

ECONOMIC POLICY STUDIES / BRIEFING PAPER



# Hudson Institute

## Energy Policy: Lots of Heat, No Light

Irwin Stelzer

*May 2012*

Hudson Institute  
1015 15th Street, NW  
6th Floor  
Washington, DC 20005  
[www.hudson.org](http://www.hudson.org)

# **Energy Policy: Lots of Heat, No Light**

**IRWIN STELZER**

**Director, Economic Policy Studies**

**May 2012**



© Hudson Institute 2012

**America's oil consumption is about in line with our contribution to global GDP.**

**F**acts are the enemy of truth, warned Miguel de Cervantes in a notable book about the danger of windmills. That is probably the best summary of what is going on in the current election campaign when any candidate turns to energy policy. And think kindly of Cervantes' hero, "The Ingenious Gentleman Don Quixote de la Mancha." He did, after all, make clear his opposition to windmills, and was no more a reality denier than a candidate who promises \$2.50 per gallon gasoline within a year of moving into the White House.

Start with President Obama's facts. The United States consumes 20% of the world's oil. Undeniable. It possesses only 2% of the world's oil reserves. True, sort of. Therefore, he contends, we can never drill our way out of our problems. Depends how you define reserves.

Here is the truth that is obscured by the jumble of facts and near-facts offered by the President. America is indeed a large consumer of world oil, although our share of total global consumption is no greater than our contribution to total global GDP. And we do have about 2% of the world's proven oil reserves. But comparison of consumption with proven reserves is no indication of America's ultimate ability to produce the oil it will need to feed its cars and other oil-consuming machines for as far ahead as we can see. In addition to proven reserves there are vast quantities of oil lying under the surface of American lands and coastal waters waiting for the drill bit to establish their presence. The minimal nature of the reserve figure to which the President likes to refer is best demonstrated by a fact, a real genuine fact: in 2000 it was estimated that reserves that fit the Obama definition totaled some 20 billion barrels. In the

**The President misleads when he compares our consumption with only those reserves already classified as proved.**

next ten years we produced about 20 billion barrels. Did the wells run dry? Certainly not: at the end of the decade we had—get this—20 billion barrels of proved reserves. The oil industry proved up as many barrels of oil as we consumed. More precisely, some of our 134 billion barrels of undiscovered, technically recoverable prospective reserves were proved. It is ever thus, true since the first discovery of oil in the United States, after which doom sayers periodically warned that we are running out of oil, either to be delighted or disappointed (depending on their attitudes towards the use of oil and to the oil industry) that their predictions proved wrong.<sup>1</sup>

None of these estimates includes the possible two trillion barrels trapped in shale and sand, once thought beyond our reach at anything like prevailing prices, now becoming more accessible as oil hovers around \$100 per barrel and fracking technology makes such resources less costly to recover. One observer summarized the situation quite well, “The United States isn’t running out of oil, it is running out of access. There are many sources of crude oil in the U.S., but the vast majority of them are off limits to exploration and production. The exact size of this resource is unknown because companies are not allowed to do the necessary work to find out where the oil is and how much of it there is.”<sup>2</sup>

Unfortunately, the President’s use of semi-truths to justify his lavish subsidies of renewable sources of energy, many directed to companies in which important campaign contributors were involved, is matched by his opponents. “Drill baby, drill,” and America at long last will have energy independence. Well, sort of. If by “energy

**We cannot drill our way to energy independence. We can adopt policies that increase our energy security.**

independence” these politicians mean we will have no fear of developments in world oil markets they are being economical with the truth. Even if production in this country equaled our consumption, the price we pay for oil would be affected by what is going on in world markets. It is true that we would be more secure if we produced all of our own needs, but we would hardly be “independent”. Assume, for example, that our oil output equaled our oil consumption, but that jihadists took control of Saudi Arabia<sup>3</sup> and shut down its oil fields, or even merely seemed likely to. Would the price we pay for oil produced in Texas and Oklahoma be “independent” of that event? Surely not. Would we be more secure if restrictions on development of our resources were removed, and our pipeline connections to Canada enhanced? Surely yes. But whether that added security lurks in whatever energy policy Mitt Romney has in mind is difficult to tell: so far he has revealed only that he would “permit drilling wherever it can be done safely.”

Indeed, even in the absence of such a cataclysmic event we would hardly be independent, which would mean developing domestic resources to replace all imports, which provide about 45% of the crude oil we currently consume (down from a peak of 60% in 2005). There is almost no chance that we can find and produce oil here at anything like the cost at which such oil can be discovered and produced in Saudi Arabia, where lifting costs are estimated at \$5 per barrel. Unless the politicians who are holding out the prospect of energy independence are willing also to favor the introduction of significant tariffs on imported oil, we will continue to import cheaper foreign oil just as we import cheaper t-shirts and sneakers from China.

**The recent increase in oil production comes despite rather than because of the administration's energy policy.**

Turn now to the President's contention that his energy policy is "all of the above." Leave aside that any policy of "all of the above" represents a refusal to make choices, an assumption that resources are infinite so that we can do everything rather than make the trade-offs that are the stuff of intelligent policy-making. Ask the lesser question: is "all of the above" what the President's energy policy is all about?

Our discussion of nuclear power can be brief. The President does deserve credit for allowing a modest renaissance of that industry or, as nuclear advocate and Tennessee Senator Lamar Alexander puts it, an "awakening to the awareness of nuclear." Regulators have granted licenses for the construction of twin reactors in Georgia and in South Carolina, at a projected price tag of around \$30 billion. Given the lead time for construction, the history of cost over-runs and of regulators' tendency to change the rules during the construction period, it would be unwise to count on nuclear as a major source of energy, at least for now. In any event, it cannot be considered a substitute for petroleum until the economics of both nuclear and electric vehicles are established.

On to coal. It is clear that regulations promulgated by the Obama EPA effectively outlaw the construction of any new coal-fired generating stations, and might well cause the shutdown of some existing plants. Since America is the Saudi Arabia of coal, with hundreds of years of reserves, impeding the use of that resource hardly represents an "all of the above" policy. Of course, if gas prices remain at anything like current levels (see below), the market might do the EPA's dirty (or clean) work for it, and make coal an

uneconomic fuel, to the consternation of the mining industries and the railroads that rely heavily on the revenues from hauling coal, and the joy of electricity consumers, some of whom already are benefiting from rate reductions. Creative destruction creates both winners and losers.<sup>4</sup>

**We now have access to so much natural gas that its price has dropped, and it is more likely to be economic to use than renewables.**

Then there is oil. The President says that production and drilling have increased since he was inaugurated. That is a fact.<sup>5</sup> He takes credit for those increases. That ignores another fact. Production on federal lands has declined during his tenure, by 150,000 barrels per day (almost 8%).<sup>6</sup> All of the total increase has been on nonfederal lands, where output is up some 460,000 barrels per day (more than 13%). And the outlook for future development on federal lands is not bright. There have been major declines in leasing in the Rockies, the Gulf of Mexico, and Alaska, among other places. The American Petroleum Institute complains that although the industry spent \$2.6 billion in 2008 to obtain leases in Alaska's Chukchi Sea, "yet so far the administration has not allowed a single well to be drilled on any of these leases."

Still, the President more recently has taken steps to meet critics who claim he is hostile to fossil fuels, which he clearly is. The Department of Interior says it will allow new seismic surveys off the East Coast next year. But both the East and West Coasts remain closed to oil exploration, and the Department is refusing to review its decision in 2010 to cancel a planned sale of oil and gas leases off the coast of Virginia. It is not unfair, I think, to say that the relaxation of the ban on seismic surveys is a minimal response to political pressures to enhance supplies, without



**All fuels create environmental costs when they are produced.**

allowing oil companies actually to explore for and produce more oil offshore. Better than nothing, but not much.

Adding to doubts about the President's willingness to allow the expansion of domestic oil production is the insistence of his Environmental Protection Agency that it have a role in deciding whether, where and when to allow hydraulic fracturing, or fracking. Many state regulators are reluctant to formulate their own rules for fear that the EPA will supersede them following a Presidential directive to develop "sensible standards to protect air and water quality." Or so Rex Tillerson, CEO of Exxon, contends.<sup>7</sup>

Turn now to other sources of energy: natural gas, wind and solar. It is clear that the development of fracking, has made available such enormous supplies of natural gas that "it is fast becoming an energy phenomenon:"<sup>8</sup> its price has plummeted, trucking fleets are being converted from gasoline, refueling infrastructure is burgeoning, there is talk of a manufacturing renaissance<sup>9</sup> and of America becoming a major exporter of natural gas. Indeed, the low price of natural gas is probably doing as much or more than EPA regulations to drive coal from the electric generation market—natural gas meets the EPA's standards for fossil fuel use in electric power generation. And the abundance of the stuff is increasing doubts about the reasonableness of subsidizing wind and solar—both of which are inordinately expensive, both of which invite government not only to pick the winning technology but the winning companies (aka, crony capitalism). "Gas is wiping out every other technology in its path," David Crane, CEO of NRG Energy, told the *New York Times*; NRG canceled a wind park off Delaware because it could not find an investment partner.<sup>10</sup>



The bankruptcy of several solar-panel manufacturers, one because its panels do not function well in hot climates, others because it is difficult to compete with China's subsidized companies; the tendency of some wind machines to catch fire in high winds; the high cost of General Motors' Volt, an electric car that pays for itself in fuel savings in a mere 26 years; and the environmental impact of the transmission lines required to connect solar and wind-based generation to electric grids all suggest a re-examination of subsidy policies in our new age of fossil fuel abundance. Including, not least, any special tax treatments the oil and gas industries have carved out for themselves over the years.<sup>11</sup>

So how to make sense of the political heat that is being generated in the discussion of energy policy. Here's how:

- Don't believe that we are short of resources of oil, natural gas, or coal. God was kind to America when it came to doling out these resources.
- Don't believe that the production and use of any energy resource is free of environmental impact, or at least don't be certain that there is no environmental cost. Fossil fuel use produces pollutants, fracking is water intensive, some coal mining does not improve the landscape, wind machines create visual pollution and are not good news for birds, solar panels take up land and require high voltage transmission lines.
- Don't believe we can ever be energy independent. We will always be affected by global developments in energy markets. Our goal should be energy *security*, to be

obtained by efficient development of our own onshore and offshore resources, pipeline links to Canada's vast reserves of oil, working with Mexico to reverse the decline in its production, somehow forcing the price of oil to reflect the security costs associated with imports, and developing sensible policies for the use of the Strategic Petroleum Reserve.

- Don't believe that the President can do anything in the near term about the price of gasoline, but do believe that a long-term policy of developing our oil and, in the future, natural gas reserves can add to world supplies and bring some downward pressure on crude oil prices. No one, not even the most powerful man in the world, can repeal the law of supply and demand.
- Don't believe that the government is capable of picking the winners on which to lavish taxpayer funds, which it continues to do. But do believe that it will be difficult for opponents of such subsidies to make a coherent argument against subsidizing renewables until we put a tax on fossil fuels to reflect the environmental and security externalities associated with their production and use so that all fuels compete on a level playing field, both among themselves and with conservation investments. And make sure those taxes are in place of, rather than in addition to taxes on jobs, investment and risk-taking.

Most of all, believe that we now have a good grasp on the contours of a sensible energy policy in this new era of abundant national resources. Get the prices right, and stand aside.

## Notes:

1. For a review of such assertions and a discussion of the so-called peak oil theory see Daniel Yergin, *The Quest: Energy, Security, and the Remaking of the Modern World*. New York: Penguin Press, 2011.
2. Stephen Eule, Vice President for Climate and Technology, U.S. Chamber of Commerce Institute for the 21<sup>st</sup> Century, in *Real Clear Energy*, July 15, 2011.
3. The Kingdom is widely viewed as the swing producer, ready and able to increase output of crude if prices threaten to trigger a world recession. Ali Al-Nami, Saudi Arabia's oil minister, says that his country "has a responsibility to do what it can to mitigate prices ... [and] would like to see a lower price" but feels the oil market "remains balanced ... There is no lack of supply." Current prices, he says, are due to "geopolitical tensions." *Financial Times*, March 29, 2012. Given the large increase in the Kingdom's consumption of its oil, some are questioning whether the Saudis in fact have as much spare capacity to meet supply interruptions as they claim. Indeed, Iraq, now producing about 3 million barrels per day, may prove a more important source of oil should a shortage develop—the production increase a result of the successful overthrow of Saddam Hussein that critics of the Iraq war overlook. Also, the Saudi regime increasingly needs high oil prices to fund the welfare state that placates its restive subjects, so its assurances that it opposes high prices must be taken with a grain of salt: only last year Al-Nami said that prices between \$70 and \$80 per barrel are "fair," yet \$100 oil has not moved him to step up production.
4. Oklahoma Gas & Electric manger of generation planning, John Wendling, says the company's two most efficient gas plants "are pushing coal out of the way and the customer is benefiting." Electricity rates in Boston are coming down by 34% for industrial customers, and will soon be lowered for retail customers. *The Wall Street Journal*, April 11, 2012.
5. There are 1,296 rigs drilling for oil in the United States, four times the number when Obama took office according to oil services company Baker Hughes. Most of this increase is due to booms on private lands in such places as North Dakota.
6. Data compiled by American Petroleum Institute from Energy Information Agency and Office of Natural Resources.
7. *Wall Street Journal*, March 9, 2012.
8. Portland Analytics, "Oil Market Report: March 2012."

9. The petrochemical industry uses natural gas both as a fuel and as a raw material, and is expanding rapidly in the U.S. in response to the low prices now available.
10. Proponents of solar energy contend that it is economic for use on rooftops of residential and commercial structures, and when distributed in medium-sized arrays, and point out that in 2011 the photovoltaic capacity installed doubled the 2010 total. How much was due to tax credits, how much to subsidies from states such as New Jersey, how much to economic efficiency, whether the 50% decline in the cost of panels is likely to be repeated are all questions beyond the scope of this paper, which advocates getting prices right and letting the market decide.
11. Determination of just how “special” such treatments are is beyond the scope of this paper. John Watson, CEO of Chevron points out that his company paid a tax rate of 43% last year, but I have no knowledge of the factors producing that rate.
12. Politicians are torn between wanting to use the reserve to reverse “price spikes”, or only when supply interruptions require action—as if supply interruptions and prices are unrelated problems. And they have no rational policy to set the size of the reserve at a level appropriate to the risk of interruption from hostile sources. Austan Goolsbee, a professor of economics at the University of Chicago, estimates the cost of excessive reserves at \$20 billion. *The Wall Street Journal*, April 11, 2012.

## **Irwin Stelzer**

Irwin Stelzer is a Senior Fellow and Director of Hudson Institute's Economic Policy Studies Group. Prior to joining Hudson Institute in 1998, Stelzer was resident scholar and director of regulatory policy studies at the American Enterprise Institute. He also is the U.S. economic and political columnist for *The Sunday Times* (London), a contributing editor of *The Weekly Standard*, a member of the Advisory Board of The American Antitrust Institute and a member of the Visiting Committee of the Harris School of Public Policy Studies at the University of Chicago.

Stelzer founded National Economic Research Associates, Inc. (NERA) in 1961 and served as its president until a few years after its sale in 1983 to Marsh & McLennan. He also has served as a managing director of the investment banking firm of Rothschild Inc., a director of the Energy and Environmental Policy Center at Harvard University, and has been a member of the board of the Regulatory Policy Institute (Oxford) and an advisor to the U.S. Trade Representative.

As a consultant to several U.S. and United Kingdom industries with a variety of commercial and policy problems, Stelzer advises on market strategy, pricing and antitrust issues, and regulatory matters.

## **Hudson Institute**

Hudson Institute is a nonpartisan, independent policy research organization dedicated to innovative research and analysis that promotes global security, prosperity, and freedom.

Hudson Institute is a 501(c)(3) organization financed by tax-deductible contributions from private individuals, corporations, foundations, and by government grants.

**[www.hudson.org](http://www.hudson.org)**

*Forging ideas  
that promote  
security,  
prosperity,  
and freedom*

HUDSON  
INSTITUTE

[WWW.HUDSON.ORG](http://WWW.HUDSON.ORG)