Government's Energy-Policy Misfires

History's Lessons on Ineffective Energy Policy

Over the decades governments have attempted, for the most part in good faith, to craft policy and related laws that help the nation meet its energy needs. At least this was the declared intention. These policies have invariably failed. Why? A number of reasons come to mind:

- Politics and agendas, not producing energy, are what drive them.
- They are designed to accomplish things other than efficient, effective energy production.
- Many competing factions and mixed priorities vie for control.
- The government attempts to dictate what energy is "good" and what energy is "bad."
- The arrogant or naïve presumption that government direction or coercion mixed with money can actually make what the market deems unworkable suddenly work really well.
- Taxpayer dollars are "invested" in energy ideas the free market doesn't support.
- Government preferences, subsidies, and mandates don't work, and they waste resources and time.
- Treating energy producers as "the enemy" creates friction that slows collaboration and innovation and discourages private capital investment.
- Laden with overly burdensome regulations and procedures, they discourage economic activity.
- They have lacked long-term vision, been driven and captured by special interests, been poorly implemented and coordinated, and inconsistent.

Energy policies of the past have been well-documented failures. Industrial policy initiatives focused on heavy subsidies for alternative energy sources as a means of attaining energy independence have failed, wasted hundreds of billions of taxpayer dollars, distorted the energy market, and have been accompanied by regulations that stifle traditional energy development, and growth in one of our country's greatest economic engines.

Both Democratic and Republican administrations have failed to establish an effective energy policy.

What are the consequences of these policy failures?

- Fuel prices have not remained stable or low.
- We have not become energy independent.
- We have not made Middle East energy sources irrelevant to our economic needs.
- We have punished energy producers by erecting barriers making their task more difficult.
- We have discouraged energy production.
- We have stifled investment in the energy sector.

A national energy policy can't be built on these things. National energy policy, to succeed, should serve broad, legitimate objectives (like fostering energy abundance and energy security) without imposing undue economic burdens on the energy sector, without restricting energy production, and without misallocating taxpayer resources. This paper identifies and explains some of policies that haven't worked, why they haven't worked, and why these policy failures should be avoided in any national energy policy whose purpose is to *improve* the nation's energy future.

Sadly, most Americans don't really understand how destructive and counterproductive the actions of the U.S. government (and to a lesser degree state governments) have been regarding energy policy, nor do they understand and the consequences of those actions, including raising the price of gasoline and blocking America from energy independence. The American public has been led to believe that the government is a benign factor in the cost and availability of energy and that industry is the root of the any problem in the energy patch.

Government Subsidies and Loans, aka Investments, Handouts, Picking Energy Losers

Many in the U.S. believe ardently that we must have *increased* "national investment" in renewable fuels and smart-energy technologies. By national investment these advocates mean that the government must spend taxpayer dollars. They believe that these technologies will save us from fossil fuels, and that the private sector won't invest in them because they aren't profitable (when, in fact, it's because they aren't *feasible*). So the government must force the market to use these "alternatives" even if the market clearly doesn't find them feasible, practical, or cost effective. If these technologies were really so smart, private capital would be lining up to get in on that greatness (and profit). The private sector has demonstrated a remarkably successful energy production capability through history. The market knows what works, what the market wants, and how to deliver it.

Advocates of government-directed investment of taxpayer dollars in energy believe that government "officials" or "committees" are somehow able to foresee "the right" solutions and technologies and that these are superior to what the market finds feasible and valuable, and will work better and more economically; that they're better qualified than the private market when it comes to energy technology investing. They believe this in spite of countless government boondoggles and endless government waste on such "investments" over decades. It's difficult to grasp why after all the documented failures they continue to think this is necessary, useful or appropriate.

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"It is error alone which needs the support of government. Truth can stand by itself."

--Thomas Jefferson

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These same advocates also tend to treat America's largest energy companies as the enemy, loudly declaring that "reducing our dependence on fossil fuels is a national security priority" purportedly because global supply is rapidly diminishing and will soon be gone. But, we now understand that the U.S. is swimming fossil fuels, and that *not using those resources* poses a very real national security risk because it leaves us at the mercy of foreign energy suppliers. National security requires an *abundant and reliable* energy supply, no question about it. Most also agree that having a mix of energy sources strengthens our energy posture. But should the government decide what energy is useful or accessible, or should the market? Let's agree that the market is more qualified to make decisions about what works and what doesn't. Let's agree that the market and private sector are more able to solve problems (like those associated with fossil fuel use) through innovation than government is. Let's agree that the government may be able to make wise and appropriate use of public resources to encourage economic activity in the energy sector in certain limited ways without misallocating or wasting capital.

Wind, solar, battery technology and biofuels may offer real opportunities to bolster our economy and put America on the forefront of a "new" energy revolution, but they can't *replace* oil, gas and coal; and energy consumers should be free to choose the energy that works best for them, and the market should be permitted to produce the energy products that respond to market demand. Government subsidies to "preferred" energy providers (but not others) force uncompetitive goods into the market, disrupt the market's pricing mechanism and prevent buyers from understanding the true cost of an energy product. Subsidies and mandates artificially impose inefficiencies and costs, lead to higher prices, assume the market is incapable of prudent decision making, and are essentially a tax on the economy and the people.

Is government qualified to make these choices? The track record suggests it is not, and for good reason. When politicians and bureaucrats "investing" taxpayer resources make energy choice they make political decisions rather than well-founded economic decisions, which prevents the market from working; it causes a misallocation of resources. Government "investment" in technologies that are not practical, economical, or feasible, or wanted, requires substituting individual choice with government force. It falsely rewards enterprises that deliver less value and diverts capital and labor from other more productive uses.

More importantly, government isn't *equipped* to "invest." Investments are transactions in which the financial or other significant risk is borne by the party making the decision. Government investments are made with "other peoples' money" and the individuals making the investment decisions have no risk, nor the prudence normally accompanying decisions that involve risk. Because it's not their own money, when it's lost through poor decisions it's not *their* loss – someone else pays for their mistake (the taxpayer), they do not. They don't really suffer if their decisions lead to failure. When government "officials" make failing "investments" with taxpayer dollars they don't even lose their government jobs, nor do their supervisors. In fact their failures are rarely the focus of significant public or media attention. Because the decision maker suffers no consequence, there is no responsibility for a bad outcome, no accountability to the party that did lose money (the taxpayer), and no incentive to ensure a good outcome.

Instead, people who don't make the decision lose money. But, since individual taxpayers don't feel the loss from these failed "investments," they never rise up and insist on accountability for results deriving from the use of taxpayer money. The government won't stop receiving tax dollars even though they repeatedly waste tax dollars on losing "investments." No one is going to "cut them off." So government can afford to recklessly gamble with these resources, as anyone does when they have money to burn that's not their own. The flow of resources continues without regard to investment outcomes. This is why governments make lousy "investment" decisions. Because the government isn't accountable for its lousy investment outcomes, economic reality is ignored, no lessons are learned, mistakes are repeated; and all the while the spending spin nonetheless generates votes. They can afford to make failed "investments" with other peoples' money, and they do.

Divorcing investment decisions from accountability for the results guarantees a poor outcome. And we've had very poor outcomes. No surprises here.

The market, collectively, makes better economic choices, because survival depends on it (note, government need not make good decisions to survive). Market investment decisions have real consequences, suffered directly by the individual or company making the choice. If they make a bad

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"While the loan guarantee for Solyndra would prove beneficial for Redpoint, I can't imagine it's a good way for the government to use taxpayer money. Every administration seems to feel like it knows better than the private markets how to allocate capital, and I've just never seen that to be true."

- Brad Jones, advisor with Solyndra investor Redpoint Ventures, in an email to Lawrence Summers, then the chair of the White House's National Economic Council

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"Instead of handing out billions in loan guarantees to selected companies, we can do much more good by removing billions in unnecessary regulatory compliance costs."

- Ed Whitfield (R-KY), Chairman, House Energy and Commerce Subcommittee

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decision, the loss comes directly out of their pocket, or out of their investor's pockets. And they feel it, and they learn from it. They are accountable for the bad outcomes of their decisions. They have a direct and real incentive to make wise, successful choices, and to avoid repeating mistakes. Only the free, private marketplace is capable of making such decisions, because private market decision makers use their own money. Their success or failure depends on the quality of their economic decisions. They are accountable.

Government policy makers and bureaucrats are bad investors for other reasons. First, government isn't qualified to "invest" because it doesn't make investments for the purpose of yielding successful economic outcomes; it invests to gain or retain influence, control and votes, which are distinct motivating factors usually at cross purposes with sound economic investment decisions. Second, government decision makers are not typically producers, and have little or no on-the-ground experience in producing wealth. They are not wealth creators, but wealth takers. Without the knowledge or experience to create wealth it's unreasonable to assume that they are qualified to manage the disposition (investment) of wealth. Wealth creators can be trusted to deploy the wealth they've created wisely because they understand its value (they know what it took to create it and what it will mean if it's lost). Those who don't understand the wealth-creation process are uniquely unqualified to invest the wealth of others (taxpayers), because they don't understand what it took to create it or what its loss portends.

When politicians and bureaucrats guess about what energy works and what is good or bad, a bad outcome is likely; yet, this is how much of what passes for energy policy is done. Only those using other peoples' money can afford to "guess" – because the outcome of their "guess" doesn't matter (to them). Governments don't know how to analyze the prospects for success, aren't accountable for the results of their failures and bad decisions, and therefore aren't qualified to make such "investments." "Feeling" like a technology is a good bet (as president Obama has said of Solyndra), or reading a poll about such feelings, is not a rational basis for *energy* policy, though it may be a rational way to get votes.

Since government agencies have no inherent ability to make such "investments" wisely and effectively, commitments by politicians to "build" a clean-energy economy is a dangerous farce – the government can't short-circuit the wisdom of collective private (market) choices by "investing" tax dollars in things that haven't otherwise proven their value. Calling government spending an "investment" doesn't make it a real investment as that term is commonly understood. Consequently, governments are not equipped or qualified to make investments – they might get lucky occasionally, but their decision-making processes and incentives are structurally flawed.

It's no surprise that "green energy companies" propped up by the government either fail or disappoint. It's pretty simple. When you flood companies with millions in taxpayer cash for ideological reasons you incentivize irresponsible behavior, ensuring that it will occur. If taxpayers are forced to provide resources to subsidize companies that private investors choose not to invest in, what does this say about the likely success of the investment? If an energy technology's only source of capital is the taxpayers (who have no choice in the matter and can't opt out), your company doesn't hold much promise in the eyes of those who know better … i.e., seasoned investors who know how to analyze the prospects for success. These bad investments also foster other problems like securities fraud, consumer fraud and financial misrepresentation.

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"The Bank of Washington continues to help us."

- Solyndra CEO Chris Gronet, demonstrating Solyndra's brazen government-centric business strategy.

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So, it's unreasonable to expect government "investments" in energy to be successful in producing what they're proclaimed to – energy abundance, less reliance on oil, energy security, economic opportunity, etc. They do succeed, however, at *other* things, like empowering those in the government and growing government (the unacknowledged object of "investments"). Subsidy programs like those for solar and wind succeed at squandering taxpayer resources, enabling government officials to act recklessly (i.e., with insufficient information), and creating policy constituencies dependent on the government trough. For many of the companies feeding at the trough securing federal money is integral to their business model (and they will crumble without it). Those who can't sell a good in the free market use government's coercive force to manipulate their uncompetitive product into the market at taxpayer expense. Instead of giving consumers the best product at the best price, they (and the government) burden consumers with inferior or overpriced products and deny them the better use of those resources.

Sadly their success lies in utterly wasting the taxpayers' hard-earned money, and losing the opportunities otherwise possible were those same tax dollars spent on legitimate government functions. The programs also enable politicians to take credit for attempting to create jobs, even though instead of creating jobs with real productive utility (i.e., jobs that contribute to a productive enterprise that adds value to the economy by efficiently fulfilling a market demand) they actually *misallocate* labor and capital to *political* projects and away from their highest and best economic use (which is where the market would have allocated those jobs and that capital). This is good for the growth and power of government, and the businesses feeding at the government's trough, and nothing else.

Companies that truly innovate and create real economic value are the engine of growth, and they don't require millions in taxpayer funding. Unfortunately, more big government is inefficient and ineffective. When government plays a part, it brings the private sector along – all the way to its bankruptcy. It is widely recognized that governments are not good at picking energy winners. In fact, government has a distinguished history of picking losers. For far too long, politicians have directed energy development with political forces rather than market forces, and this has repeatedly failed. Taxpayers, and the nation's economic welfare, can't afford any more self-serving political outcomes. The evidence is in: governments are terrible investors, and history is filled with government investment disasters. It's time for government to admit that directing energy technology development is simply not in its wheelhouse.

One of President Obama's first acts was to throw $90 billion at green energy companies as part of the stimulus. The Energy Department says it distributed $90 billion of stimulus funds in "government

investments" and tax incentives to put "Americans back to work making our homes and businesses more energy efficient, increasing the use of clean and renewable electricity, cutting our dependence on oil, and modernizing the electric grid."[1] But this top-down, reckless approach to financing exotic technologies has wasted tens of billions of taxpayer dollars, enriched political cronies, and failed to create jobs. It was an utter failure. Green jobs cost millions of dollars each – evidence of big-scale policy incoherence. All politicians are addicted to energy subsidies, which always lead down the same failed path of wasteful spending. Subsidies can't be fixed, except by abolishing them.

There is growing evidence that taxpayer dollars have been squandered on numerous "green pork" projects. Evidence that something is seriously amiss is hearings and official inquiries on Capitol Hill and administration investigations. Energy Department Inspector General Gregory Friedman has initiated 100 investigations into projects that received the funding based on accusations of taxpayer money diverted for personal use, false information in grant and loan requests, conflicts of interest and inferior work quality. So far the inspector general's work has led to eight criminal prosecutions and he has recovered $2.3 million in misspent funding.[2] "The green initiative of the president is certainly the epitome of handouts," according to Rep. Cory Gardner (R –Colo.), Member of House Energy and Commerce Committee. Giving money away as subsidies does little more than foster cronyism.

In an effort to "support" green jobs, one part of government's fractured policy has been to issue loan guarantees to renewable energy producers. The spectacular financial failure of many of these firms raises the question of whether the policy itself is effective or sustainable, says Diana Furchtgott-Roth, a senior fellow with the Manhattan Institute. These failures well illustrate that the government is ill-equipped to distinguish between winning and losing investments.[3]

There have been a series of failures and scandals involving green energy companies that received large sums of money from the federal government. The Recovery Accountability and Transparency Board, which oversees stimulus spending by all agencies, said in May 2012 it had completed 80 reviews and investigations and uncovered serious problems in outlays by the Energy Department, which received one of the largest chunks of stimulus funding of any federal agency.[4]

Companies participating in the federal energy loan program or receiving state subsidies that have since filed for bankruptcy, include:

- Battery maker Ener1, (Indianapolis, Indiana), built compact lithium-ion-powered battery solutions for hybrid and electric cars, which received $118.5 million in federal loan guarantees — Bankrupt in January 2012.
- Solyndra, (Fremont, California), manufacturer of cylindrical panels of thin-film solar cells, which received $535 million in federal loan guarantees in 2009 and $25.1 million in CA tax credit — Bankrupt in August 2011.
- Abound Solar (Loveland, Colorado), received $70 million of up to $400 million in approved federal (DOE) loan guarantees, manufacturer of thin film photovoltaic modules — Bankrupt and abruptly shut down in July 2012.
- Energy storage company Beacon Power (Tyngsborough, Massachusetts), which designed and developed advanced products and services to support stable, reliable and efficient electricity grid operation, was awarded $43 million in federal loan guarantees, and another $29 million in state grants – Bankrupt in October 2011.

- Battery maker A123 Systems (Waltham, Mass.), filed for bankruptcy, despite a $249 million grant award in federal stimulus funding in 2009 and another pledge for $465 million in investments from a Chinese company[5] – Bankrupt in October 2012.
- Evergreen Solar, Inc. (Marlborough, Massachusetts), manufactured and installed solar panels, received $58 million in MA loan guarantees (an undisclosed portion sourced from federal ARRA block grant) — Bankrupt in August 2011 with $485.6 million in debt.
- SpectraWatt (Hopewell, New York), solar cell manufacturer, received $500,000 in federal loan guarantees in 2009 — Bankrupt in August 2011.
- Babcock and Brown: Received $178 million in federal grants in December 2009 (4 months after it went bust) – Bankrupt in early 2009
- Mountain Plaza, Inc. (Dandridge, Tennessee), designed and implemented "truck-stop electrification" technology, received $424,000 in federal grants through TN Department of Transportation in 2009 — Bankrupt in 2003 and again in June 2010.
- Solar Trust of America (parent company: Solar Millennium), received $2.1 billion loan guarantee in April 2011 – Bankrupt in April 2012.

Another list[6] of failures includes:

1. Energy Conversion Devices (Rochester Hills, Michigan/Auburn Hills, Michigan), manufacturer of flexible thin film photovoltaic (PV) technology and a producer of batteries and other renewable energy-related products.
2. Olsen's Crop Service and Olsens Mills Acquisition Co. (Berlin, Wisconsin), a private company producing ethanol.
3. Range Fuels (Soperton, Georgia), tried to develop a technology that converted biomass into ethanol without the use of enzymes.
4. Raser Technologies (Provo, Utah), geothermal power plants and technology licensing.
5. Thompson River Power, LLC (Wayzata, Minnesota), designed and developed advanced products and services to support stable, reliable and efficient electricity grid operation.

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"All of these subsidies make for poor public policy. Subsidies subvert the efficient functioning of the market, which is our only effective mechanism for matching supply with demand. Free trade of a given good is, as economics tells us, the only way to determine efficiently how much of that good is desirable at a given price. The idea that politicians could make such predictions is, as Nobel Prize-winning economist Friedrich Hayek observed, the fatal conceit of government."

- Kenneth P. Green, resident scholar at the American Enterprise Institute

(Source: Kenneth P. Green, "Subsidy-Powered Vehicles," The American, August 13, 2012.)

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Still other subsidized green-energy companies show clear signs of trouble. Among these are:[7]

- Amonix, Inc.: Received $5.9 million in federal tax credits in 2009 through ARRA —Laid off 2/3 of work force.
- First Solar: Received $3 billion in federal loan guarantees — Biggest S&P loser in 2011, CEO fired.
- Fisker Automotive: $529 million in federal loan guarantees — Multiple 2012 sales prediction downgrades for first car release, delivery and cash flow troubles, assembling cars in Finland.

- Johnson Controls**:** Received $299 million in federal grants in 2009 **—** Low demand caused cancellation of a new factory, operating at half capacity.
- Nevada Geothermal**:** Received $98.5 million in federal loan guarantees in 2009 **—**Defaulting on long-term debt obligations, 85% drop in stock value.
- Sun Power**:** Received $1.2 billion in federal loan guarantees **—** Debt exceeds assets**;** French oil company took over in last 2011.
- BrightSource Energy**:** $1.6 billion federal loan approved in April 2012 – loan obtained through political connections with the administration; absent the loan, Brightsource's solar power purchase would have fallen through.

For 40 years in the U.S. many have attempted to "push" renewable energy sources as an "alternative" to or "replacement" for fossil (carbon-based) energy, rather than as a supplement. Despite the push to move the country to "clean" energy, these renewables have not risen to the challenge of supplanting fossil fuels, and are actually stagnating. It's basic science. The renewables are a "low-density" form of energy. They don't provide the power or the reliability that modern civilization requires. Yet government officials "investing" tax dollars persist in throwing money at renewables expecting them to somehow become something they are not.

Government has already steered staggering amounts of tax dollars to wind and solar power with little to show for it, and these energy sources are dramatically more subsidized than other forms of electricity generation. A 2011 Department of Energy report—"Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2010"—identifies $37.16 billion in federal subsidies, including special tax breaks, loans and loan guarantees, research and development, home heating assistance, conservation programs.

The chart at right shows that the natural gas and oil industry received $654 million in government assistance for electricity production in 2010, while solar and wind received $1 and $5 billion, respectively. Between 2007 and 2010, total energy subsidies rose 108%, but solar's subsidies increased six-fold and wind's were up 10-fold.[8] Under the Obama administration, wind energy subsidies increased by 947%, solar subsidies increased 534%, and biomass subsidies increased an enormous 1,731%.[9]

Energy and the Taxpayer

Federal subsidies for electric power by source, fiscal 2010

	Total (in millions of $)	Dollars per megawatt hour
Oil and Gas	$654	$0.64
Hydropower	215	0.82
Coal	1,189	0.64
Nuclear	2,499	3.14
Solar	968	775.64
Wind	4,986	56.29

Sources: U.S. Department of Energy and Institute for Energy Reseaerch, 2011

What really stuns, though, is the staggering difference in dollars spent per megawatt hour of electric energy produced by each source. The Institute for Energy Research used the Energy Department data to calculate that per megawatt hour, natural gas, oil and coal received 64 cents, hydropower 82 cents, nuclear $3.14, wind $56.29 and solar $775.64. Translation: government subsidizes wind at $88 and solar at $1,212 for every dollar it gives to coal, oil and natural gas. And for this wind and solar combined to generate only 2.3% of U.S. electricity in 2010, and while renewables generated 10.3% of electric overall, 6.2% of that is hydro.[10] Moreover, despite the popular notion that big oil gets big tax incentives from the government, in 2009 fossil fuels were 78% of U.S. energy production (and paid $10 billion in taxes), but received only 12.6% of all energy related tax

incentives, while renewables were 11% (or less) of the energy produced (and were a net drain on the Treasury), yet received 77% of the tax subsidies, according to the Congressional Research Service.[11]

The return on government's "investment" in renewables is troubling to say the least and well illustrates the government's limitations in this regard. Government investments are, unfortunately, not about results, but about politics.

Green Energy Jobs Haven't Materialized – The government's "investment" in clean, renewable energy was hailed as a job-creation engine. Yet with all the bankruptcies and other performance problems among the subsidized green energy companies, it's clear that dramatic employment growth originating in this sector (as politicians promised) is not in the cards. Worse, the jobs that have been created are taxpayer financed, which means they are not self-sustaining or justified by virtue of the productivity (wealth) they generate. This means they really aren't worth creating in the first place, because they don't pay for themselves and can't survive when the government pulls out.

In stark contrast, jobs created in the private sector (oil, gas, and coal industries, for example) *are justified* by their productivity and do pay for themselves by producing more wealth than they consume. Subsidized jobs are even more expensive than they appear because the taxpayer dollars taken out of the private sector to subsidize green jobs reduce the resources available within the private sector to create jobs that actually do produce something valuable. Subsidized green jobs not only don't pay for themselves, they impose a significant opportunity cost on the private sector job creators. Subsidizing jobs forces the taxpayer to finance employment that the private sector doesn't deem capable of generating wealth.

While the employees with green jobs may be happy to work and receive a check (from the taxpayer), the broader economy is stifled because resources are not being used productively to create wealth in long-term enterprises. This lowers the economy's output potential and is thus counterproductive to net job creation. There is substantial evidence that subsidizing green jobs actually retards economic growth and kills other jobs. Unfortunately, policy makers' good intentions do not compensate for squandered wealth and squandered opportunities, nor do they compensate for creating jobs that will later disappear because they were unable to sustain themselves in the market without the government trough (for example, when the Production Tax Credit (PTC) on renewable energy expires at the end of 2012, wind energy companies will lay off thousands of employees – as many as 37,000 by some estimates – in North America, unless the subsidy scheme is renewed, which is estimated to cost $12.1 billion for one year).

Electric Car Subsidies Haven't Worked – Government subsidization of both the production (supply) and purchase (demand) of electric vehicles has also failed to foster the development of an electric car consumers can afford. Federal and state subsidies to promote sales of electric or partially electric vehicles have flourished as have a vast array of state incentives and subsidies for advanced and unconventionally-fueled vehicles. Despite all the subsidy and tax credit resources devoted to this 100-plus-year pursuit, electric vehicles remain unable to compete; sales have faltered for the over-hyped and highly-subsidized Chevy Volt, requiring GM to shutter production for weeks at a time.

Bottom line: spending tax dollars to employ people to produce things no one wants to buy is a ridiculously expensive economic lie. Financing the creation of jobs in green-energy enterprises whose products are not commercially viable illustrates the harsh folly of government attempts to direct the industrial economy by playing venture capitalist with taxpayer money.

Ethanol and other Mandates and Subsidies

Mandating that particular energy be used creates grave market distortions. Ethanol, the darling of government "policy" has been plagued with problems, as most well-intentioned government mandates are. Wind tax credits and ethanol subsidies are pure industrial policy, where government chooses outcomes in defiance of clear market signals rejecting what the government dictates.

As government increasingly resorts to mandates that certain energy types be used at certain levels by certain dates, these devices deprive individuals, institutions, governments, companies, and leaders of the discretion needed to make wise and effective decisions about their energy consumption or production. Any mandate imposed by government on the energy market limits choices, reduces efficiency, and increases production costs. Mandates replace individual market judgments with inflexible code. Guidelines, regulations and compliance requirements on energy use inhibit problem-solving processes and innovation by allowing leaders and energy producers to insulate themselves from legal and financial liability by checking off boxes instead of properly responding to market and other realities. As laws, mandates dramatically alter and limit the decision-making processes of energy consumers and producers. Effective, responsive market judgment can't be written into a code, yet lawmakers persist in thinking that mandates are a remedy, rather than forced interference.

What is the effect of such mandates? Government determines what energy production methods will be, rather than allowing producers to meet market demand for energy by pursuing energy-source-and-production options that deliver the *best value*. Ethanol is not a necessary fuel and offers no legitimate energy related advantages today, yet its mandate inflicts numerous very real adverse consequences, some of which are detailed below to illustrate just how damaging and wasteful government regulations can be. Some basic facts about ethanol include:

Ethanol makes up less than 1% of world-wide transportation fuel, and is produced by a minor industry that adds little if any value to the economy. The industry can't succeed without a mandate forcing consumers to buy its product every time they fill up the tank.[12] Ethanol makes motor fuel less, not more, efficient.

The food-to-fuel mandate (the Renewable Fuels Standard (RFS)) requires 13.2 billion gallons of ethanol to be blended into U.S. gasoline in 2012, nearly 14 billion in 2013, and 36 billion gallons by

The Ethanol Mandate is Worse than 2012's Drought

The corn market, which already faces the whims of Mother Nature, is also being victimized by the whims of Washington.

-- C. LARRY POPE, ***President and CEO of Smithfield Foods, Inc.***

2022. These quotas are fulfilled almost entirely by corn ethanol. The mandate causes corn shortages that drive up food and related commodity prices worldwide. Today, for the first time ever, more corn is devoted to making the fuel than to all U.S. livestock.[13]

A study conducted by PricewaterhouseCoopers for the National Council of Chain Restaurants estimates the impact of the RFS on the chain restaurant industry, and finds that if the RFS in 2015 increases annual ethanol consumption by 6 billion gallons, quick-service restaurant food costs would increase by $2.5 billion (10 percent of major food commodity spending) and full-service restaurants by $691 million (8.9 percent). A typical quick-service restaurant's annual food costs would increase by $18,190 ($17,195 for full service restaurants).[14] Obviously, these increases will be passed to consumers.

The ethanol industry uses the government's fist to secure subsidies for ethanol's production via refundable tax credits, to mandate that fuel blenders use their product, and to exact tariffs on more efficient sugar-based Brazilian ethanol. These policies have distorted the corn market to such a degree that 44% of all U.S. corn is diverted to motor fuel blends.[15] That U.S. corn is equal to 15% of corn production worldwide, and the country is *forced* to burn it in internal combustion engines that could run on better, less expensive fuel.[16]

World leaders fear that the U.S. mandate causes food price shocks and price volatility and shortages. Federal ethanol policy has increased and destabilized corn, soybean and wheat prices to the detriment of food and fuel producers and consumers. The ethanol mandate, despite causing other prices to rise and creating shortages, has not led to any correlative reduction in prices at the gas pump.[17]

Farmers who depend on corn as animal feed can no longer profitably raise livestock and poultry. Increasing feed prices will drive many dairy farmers into bankruptcy.[18]

The Senate Biofuels Investment and Renewable Fuels Standard Market Congressional Study Group concluded that because of the RFS:[19]

- Ethanol added $14.5 billion, or 10 cents a gallon, to motorists' fuel costs in 2011, because its energy cost is higher than gasoline and because of its negative effect on fuel mileage.

- Increased ethanol production since 2007 has had no effect on gasoline production or oil imports, contrary to supporters' claims.

Before 2005, corn was one of the U.S.' biggest exports and U.S. corn growers dominated world market share in corn and corn exports, but growers have since witnessed a precipitous loss of that market share, primarily because of the government's ethanol mandate. Japan, the biggest buyer of U.S. corn cut its imports from 2.702 million metric tons in 2011 to 1.968 million metric tons in 2012. In 2005 the U.S. controlled 60% of the global market, but in 2012 sells only 40% of the corn on the international market, with corn exports falling from 2.4 billion bushels in 2007-08 to 1.1 billion bushels in 2011-12, according to Agriculture Department reports.[20]

The diversion of U.S. corn from food to ethanol has caused its price to rise, which makes the U.S. corn product unaffordable for many countries, and leaves a market void that is now being happily filled low-cost producers like Brazil and Argentina – who will likely permanently dominate the export market for corn in the future as a result of the U.S. government's supposedly eco-friendly fuel mandates. No longer will U.S. corn be used to bring in hard currency from abroad.[21]

Because of the hydrocarbon energy resource bounty we now know is present in the United States, the *need* for ethanol is a dubious proposition at best, yet policy *mandating* ethanol persists even though it causes far more harm than good. Ethanol mandates create no essential advantage in meeting U.S. energy needs, except for those who produce ethanol – who, sadly, have become a large, dependent, and powerful lobby themselves. Ethanol mandates are a good example of "lose-lose" government "policy."

The EPA has clearly indicated that it will not amend or modify the ethanol mandate (RFS), demonstrating that politics (buying Farm Belt electoral votes) once again trumps logic or economics. Feeding the world is less important than feeding the ethanol lobby.[22] Rather than burning over 40% of the U.S. corn crop (even in the face of 2012's global food shortage), what the U.S. needs is policy and regulations that permit and encourage the use of energy resources in the ground. By seizing the new energy reality and *using* those abundant resources (rather than acting as though they don't exist).

Wind Energy Subsidies

The wind energy industry is dependent on government (taxpayer) subsidies, and hasn't stood on its own in the public energy marketplace. As such, its long-term reliability is questionable. After all the money taxpayers have given the industry through generous tax breaks for 20 years, wind still doesn't stand on its own, is not reliable and is not affordable. As a public "investment," it hasn't succeeded as an effective use of public funds, though in many particular private applications wind energy can succeed economically.

While the production tax credit (PTC) for wind (which is 50 to 70 percent of the wholesale price of electricity) is set to expire at the end of 2012, it is a phased-out expiration under which any turbine built before PTC expiration remains eligible for benefits for *10 years* after the unit was constructed. Wind energy producers also will continue to receive the additional de facto subsidy created by state laws that force consumers to buy wind-produced electricity regardless of cost.

Despite the direct-subsidy 10-year phase out, and state mandates, and billions in subsidies to the industry thus far, wind producers remain reliant (and are now hooked) on taxpayer support; they seek an extension of the PTC (at a cost of another $12.18 billion from 2013 to 2022 to save an alleged 37,000 jobs at $329,000 per job). The dependency, once created, is nearly impossible to end. Government creation of industrial dependencies does not advance rational national energy policy objectives.

Beyond their explicit cost, targeted incentives like the wind PTC are also unwise because they impose an overlooked opportunity cost. If a wind turbine manufacturer is able to retain 100 additional workers because it receives a tax credit, the labor of those 100 workers, and the capital to pay them, are diverted from more efficient, productive uses – which renders wind incentives a drag on the economy.[23]

The industry has had decades to demonstrate its capability and emerge independent, and shouldn't need the government's support anymore. Businesses that can't survive without 50% of their costs covered by the taxpayer aren't contributing to the energy economy, but are a drain on it. And with wind representing such a small percentage of total U.S. energy generation (it provides less than 3% of U.S. power, but receives among the highest levels of federal assistance), the taxpayers are not getting

enough of a return on investment to render these subsidies an effective or warranted use of public money.

On the ground in small communities with public utilities that have implemented wind-energy projects, significant, budget-busting losses are very common every year, even after subsidies. Mechanical problems and major repairs to wind turbines are very common and extremely expensive. Wind turbines break down and are typically out of commission more than 20 percent of the time, extended warranties are not available, and down times can be lengthy. The cost of replacing a turbine gearbox is estimated at $600,000. Customers of municipal utilities using wind pay more for electricity than average customers. Many of these publicly owned wind energy projects want to stay in wind energy because it's politically fashionable, but they never made *economic* sense, and they're now looking for ways to get out from underneath the crushing expenses they didn't foresee.[24]

Wind energy is still not viable in most public-utility applications and government should leave finding solutions and wind's true potential to the private sector, rather than permitting wind companies to continuously lobby Congress for special favors, like mandates and subsidies, that never yield results. As opposed to public power-generation applications where wind power is fed into the grid at great expense and the public is forced to buy it at high prices, the *private sector* is in fact where wind turbines have been deployed in economically sensible ways. Large industrial users have successfully constructed wind farms for specific energy applications (like creating the power to run a refinery). These "purpose-specific" commercial uses where the power generated is used on site have proven to be very productive – not surprising since they've spent *their own money* to build the farm and generate the energy.[25] But in these cases, the economics of the energy source for that particular application have been carefully calculated to yield a lower overall energy cost for the user than buying power off the grid from a public utility. This is how "alternative" energy sources can best be used – by private decision makers calculating a specific economic outcome that works for them and that they alone are accountable for. Allow private energy consumers to decide what power source is best for their particular application and circumstances. Allow alternative energy producers to seek out the most sensible market niches for their product, rather than forcing every energy consumer to buy every energy source.

The existence of policies and mandates that force Americans to buy products that don't make sense, are expensive, and cause more problems than they solve, is wrongheaded and demonstrates the appropriateness of a national energy policy focused on maximizing the utility of *all* available energy resources, especially high-utility hydrocarbons. It is policies like the ethanol mandate and wind tax credits, which take on a life of their own divorced from reality, that a national policy with a coherent mission could set on a better path.

★★★★★★★★★★

The real cost of these projects is not only the utility losses and the price of the subsidies. The unseen and unaccounted-for cost is that politically driven green-energy incentives cause utilities and other producers to make investments that are not in reality economically viable and to forgo more productive investments — including more productive clean-energy investments. Once the incentives end and market forces reassert themselves — which they always do in the end — the whole house of cards comes tumbling down. Capital that could have been invested in developing fruitful wind and solar applications for industrial or agricultural users instead has been diverted into municipal utilities, users for whom such products have not shown themselves to be very efficient.

- Kevin D. Williamson, correspondent for National Review.

★★★★★★★★★★

Government's Costly and Destructive Regulatory Posture

At the same time government has subsidized dozens of energy companies with little commercial potential, but lots of political influence and connections, it has also gone on a historically unprecedented regulatory binge targeting traditional carbon-based energy, especially coal. Because of new breakthroughs in oil and gas development, the United States has a previously unimaginable wealth of energy resources available, which presents a dramatic opportunity for jobs, affordable energy, enhanced energy security, and economic growth. Yet government regulatory posture poses a threat to realizing the affordable energy abundance now within the nation's grasp.

★★★★★★★★★★

"The federal government has for four years attacked any kind of energy that works. Instead of promoting coal, which is 'affordable and reliable,' the administration has favored solar and wind power, which are 'unaffordable and unreliable.'"

- Marita Noon, energymakesamericagreat.org

★★★★★★★★★★

Everyone agrees that government regulation is necessary and appropriate to provide legitimate safeguards that minimize the risks associated with industrial activity like energy exploration and production. Regulation should support responsible and safe energy production without imposing undue burdens on producers that raise costs or discourage or restrict production.

But regulatory policy too frequently goes far beyond ensuring safe and responsible production. In many instances regulations are downright hostile toward energy producers in coal, natural gas, and oil, and clearly designed to *restrict* production – rather than ensure safe, responsible energy abundance. These energy industries support appropriate regulatory oversight, but not overly burdensome, unnecessary regulations that stifle economic development, raise costs for energy consumers, hurt the industry, discourage investment in the energy sector, create unemployment, and slow the nation's economic engine.

While heavily encumbering fossil-energy producers or the use of their products, government simultaneously showers bankrupt "alternative" energy suppliers with billions of dollars that yield little useful energy, and pays little if any regulatory attention to the safety and environmental risks of "green" energy technologies. This disparity in regulatory burdens (activity) from one energy sector to another is an additional way government picks winners and losers. Rewarding winners with less regulation is the equivalent of a subsidy since it reduces the comparative cost of doing business. As Founder James Madison said in his 1792 Essay on Property, "A just security to property is not afforded by that government, under which unequal taxes oppress one species of property and reward another species." The same is true of unbalanced government regulations favoring or burdening some and not others.

Despite an unhelpful, hostile regulatory and policy environment in the last four years (and longer), the private energy sector and private landowners have worked very hard to seize the opportunities of "unconventional" oil and natural gas (that produced through fracking and horizontal drilling). In 2011 U.S. crude output rose to its highest level since 1998 and natural gas production hit a record high despite regulations slowing them down in every quarter. Much more could have been produced if regulatory policy had been supportive rather than stifling. The U.S. has also become a net exporter of petroleum products for the first time in 49 years, and U.S. companies are planning to export natural gas

to Europe and Asia. And as these very positive economic activities increase, the government's regulatory institutions are poised to do more regulating – i.e., stifling, complicating, delaying, and increasing the cost of producing and selling energy.

Energy policies in the U.S. have failed generally to give the country's energy industries direction, stability, predictability, and streamlined regulatory processes, which they need desperately to produce energy affordably and abundantly. They need these things for investment in the sector to continue and increase. The slow economic recovery and unstable economy are part of the reason why energy production hasn't taken off, and this is at least partly due to Washington's failure to provide policies and regulations that ensure certainty and predictability in the energy sector.

★★★★★★★★★★

Regulation is a dead hand on the economy. A yoke too tight, a burden much too heavy. Though sometimes well-intended, regulation is a millstone dragging the economy into a deep, murky abyss.

- Investor's Business Daily

★★★★★★★★★★

The burden of regulations is quite serious, though often overlooked. When central planners' regulations are preferred over the free and voluntary choices of market participants, economies and industries stall. If the objective of national energy policy is to increase energy production, more regulations on the energy sector will not advance the objective. Eliminating and streamlining existing regulations, however, will serve the objective. If the objective of energy policy is increasing government *control* of the energy sector, well, then that's where more regulation works. Unfortunately, placing *more* control of energy in the hands of government bureaucrats will not lead to more abundant energy.

Small businesses in the U.S., which are the economy's engine of innovation and growth, feel that they're under regulatory siege. A December 2011 survey reveals that "regulations and red tape" is the single biggest problem for 19% of small businesses, a 15% increase from the previous year. Only "poor sales" was a bigger problem to survey respondents.[26]

Regulations generally pose a fundamental adversity for economic activity. In the energy sector, regulation is highly favored by well-organized groups who bring much pressure to bear on policy makers. Because fear of environmental harm is a potent emotional trigger, and many are convinced through decades of persistent misinformation that profit-hungry energy producers are willing to callously risk the environment, government regulation is expected and few object when regulators swarm in and start telling energy producers what to do. But the assumption that all regulatory conduct is legitimate, helpful, or good is flawed. Regulations are often ridiculously burdensome without any measurable, or real, corresponding benefit.

Some federal regulators seem intent on minimizing fossil-energy production and raising costs for producers, whether or not these things deliver any benefit to the environment. Administrative agencies administering or creating regulations often have their own bureaucratic incentives, which usually have little to do with the stated objective of a particular regulation or policy. Many regulations are surely not designed to encourage production or make it easier, but to strengthen the hand of government. The costs of government regulation are often much higher than the benefits, especially since regulations so frequently do not even attain their intended (promised) benefit—the cure is often worse than the disease. More government spending or regulation often fails to deliver better outcomes. And government programs always have a point of diminishing returns, which is usually completely ignored.

The EPA's Overreach is Bad Policy

The EPA is today's glaring illustration of "regulator gone wild." The EPA responded to Congress' failure to pass cap-and-trade legislation intended to limit greenhouse gas emissions by engaging its own emission-limiting agenda *without* Congress' approval. These EPA moves (tactics) are, according to Time magazine, the "most far-reaching environmental regulatory scheme in American history." That today's EPA regulators have been punishing U.S. business in violation of the law and beyond what Congress intended is evidenced by the fact that federal courts have on at least six separate occasions since 2009 struck down EPA's legally flawed rules or its misguided disapprovals of state actions. The burdens and damages created by the EPA are so onerous they've prompted many lawsuits by both states and private enterprises challenging EPA's power under the Clean Air Act.

In August 2011, the EPA imposed a cap-and-trade-style program to expand limits on sulfur dioxide and nitrogen oxide emissions from coal-fired power plants in 28 "upwind" states, and claimed it had unlimited authority under the Clean Air Act to cap cross-state emissions. The EPA admitted the rule would cost the private sector $2.7 billion and force many coal-fired power plants to shut down.[27] Because of this one illegal EPA action regarding cross-state air pollution, for example, the flawed rule would have hit coal-fired electric plants in Texas and elsewhere particularly hard. Luminant's coal-powered energy production at Texas-based plants would have been forced to take 1,300 megawatts of power offline, and fire 500 workers. Implementation of the rule would have forced the cost of electricity up dramatically in the affected areas, causing more businesses to shutter and countless thousands of lost jobs. Fortunately the U.S. Court of Appeals for the D.C. Circuit struck down the misguided EPA rule.[28]

EPA Administrator Lisa Jackson, Associated Press

Coal is now in decline for the first time, with production falling 6.5% since 2008, according to the U.S. Energy Information Administration (EIA). While partly caused by the rapid emergence of cheap natural gas, the major reason is the EPA's surging air and water rules, such as its 2011 $9.6 billion rule for trace mercury emissions, which critics have labeled both unrealistic and pointless. Worse, again primarily because of EPA-imposed costs and regulations, the EIA conservatively estimates that 8.5% of the coal-fired fleet will retire by 2016, and 17% by 2020. A record-high 57 coal-fired generators and 9 gigawatts of electrical capacity will shut down in 2012. In 2015, nearly 10 gigawatts of capacity from 61 coal-fired generators will be retired.[29] While coal was 48% of U.S. net electric generation in 2009, it has since fallen to 32%, according to preliminary EIA data for 2012, and many fear that this sharp drop off (one of the fastest energy transitions in U.S. history) portends blackouts and other reliability issues as plants with many useful years remaining are prematurely shuttered.[30]

The EPA's regulatory posture is expected to wipe out 1.4 million jobs by 2020 and cause electric rates to jump 23% in states dependent on coal-fired plants.[31] Making electricity prices "necessarily skyrocket" is not desirable by any measure and is clear evidence of an obtuse failure in federal energy policy.

The EPA's overreach in recent years raises a key policy question, even beyond the issue of authority in a democratic republic: What does it say about the appropriateness of the agency's actions that numerous

industries and states are suing it, and federal courts are smacking down its rule-making overreach? It suggests that the EPA is causing harm, not good, and that EPA's rulemaking isn't working for the benefit of those it presumes to regulate. It suggests that the EPA is trampling on long-understood property-rights concepts, isn't working as steward of the environment, but is instead on a mission to punish, or eliminate, industry. It says the EPA doesn't recognize that its job as a U.S. government agency is to act only within its statutory authority and to protect *all* citizens, including those it regulates, and to avoid harming those citizens and their economic interests in the pursuit of a clean environment.

An EPA that is essentially waging a regulatory war on states and industries in a way that requires the repeated intervention of federal courts does not foster a regulatory environment supportive of energy growth, energy abundance, or energy security.

A major problem with the regulatory environment is the existence of multiple and often contradictory layers of regulation. The states are quite capable of regulating energy-related activity on their own, and federal regulatory involvement only complicates and adds burdens. Yet the EPA and many federal rule-making authorities insist on their own slice of control. Rules and regulations that affect local economics, or threaten economic survival, are best debated and implemented on a local level, and the fewer regulatory layers to navigate the more likely it is that energy abundance can be attained.

The EPA's coming energy regulation agenda is outlined in Appendix "A," which identifies over 10 major regulatory initiatives, and indicates that the burdens and costs of energy-related regulation are *increasing* in coming years, not decreasing. The implementation of EPA's 2010 Ozone Rule alone could impose additional costs of $90 billion each year on manufacturers and employers, while delivering only pennies in benefits for each dollar of cost.[32] Given the recent growth of oil and gas production in the U.S. (albeit on private lands) due to fracking and horizontal drilling the EPA is now examining all ways it can supplant state regulation and slow down drilling, and is clearly relishing and preparing for the prospect of regulating "fracking" processes. The energy production boom will stop or grind to a very low level, which is just what a highly vocal, well-funded group of policy advocates desire.

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A slew of job-killing regulations will be unleashed in a second term. With the election over, it's "full speed ahead" for federal rules limiting greenhouse gas emissions, requiring cleaner gasoline and putting controls on drilling for oil and natural gas … a regulatory onslaught that will drive up energy prices, destroy millions of jobs, and further weaken the economy.

- Sen. James Inhofe, R-Okla.

★★★★★★★★★★

Major environmental regulations were sidelined during 2011 and 2012 as the economy stalled and the administration campaigned for reelection. Senator James Inhofe, R-Olka., has authored a 14-page Senate Report[33] on expected EPA regulations for 2013, which predicts an influx of regulations that "spell doom for jobs and economic growth." The report suggests that 14 federal agencies led by the EPA will strive to regulate hydraulic fracturing in ways that will have "serious impacts on domestic energy production" and that aim to eventually eliminate the practice altogether.

The National Association of Manufacturers claims in a November 2012 report that major forthcoming EPA rules are likely to cost U.S. manufacturers hundreds of billions of dollars and eliminate millions of jobs. The report suggests that compliance costs for six major EPA regulations — including rules limiting air and water pollution from coal- and oil-fired power plants —

could reach $111 billion by government estimates and $138 billion by industry estimates. Construction costs could total $500 billion. NAM president and CEO Jay Timmons warned of a "devastating ripple effect" throughout the U.S. economy if federal rules are not relaxed or delayed, and that some manufacturers may well "close their doors for good" because of EPA rules.[34]

The policies of the EPA and states like California are purportedly intended to deliver a “cleaner environment.” But, what really happens is the opposite. Because these policies and regulations reduce domestic energy production and manufacturing, they drive it offshore, which in turn *increases* environmental risks; driving manufacturing and increasing energy production to places like China ensures that these activities occur in places with less regard for clean air than the U.S. The result: China pollutes the world at levels that bury our environmental improvements. The more energy production and manufacturing we do here in the U.S. the less polluted the world will be, and our policies and regulations should strive to keep these activities at home.

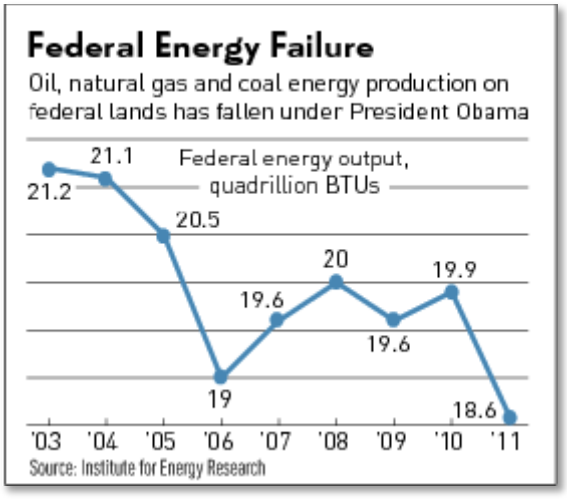
Government policy often yields damaging regulations that impose ever-increasing difficulties in developing our oil, coal, and natural gas resources. Public policy (and its implementing regulations) should not *restrict* production. The government should not decide how much energy is produced; only the free market can *properly* determine production levels. Regulators should not act as a barrier to production. They should encourage and assist in safe production, and curb reckless, irresponsible, or harmful production activities without acting as a barrier to production itself. Yet, creating barriers is what policy has done in practice.

The current administration’s policies on “in the ground” energy have been so bad that the U.S. House of Representatives Committee on Oversight and Government Reform on November 1, 2012 issued a report entitled “None of the Below – The Truth about President Obama’s Actions Against Domestic Energy Production,”[35] which extensively details many of the EPA’s damaging and anti-energy-development policies and regulations. The fact that this report even exists, that the U.S. House of Representatives is alarmed enough to commission and produce such a report, is an indictment of the U.S. EPA and the government policy prescriptions they are imposing.

A national energy policy for the 21st century must strive to stop the crippling burdens of current regulatory authorities and liberate the energy sector to produce efficiently and permit energy consumers to consume energy affordably rather than being forced out of business or offshore. Yet, driving up energy costs to reduce energy consumption seems to be a regulatory objective, not just an unintended consequence. Intentionally or not, government rules and regulations shouldn’t drive energy costs *up*.

Yet, regulations do drive up the price of oil, coal, and natural gas by adding uncertainty and more cost to exploration, production, transportation and consumption. The consequence of such policies is direct: Americans pay more at the pump, more for electricity, and more for heat. Increasing the costs of energy does not improve energy abundance or energy security. If the government actually thinks like Mr. Obama when in 2008 he declared that he wanted electricity rates for so-called dirty fuels to "necessarily skyrocket" and "if somebody wants to build a coal plant, they can—it's just that it will bankrupt them," then it’s clear that energy policy and the regulators are hostile to energy development, and this is bad for the country’s energy future.

Barriers to Drilling and Drilling Bans – Restricting Development



Perhaps the single biggest government energy policy failure is its restriction of energy development. Energy abundance and energy security have been made exponentially more difficult to attain because government policy actively restricts energy industry access to energy rich public lands and other domestic energy supplies, even as we subsidize countries like Brazil to access theirs. Below is a summary of relevant data points:

According to the Interior Department's Bureau of Land Management, in 2008 a total of 55,085 oil and gas leases were in effect on federal land. In 2011, there were just 49,174, an 11% decrease.[36]

In 2008 federal acreage under lease was 47.2 million but is now just 38.5 million, a 19% drop. In 2008 6,617 oil and gas permits were approved vs. 4,244 permits in 2011, a 36% decrease.[37]

The Heritage Foundation's Nicolas Loras notes that a recent EIA report documents that energy production fell 13% on federal lands in fiscal 2011 compared with fiscal 2010.[38] The EIA reports that total fossil-fuel production in public areas—oil, gas and coal—has plunged to a nine-year low, to 18.6 quadrillion BTUs from 21.2 quadrillion in 2003.

A snail-like permitting process has reduced planned capital and operating investments by $18.3 billion and cost the Gulf more than 162,000 jobs in just the past two years. In Utah and Wyoming, projects stalled by the National Environmental Policy Act processes are preventing the creation of 64,805 jobs, $4.3 billion in wages, and $14.9 billion in economic impact every year.[39]

Alaska's North Slope is kept from being fully explored, keeping further millions of barrels of oil off the market. One half of Alaska's National Petroleum Reserve has been put off limits. The NPRA, 23 million acres of North Slope wilderness, was established in 1923 by President Harding, and specifically set aside for oil and natural gas development to ensure a reserve of oil for the U.S. Navy. But the U.S. government has now walled off the most productive NPRA areas in an August 2012 Interior Department decision by banning drilling on nearly half of NPRA's 23.5 million acres of desolate, frozen wilderness. Alaska's entire congressional delegation says this is "the largest wholesale land withdrawal and blocking of access to an energy resource by the federal government in decades," and warn that the ruling "will significantly limit options for a pipeline" through the reserve long sought to transport oil and gas from the Chukchi Sea, the North Slope and future Arctic drilling.[40]

Alaska is vast and has a natural wealth of oil, but also has a high percentage of land under onerous federal regulation, which leaves it producing less oil than North Dakota. In North Dakota, the state governing authorities have, unlike the federal regulators, allowed and encouraged development.

Except for the central and western Gulf of Mexico, most of America's offshore oil and gas resources are now off limits. Some 94% of federal onshore lands and 97% of federal offshore lands are off-limits to exploration and development, including 3 trillion barrels of recoverable crude oil in the Green River Formation of Colorado, Utah and Wyoming — a bigger supply source than any other on Earth.[41] But, there *are* plans under way for offshore wind energy systems.

Energy Policy by government does matter. Here are some examples of recent government energy-policy consequences, as noted by Kenneth P. Green, a resident scholar at the American Enterprise Institute:[42]

> Since the *Deepwater Horizon* oil-rig disaster, US domestic oil production has slowed significantly, especially in the Gulf of Mexico. The slowdown in issuing oil and gas drilling permits as a result of the *Deepwater Horizon* spill is estimated to have cost the United States $4.4 billion in output costs, nineteen thousand jobs, $1.1 billion in wages, and over $500 million in lost federal, state, and local government tax revenues.[43] The Gulf oil spill also caused a slowdown in the allotment of shallow-water drilling permits. A study by Bernard L. Weinstein at Southern Methodist University looked at the effects of the slowdown in shallow-water permitting and found that it will cost fifty thousand jobs and that US income losses could exceed $12.5 billion.[44]

The Keystone XL Pipeline – Stopped in its Tracks

One of the keys to energy access and efficient and affordable energy production is distribution infrastructure. If energy resources can't be transported from the field to the refineries because the government won't permit industry to construct pipelines, another barrier and bottleneck is created. Energy companies have built and operated 55,000 miles of pipeline within the U.S., with an admirable safety record. Nothing about the design or route of the Keystone XL suggests that it poses any unique safety risks that existing pipeline technology and protocols don't sufficiently address. Yet, Keystone is blocked for political reasons, and while the nation waits for a coherent justification for delay between 20,000 and 100,000 related construction and energy jobs are not created, and the U.S. continues to buy an average of 869,000 barrels of oil a day from Venezuela, and ship it to refineries in Houston, instead of buying the *about the same amount* from Canada, the U.S.' closest trading partner, and transporting it more safely through a pipeline to the same refineries.[45]

The Keystone debacle is but one instance of government dysfunction that punishes and thwarts, and acts against its own interests as a sovereign nation, driven at the highest political levels by *non-energy* agendas. Consider that Keystone is just one high-profile example – there are countless others. When taken in combination with the other deliberate barriers to production created and maintained by the federal government, we face a historic first: The U.S. has become the only world power that systematically prevents its citizens from using their abundant natural resources, while simultaneously fostering the country's dependency, for critical energy commodities, on nations and peoples that mean to do it harm.

An Ideological Drive to "Get Off Oil"

What informs policy of high regulation and restriction of fossil fuels? It's a point of view held by many inside and outside government that oil is bad and must be eliminated as an energy source. President Obama, for example, has promised to "end the age of oil" and "free this nation from the tyranny of oil

once and for all." As a starting point for policy and implementing regulations, this view is surprising, if not dangerous, given that it completely ignores the profoundly important (some would say existential) role oil has played and does play in the creation and survival of our modern economy and humanity.

The "green energy" advocacy and "investment" policy is so driven by wanting to get rid of oil that it funded loans to solar manufacturers that it knew were very likely to fail. The ideological desire to "get off oil" is so strong in some quarters that it has led to the deliberate and knowing use of government (taxpayer) dollars to subsidize companies with junk ratings. The Washington Examiner reported on October 26, 2012 that a senior energy department official engaged in credit analysis at DOE's Loan Program Office (Jim McCrea) overseeing the green energy loan program admitted to colleagues in an email that:

> "I really cannot fathom how one figures out whether a loan to a PV [photovoltaic (solar)] manufacturer is being made to one that will survive. Everything about the business argues for the failure of many if not most of the suppliers.... All in all in the solar field, I think it is extremely easy to pick losers and I really do not know how to pick winners."

Past Government Energy Policies have Not Fostered Energy Abundance or Energy Security

Where states have permitted aggressive development and the advance of traditional energy resources, economies thrive, in dramatic contrast to the nation's economy as a whole (which suffers generally from a lack of energy policy coherence and the tilt of a "green" agenda within the government's ranks rather than an "energy" agenda). The nation's energy policy should have as one of its primary objectives the nation's prosperity.

Alternative energy sources, while promising, have fallen short. They remain far from commercially viable and simply can't displace conventional base-load energy sources in the near future. Instead of attempting to force alternatives on the market with mandates and subsidies, policy could better serve the national interest through incentives – like an R&D tax credit – that stimulate private investment in technology, and funding research that creates new knowledge.

A national energy policy, to have real value and credibility, would have to rise above the crony-capitalist temptation suffered by Members of Congress. Fact-based economic calculation has to guide energy policy, rather than blind faith in alternatives or blind determination to end fossil fuel use.
These ad hoc "agenda" policies force the American people to suffer higher energy costs for electricity and gasoline, and grave uncertainty about their energy future.

But even worse than failing to create energy abundance or security here, this country's long-standing energy policy failures have shepherded vast numbers of U.S. dollars (in the form of high energy prices) directly to the Middle East and other unstable regions of the world, funding the rise of their strategic importance and essentially funding the threat Hamas, Hezbollah, Syria, Iraq before the Gulf Wars, al Qaeda and others pose to world stability. This has made the world much more dangerous and caused U.S. defense costs to rise.

Some Closing Thoughts

Government standards, rules, regulations cause ever higher additional costs. Government programs become entrenched and live on long after they've outlived their useful potential. Government support for any industry often morphs into an industrial policy failure (Solyndra). Once government implements a program, it creates a constituency that never goes away (wind). Government programs to "support" anything rarely attain their stated object, but instead serve to advance the interest of government and those who wield its power, and the businesses that feed at the government trough as a part of their permanent business model.

The problem with government action as a solution to a problem is that usually there's not much of a problem there at all. Usually the government would have better just permitted the natural forces of market economics to respond to the problem (e.g., energy production, supplying abundant energy at low prices).

But sensible, cost-conscious and target-effective government solutions are in short supply in the real-world – even though many people suppose otherwise. Instead, the U.S. is saddled with decades-old policies that portend significant implications as they drive energy costs up, slow the economy, and increase unemployment, deficits, defense costs, and world pollution.

Government "solutions" for perceived problems need a reality check. The only *viable* government solution is to ensure that private sector is as free as reasonably possible to do what it does best and that everybody's rights and interests are reasonably protected in the process. The best thing government can do is permit the energy producers to produce, permit the energy innovators to innovate, encourage *private* capital to fund promising energy technologies, permit the marketplace to work, permit free trade to occur, encourage innovation, and liberate the productive. If government would engage in this solution, we'd have more energy than we could dream of.

The fundamental problem with energy policy historically is that it's an abstract idea loved by politicians of all stripes because it heightens their relevance and power through incentives, subsidies, gimmicks, initiatives, and promotions. Such measures are ineffective, usually work against each another, always cost a lot of money, and ignore history's grand lesson: markets allocate resources and attain efficiency far better than bureaucrats.

Appendix "A"

Source: Institute for Energy Research - http://www.instituteforenergyresearch.org/2012/11/07/an-energy-policy-preview-of-president-obamas-second-term/

The Obama Administration's Energy Regulatory Agenda

- **New Source Performance Standards for Greenhouse Gas Emissions from New Fossil-Fuel Power Plants**. EPA released the proposed rule in March, but has not issued the final rule. EPA insiders claim that more than 50 EPA staff are working feverishly on the rule to finalize it in the coming days.[1] The rule bans new coal-fired power plants that do not capture carbon dioxide emissions, and since it is cost-prohibitive to capture those emissions, this is effectively a ban on new coal-fired power plants. Earlier drafts of this rule included references to the same regulation applying to existing coal-fired power plants. EPA claims that the rule is not meant to regulate existing plants, but that argument is not on solid legal footing and current plants could be regulated when they seek to comply with other rules such as the Mercury and Air Toxics Standards.
- **Greenhouse Gas Standards for Existing Power Plants and Refineries**. EPA has been in negotiations with environmental special interest groups to create deadlines for greenhouse gas emission regulations for existing power plants and refineries. President Obama's victory means that EPA and environmental groups will come to an agreement, but time for such an agreement does not appear to be of the essence.
- **Ozone National Ambient Air Quality Standards.** In 2008, the Bush administration tightened ozone regulations. The Obama administration wants to tighten them further. EPA has looked at tightening the standards, but regulations come at a steep price. It could cost 7.3 million jobs and $90 billion a year by 2020. According to the *New York Times*, President Obama decided to hold off on this regulation until after the 2012 presidential election, which displeased some of his strongest supporters in organizations opposed to the use of conventional energy sources. It is likely EPA will propose these new ozone regulations in the next couple months.[2]
- **Tier 3 Motor Vehicle Emission and Fuel Standards**. These "Tier 3" standards would regulate gasoline and the emission control systems on vehicles. EPA has expressed a desire to lower the allowable amount of sulfur in gasoline even further than the existing Tier 2 regulation. According to the best available study,[3] just a single component of the new Tier 3 proposal would impose upfront compliance costs of almost $10 billion on gasoline refiners, and cause a permanent increase in refining costs of 6 to 9 cents per gallon of gasoline.[4] EPA insiders say that the Tier 3 is near the back of the line behind the court-mandated regulations, but these rules will likely be issued over the next few months.
- **Coal Combustion Residuals (Coal Ash)**. The Obama administration is considering classifying coal ash as a hazardous waste. The most significant problem with doing so is that currently millions of tons of coal ash are recycled every year and used for a variety of purposes including Portland cement, kitchen cabinets, and wallboard. This rule also increases the cost of using coal to produce electricity. The Obama administration will likely issue this rule sometime in the next few months.
- **National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers (Boiler MACT).** This rule regulates air emissions from more than 200,000 industrial boilers and process heaters around the country. According to EPA, the 2010 version of this rule had an upfront cost of $9.5 billion and an annual cost of $2.9 billion. Boiler MACT has

had a complex regulatory history, but the White House has had the final rule since May 17. Therefore, it is very likely EPA will announce a final rule before the end of the year.[5]

- **Cement MACT.** EPA proposed a rule to regulate air emissions from cement plants in June. The previous rule has been litigated and it is very likely the new rule will be finalized by the end of the year.
- **Bureau of Land Management's Hydraulic Fracturing Regulations.** Currently groundwater and activities that affect groundwater are regulated by the individual states, even for activities on federal land. BLM will finalize regulations to regulate hydraulic fracturing on federal and Indian lands managed by the federal government—despite state groundwater regulations—in the coming months. This rule is estimated to result in economic costs between $1.4 and $1.6 billion each year.
- **National Ambient Air Quality Standards for Particulate Matter (PM 2.5).** This summer EPA agreed with environmentalists to finalize a new NAAQS for PM 2.5 by December 14th.
- **Renewable Fuels Waiver.** Several states petitioned EPA to waive the renewable fuels standard due to the severe drought and smaller corn crop in much of the country. EPA postponed a decision until after the election indicating that EPA would likely not grant the waiver.
- **Cellulosic Ethanol Mandate.** Despite the fact that only 20,000 gallons of cellulosic ethanol have been produced this year, EPA will continue to mandate that millions of gallons of ethanol are mixed in gasoline. In previous years, when biofuel wasn't being commercially produced, EPA still imposed millions in fines on the refining industry for failing to meet the mandate to use the non-existent biofuel. In 2013, the amount of cellulosic biofuel required to be blended into the fuel supply is 1 billion gallons of fuel—a far cry from this year's paltry 20,000 gallons.

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