and awarded to favored corporations.

A 1999 report by the DOE determined that federal subsidies for different kinds of energy were \$4 billion annually. Direct expenditures like the Renewable Energy Production Incentive were \$4 million in fiscal 1999, far lower than the \$82 million spent in fiscal 1992. The exemption for ethanol from federal excise taxes exceeds \$1 billion yearly thanks to the ethanol industry and its savvy lobby. The two largest subsidies were the alternative fuels production tax credit and the percentage depletion allowance for the oil, gas, and coal industries, followed by tax deferrals on enhanced oil recovery.³⁹

The best energy solutions will not come from governments meddling with our energy markets and pushing one fuel over another, or pulling private business along with subsidies. The incentives are in place — namely the opportunity to earn profits — for the private sector to fund its own research and development, its own exploration and discovery, and its own advances in technology.

California: How to Ruin Deregulation

While other states have successfully deregulated their energy industries, California slapped the name “deregulation” on a very different policy of highly interventionist market “restructuring.” This foolish policy has nearly destroyed California’s energy industry and has adversely affected its economy.

Like Emperor Nero fiddling while Rome burned, California for years refused to develop new energy supplies while consistently increasing its energy demands. As Bowden Russell wrote in the *Palisades Times*, “California’s response to its burgeoning population and proliferation of energy hungry computers, faxes and cell phones? Nothing, zip, zero, nada on the supply side.”⁴⁰ For 10 years, while its population and the energy-hungry Internet grew, California did not add a single significant, new major electrical-power generating facility. From 1996 to 1999, electricity demand grew by 12 percent while supply grew by less than 2 percent, according to the California Utilities Commission.⁴¹

This policy failure by the state occurred because California’s stringent environmental regulations create an approval process under which it takes three to five years to bring new plants from

³⁹ <http://www.eia.doe.gov/oiaf/servicert/subsidy/index.html>

⁴⁰ <http://www.palisadestimes.com/Californiaenergy.html>

⁴¹ <http://reason.com/ml/ml010401.html>

conception to operation.⁴² The time to bring plants online in other Western states can be as short as one year.

California's regulators do not care if power plants get built. Their only objective is to make sure that complex siting and environmental rules are followed. Their mission is not to move the state forward by managing the trade off between environmental goals and cost-effective power for Californians; it is to stop progress.

An elite few in California decided years ago that they could have it both ways: they could use all the energy they wanted, but they could have draconian environmental laws that prevent energy production in the state. This has put them on the precipice where they still sit.

On top of California's decade-long foolishness with energy production came its now-famous so-called "deregulation" scheme. This "deregulation" was never deregulation at all. It was top-down, government-mandated "restructuring," which might better be called "destructioning."

Deregulation, California-style, had nothing to do with reducing the role of the politicians and bureaucrats in the energy business. It actually increased the role politicians, businesses, and consumer and environmental groups by allowing them to get together and re-jiggle California's energy market. It was a cacophony of incompetence.

In 1996, Assemblyman Steve Peace (D) organized all the relevant players — big industrial customers, utilities, environmental groups, and consumer groups — to get behind his electricity restructuring bill, which passed the legislature unanimously. California's politicians claimed the plan would provide consumers with more choice and lower prices. Big business figured its purchasing power would allow it to secure lower prices. Consumer and environmental groups got lots of restrictions on how the utilities could operate, including price controls — the exact opposite of what happens in a deregulated marketplace.

A little money greased the deal all around. The consumer energy producer groups got a guaranteed 10 percent rate cut — something California power consumers are more than paying for in higher rates today. Utilities, meanwhile, made that money up by getting to charge customers a "competitive transition charge." This was to help them recoup their "stranded costs" — or money lost to bad investments.

All this looks like an electricity-dollar shell game and, sure enough, there was a loser in the deal. Part of the "competitive transition charge" arrangement was that new competitors had to charge this fee to customers as well, handing the money over to the state. The upshot, of course, was that no new competitors could afford to enter the market, pay this extra fee, and provide energy at competitive rates. The restructuring scheme protected existing players from competition and prevented supply from meeting increasing demand. The losers were California's consumers and taxpayers.

There is more to this dramatic and failed experiment with political control over the market for electricity. The next step was the creation of a centralized marketplace called the California Power Exchange. The restructuring law mandated that all electricity must be bought and sold at the Power Exchange, and it prohibited buyers and sellers from agreeing to individual contracts. Everyone had to pay the same price offered on any given day, and it had to be the highest price available that day. The Reason Public Policy Institute showed by analogy how bad this idea is:

⁴² <http://www.rppi.org/030601.html>

Imagine if you were forbidden from buying groceries directly from a store, but had to tell a “grocery exchange” what you planned to purchase next week. In return, they came back to you with the prices you would pay. But the exchange also required that if you had unexpected guests or a change of appetite, and needed to increase your order on the day you picked up your groceries, you would have to pay the price of the most expensive brand on the shelf for any additional items you required. Who would ever choose to participate in such a market?⁴³

Nobody would.

On top of this heavy and backward regulation of power markets in California, the restructuring law gave bureaucrats and politicians the power to decide how energy companies could run their businesses. They would judge whether power companies could own generation facilities, whether they could upgrade transmission lines, whether they could perform maintenance, and so on. Worst of all, regulators would set the price the utilities could charge consumers.

With a natural political instinct to keep consumer groups happy, regulators were sure to set price caps low. In an unregulated market, when power prices rise, consumers save energy and new production comes on line, pushing prices down permanently. When price controls are implemented, demand increases unnaturally, and no one has an incentive to increase supply because there is no return on investment. This is exactly what set the stage for California’s problems.

Meanwhile, across the country, states are deregulating their energy markets with enormous success. Both taxpayers and consumers are reaping the rewards. The Center for the Advancement of Energy Markets⁴⁴ has issued a scorecard on how well states are doing in energy competition policies. The Center’s index measures the states’ progress in adopting policies that give consumers the ability to choose their electricity suppliers. This freedom leads to competition and low prices.

Pennsylvania, for example, ranks highest in the Center’s survey.⁴⁵ Unlike California, Pennsylvania has 39,000 megawatts of new generation capacity planned in the next five years and expects to remain a power exporter. The state is giving consumers choice in where they buy their electricity. It is educating consumers about their options and giving them incentives to shop around. Twenty-four percent of Pennsylvania’s electricity is bought from competitive suppliers and, this year, the 300,000 Pennsylvania households who have not selected an electricity provider will be assigned a “default” electricity provider other than the local utility.⁴⁶

Before deregulation in Pennsylvania, electric rates were 15 percent above the national average. Now, they are more than 4 percent below the national average, translating to savings of \$3 billion to consumers. The state government is also saving on energy costs.⁴⁷

Among the 500,000 consumers who have switched electricity providers, 20 percent have chosen some form of clean or renewable energy. Without the heavy hand of government, and without the pressure from special interests, consumers who value the environment are stepping up and doing something about it — paying a little bit more for energy that they believe is cleaner.

⁴³ <http://www.rppi.org/electricity/ebrief011001.html>

⁴⁴ http://www.caem.org/red_index_2001.htm

⁴⁵ <http://www.caem.org/>

⁴⁶ Del Jones, “States Take Varied Routes to Energy Deregulation,” *USA Today*, Feb. 1, 2001, p.3B.

⁴⁷ <http://www.caem.org/news/PA%20Governor%20Press%20Release.PDF>

New York earns top scores from the Center's survey, as well. Generation of electricity is completely deregulated in the state. Unlike California, where utilities have to buy through the bureaucratic Power Exchange, most utilities rely on long-term contracts for much of their electricity. This insulates them from fluctuations in spot markets. In the wake of California's troubles, there is a push on for more generation and, notably, New York is encouraging small-scale generation near customers, such as fuel cells that power individual office buildings.

In Maine, all customers became eligible to choose among electricity providers in 2000. Thirty percent of Maine's electricity is bought from competitive suppliers, the highest in the nation. Except in very hot weather, Maine has twice the generating capacity it needs, which means it is a net power exporter.⁴⁸

Maryland is another positive example. It gives 92 percent of its electricity users the option to choose among electricity suppliers. At the end of 2001, cooperatives will also be able to choose. Maryland even allows meter reading to be a competitive service provided by a third party. This is another way to squeeze out inefficiency and save consumers money. Recognizing California's failure to get the right energy-environment mix, Maryland plans to build an additional 41,000 megawatts of generating capacity.⁴⁹

Deregulation in each for these four states has moved their electricity markets in the same direction. They have increasingly allowed entrepreneurs to build energy plants based on the entrepreneurs' best estimates of what consumer demand will be. They require businesspeople to risk their own money, allowing them to keep the rewards if their risks pay off. Plus, they reduce the government-sponsored monopoly status that has dominated energy production and delivery in the past. Private-sector competition drives prices down for the benefit of consumers.

If California had truly deregulated its electricity markets, adjustments would have been made seamlessly over the last few years to head off the economic problems that still loom in that state. One of the obvious adjustments would have been to add new energy supplies. Instead, special interests and shortsighted politicians thwarted that logic.

Conclusion

After September 11, every issue takes on new meaning. While energy policy was a significant national security matter prior to that date, it now becomes a matter of paramount importance. Although the current situation in Afghanistan and the Middle East has not affected oil supplies, the nations that ship oil to the West could become unstable in the future. Should that occur, the shock to the U.S. economy on the brink of recession would be dramatic.

Other than the opposition of certain organizations and legislators, there is no sound reason not to pursue the goals set forward in this publication. Continued reluctance on the part of legislators and special interests to recognize the national security implications of failing to proceed with increased domestic energy production could be portrayed as unpatriotic.

There are myriad successful paths to pursue a sound energy policy that helps the United States become less dependent on foreign sources of energy and improve efficiency. Promoting

⁴⁸ Jones, *USA Today*, p. 3B.

⁴⁹ Idem.

domestic exploration and production; eliminating funds for programs that are not viable; and reducing taxes and regulation that impede development and distribution are essential to success. Until Congress fully addresses fundamental energy policy reform, the future of our nation will hang in the balance.