

It's Time for a National Energy Policy

Why a National Policy Could Dramatically Improve American's Energy Future



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Anyone concerned with America's energy future and the stakes for policy can benefit from this forthright, no-nonsense review produced by NEI. Here's what experts are saying about this paper and topic:

"Each year Americans send OPEC countries roughly \$129 billion in 'foreign aid' for their oil while we keep our own energy resources under lock and key. In a nation rich with oil, coal, natural gas, and nuclear know-how, there is no reason for the United States to rely on foreign nations to meet our energy needs. Energy independence is both a matter of national security and regional prosperity, which is why developing a national energy policy is so critical. I applaud all the Nemacolin Energy Institute participants for working together to develop commonsense solutions."

—**Congressman Tim Murphy (PA-18)**

"Developing a National Energy Policy should not be about 'if,' but 'when.' If every American had to spend a tour of duty fighting in the Middle East, we would already have one."

—**Randy C. Huffman, Cabinet Secretary, [West Virginia Department of Environmental Protection](#)**

"This white paper serves as a blueprint for a comprehensive, effective national energy policy and crystalizes the desperate need to address our country's energy requirements. Economic recovery and stability are extremely important, but the most compelling driver for a comprehensive national energy policy, as outlined in this white paper, is national security."

—**Jack Partridge, President, [Columbia Gas of Ohio](#)**

"Resources we currently devote to foreign oil can now be redeployed here at home to produce our own energy, and doing so creates new jobs and advances technology, infrastructure investments and intellectual property development. The best result of this commitment: the U.S. regains its edge in the global energy marketplace, sees new products emerge, and draws dramatic new investment into its economy. This economic recovery in turn generates shared excitement and motivation in our workforce, revitalizes civic organizations, and most importantly, secures the involvement of our youth and their aspirations for the future -- a seminal change-agent for the future. As explained in this paper, it is indeed time for a national energy policy designed to realize these important energy-related benefits."

—**Dr. James Smith, Professor and Director, Center for Industrial Research Applications, West Virginia University.**

Introduction

America's prosperity, security and economic activity require a lot of energy. As a nation, we recognize the simple truth that every aspect of our lives, our safety, our economy, our security, our comforts, our businesses and industry, our productivity and profitability, our science and technology, our mobility, and our infrastructure all rely on and are built around the use of energy, including fossil-based fuels. Fossil-energy use is a necessity, not a choice; it is reliable, delivering *a lot* of power affordably and efficiently. We use these fuels because they are *very* economical. The innovative use of energy over 140 years is responsible for our nation's economic growth, living standards, and prosperity.

Perpetuating our economy's growth and our civilization's existence are inextricably tied to energy abundance and the efficiencies of fossil fuels. It's a deep-rooted relationship. Not surprisingly, the Energy Information Administration (EIA), consistent with private firms, forecasts that the U.S. energy budget in 2035 will remain dominated by oil, natural gas and coal, which combined will provide 73% of our energy usage, just under what they provide today. In the same time frame, renewables like solar, wind and biofuels will experience rapid growth, and will play an increasingly relevant role as those technologies, their power utility, and their delivery infrastructure improve, but they will only fill about 14% of our energy needs.¹

Our domestic energy production doesn't rise even close to its potential given our extraordinary natural resources. Heavy regulation borne of well-intentioned environmental concern in the 1970s has had consequences. In recent years a regulatory leviathan has shifted its focus away from just keeping water and air clean to agenda-driven layers of complex economic influence; it has in many other respects grown outdated, failing to keep up with technological reality, safety records, industry environmental focus and expertise, and environmental improvement.

Fortunately, with many energy options available, our energy and economic future could be bright, if energy policy permits it, and we don't fumble the energy ball. A coherent national energy policy could light the pathway to that future.

The New Reality of America's Energy Abundance

The Energy Scarcity Myth - Conventional wisdom is hard to shake. Unfortunately, conventional wisdom often governs policy even when it is wrong. For decades the U.S. has been a net importer of hydrocarbon energy, which has led to the general presumption that we consume dramatically more hydrocarbons than we can produce, and the conclusion that we can never drill our way to energy independence, and therefore must forget about oil and natural gas and pursue only green "alternatives." In fact even President Barack Obama, continues to assert that the "U.S. consumes 20% of the world's oil, but only has 2% of the world's proven oil reserves." This mantra is endlessly parroted in media reports about energy, like this statement by Neela Banerjee of the LA Times on March 12, 2012:

"More domestic drilling will not end the need for imports, however. The United States holds only 2% of the planet's proven oil reserves, but Americans consume 25% of the world's daily output of crude oil."²

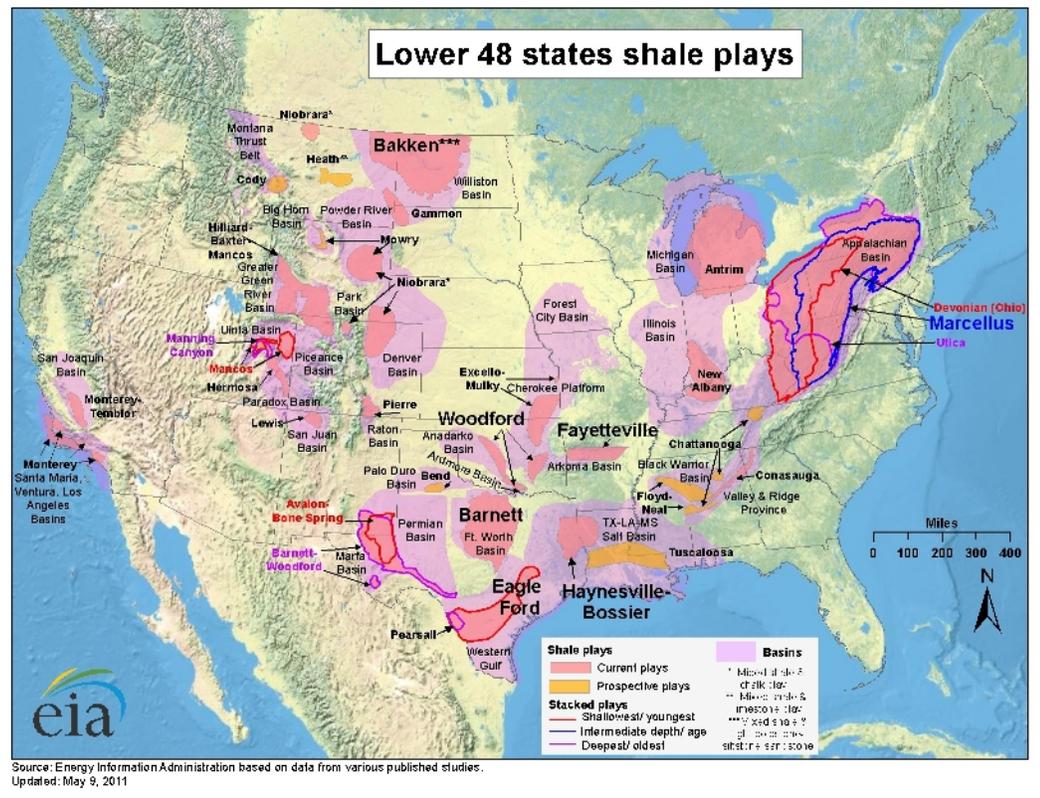
There are many who benefit from perpetuating the domestic scarcity myth, especially those who want to diminish the use of fossil energy or just sell more renewable energy. The hitch in the myth is the term “proven reserves,” which is widely misunderstood to mean “all of what we have.” “Proven” actually means that tiny portion of our total energy resources that have been “discovered” (verified) through drilling or testing and which can be recovered (produced) economically. “Proven reserves” are a small subset of recoverable resources, because they only count oil currently being drilled for in existing fields; “proven” reserves don’t include oil and natural gas known to exist but inaccessible because of regulatory barriers.³

Proven reserves aren’t static; they expand through 1) technology that converts hard-to-produce resources into proven reserves, 2) oil price increases that allow more expensive oil types to be produced, and 3) the purchase of additional leases that permit exploration in new oil basins.

Consider this, in just one year, from 2009 to 2010 the U.S. EIA increased the proven crude oil and lease condensate reserves by 12.8% and the wet natural gas reserves by 11.9%. In fact they reported that “[p]roved reserves of U.S. oil and natural gas in 2010 rose by the highest amounts ever recorded since the U.S. Energy Information Administration (EIA) began publishing proved reserves estimates in 1977.”⁴

Energy Abundance is Reality - Facts are stubborn things, and today’s facts make perpetuating the scarcity myth impossible.

Sadly, and alarmingly, conventional wisdom hasn’t caught up with the facts about North America’s geologic energy bounty, and regulation doesn’t reflect energy producers’ dramatically improved risk profiles and environmental expertise. Here are just some of the not-yet-widely-known (or admitted) facts about North America’s hydrocarbons in 2012:



- The U.S. has more proved coal reserves than any other country, 261 billion tons (over 27% of the world’s proven coal reserves), and 486 billion tons in demonstrated reserves, enough for 485 years of domestic consumption,⁵ and has the technology to burn it cleaner than any other country.
- The technological breakthrough combining horizontal drilling in conjunction with hydraulic fracturing and seismic testing now permits affordable access to [750 trillion cubic feet](#) of recoverable shale gas resources within the U.S.’s lower 48 states, and could supply U.S. consumers’ energy needs for hundreds of years.

- The Marcellus shale formation, stretching across 95,000 square miles in New York, Pennsylvania, West Virginia, Ohio and Maryland, is estimated to be the second largest natural gas find in the world, containing more than 410 trillion cubic feet of natural gas.⁶
- The Utica Shale is a rock formation located *below* the Marcellus Shale, which also has the potential to become an enormous natural gas resource. It is thicker and more geographically extensive than the Marcellus, and has already proven its commercial production capability.⁷
- North Dakota’s proven oil reserves have, through technological access, increased 25-fold in 13 years, and are likely to grow much larger.⁸
- The [Green River Formation](#) in Wyoming alone has 1.4 trillion barrels of recoverable oil⁹ — sixty-two times as much as those citing “proven reserves” count today. The Department of Energy (DOE) estimates that Colorado, Utah and Wyoming sit atop potentially 1.8 trillion barrels of shale oil in deposits greater than 15 barrels/ton.
- The Monterey Formation (aka the Monterey Shale), a zone of petroleum-rich rock that extends much of California’s length, holds an enormous amount of oil, estimated at up to 500 billion barrels. If even a small fraction of its reserves proves accessible, the Monterey could be one of the biggest shale-energy plays in the nation. In July 2011, the Federal Energy Information Agency (EIA) estimated that the Monterey had 15.4 billion barrels of recoverable crude — four times what’s estimated to lie within North Dakota’s Bakken Shale formation, which is worth \$1.5 trillion and puts Monterey in a class with oilfields in Saudi Arabia.
- Other recoverable sources include: 86 billion barrels of oil on the outer continental shelf; 24 billion in the lower 48; 2 billion on Alaska’s north slope; 19 billion in Utah tar sands; 12 billion in ANWR. Then add in oil shale: 800 billion just in Wyoming and neighboring states.¹⁰
- According to the Department of the Interior, the U.S. has 102 billion barrels of oil under its Outer Continental Shelf, enough oil to fuel 85 million cars for thirty-five years, but presidential, congressional, and state moratoria place most of it off-limits to exploration and development.¹¹
- Currently, only about 3% of government property is leased for finding energy. Hundreds of millions of acres of oil-rich federal lands are off limits to energy development.
- The U.S. has enough recoverable oil for the next 200 years, despite only having 2% of the world’s current “proven” oil reserves.¹²
- The United States has [1,442 billion barrels](#) of technically recoverable oil, but only about 20 billion barrels are considered proven oil reserves.¹³

U.S. Energy Reality has Changed Dramatically

“The energy world has been turned upside-down—but not in the way that many expected. While policymakers globally have focused on “alternative” forms of energy, from solar and wind to plant matter and tides, the landscape has profoundly changed on both the supply and demand sides of the equation.

The game-changing technologies that have emerged involve hydrocarbons: natural gas, oil, and coal. Technology has unleashed staggering quantities of commercially exploitable reserves of these fuels, especially in the United States and its neighbors in North America. The implications for the American economy and its role as a world leader are, if fully realized, nothing short of revolutionary.”

“The United States, Canada, and Mexico, are awash in hydrocarbon resources: oil, natural gas, and coal.

The total North American hydrocarbon resource base is more than four times greater than all the resources extant in the Middle East.

There are roughly 13 trillion barrels of oil equivalent in Canada, Mexico and the U.S. That dwarfs the Middle East’s total of 2.6 trillion barrels of oil equivalent.

An 80% increase in aggregate hydrocarbon production over two decades, would yield over \$7 trillion of value to the North American economy, with \$5 trillion of that accruing to the U.S.”

■ [Mark P. Mills](#), Adjunct Fellow,
Manhattan Institute

Innovation is Essential

All of this means that North America is facing an energy revolution, and with the right policies in place, could not only supply all of its energy needs for hundreds of years, but could become the largest supplier of fuel to the world by 2030.¹⁴ Low-cost natural gas is a boon to domestic manufacturing, especially in the industrial Midwest, home to vast concentrations of gas in the Marcellus and Utica shale formations. In such ascension, the U.S. would be virtually energy independent, and its wealth would grow as 2.5 million more American jobs are created.¹⁵

The old scarcity paradigm holds that we're fast running out of carbon-based fossil energy resources, and must force a shift to "renewable" energy alternatives. That paradigm itself, and the direction of U.S. energy policy, now shift inexorably toward *recognition* of our energy reality: that we're actually swimming in such fossil energy sources, more fossil fuel reserves than any other country in the world, and we have the technology to extract it very safely, but are saddled with outdated (poor) policies that don't allow us to access them (and use them to balance and ease the appropriate market-based adoption of emerging "alternative" energy technologies over time).

Such abundance is a gift of geology and human ingenuity if there ever was one;¹⁶ it's a big change that few foresaw as little as five years ago, and it warrants a national policy to ensure that the U.S. *realizes* that abundance and avoids policies that undermine the associated economic boom or national security advantages.

Abundance Alone is Insufficient – Even though our energy production has increased dramatically in recent years (U.S. oil production is [up 12%](#) over the past year alone. Natural gas production, while low prices may have plateaued it in recent months, is up [28% since 2006](#)), we cannot afford to become complacent. Former CIA Director John Deutch puts it nicely:

To be sure, a North America independent of oil imports still isn't energy independent. The U.S. economy will continue to be subject to world oil prices, and supply disruptions in the world will still create price spikes.¹⁷

To minimize the impact of market and supply factors outside of our control, the U.S. should maximize the impact of factors *within* its control by prudently developing a long-term national energy policy – it would be a useful tool.

"Horizontal drilling and fracking have made oil shale and tar sands rich sources of oil and natural gas, so much so that the United States may prove to possess the largest store of fossil fuel reserves in the world -- in theory, with enough gas, oil and coal soon never to need any imported Middle Eastern energy again. 'Peak oil' is suddenly an anachronism. Widespread American use of cheap natural gas will do more to clean the planet than thousands of Solyndras. If the United States utilizes its resources, then its present pathologies -- massive budget and trade deficits, mounting debt, strategic vulnerability -- will start to subside. These new breakthroughs in petroleum engineering are largely American phenomena, reminding us that there is still something exceptional in the American experience that periodically offers the world cutting-edge technologies and protocols. ... Who would have thought that a few fracking innovators in Texas would change the world's carbon footprint far more than did Nobel laureate Al Gore -- while offering a way for the U.S. to be energy-independent."

--Historian [Victor Davis Hanson](#)

Why is a National Energy Policy a Good Idea?

Making the case - a long-term national energy policy makes sense and is a key to our economic future.

The value of establishing a national energy policy can't be underemphasized. Today, there is a vast gulf between several key energy-related factors:

- The need for abundant energy to fuel our modern economy, our businesses and our national security;
- Today's known domestic energy abundance;
- The complex of mixed policies fostered by our erroneous scarcity paradigm; and
- The rapidly changing global energy market.

This gulf needs a bridge, and the fortitude to cross it.

The prospect of ensuring strong economic growth while moving toward energy independence and energy security hangs in the balance. A thoughtful, comprehensive national energy policy today is fitting, relevant and likely to help accomplish several very positive things for America.

Get the Nation to Recognize and Understand Energy Reality

A national energy policy can focus the nation's attention on the subject and provide clarity, present facts, and cut through ideological fog, media sound bites, and misinformation.

Today's geopolitics, the world's exploding economies (China, India), and instability in energy exporting countries make it very risky for the U.S. to continue to rely so heavily on foreign energy sources, or allow events outside our control to govern our energy future. Permitting a self-inflicted regulatory maze to encumber and diminish our energy sector is equally risky. The staggering scale of world energy demand today makes this issue a central challenge of our time.

"There are a tremendous number of projects that are ready to go if we can get them permitted, if we reduced the regulatory process. Right now the U.S. Chamber of Commerce estimates there are more than 350 projects that are stalled because of not being able to get permitted or because of regulatory burden."

The Chamber estimated those projects could create nearly 2 million jobs annually and produce more than \$1 trillion in gross domestic product.

North Dakota Senator John Hoeven

Other countries foresee a huge increase in their demand for energy in the coming decades – and they deliberately seek to establish *control* over energy resources, and are determined to meet their growing demand, no matter what. Unlike the U.S., they are quite rationally *not abandoning* coal, but are determining how best to use it, and are planning to use as much of it as they can get their hands on – because it's affordable and packs an energy punch. They are *aggressively* developing and pursuing any and all forms of energy possible, and not just in *their* backyards, but in ours.

The U.S.'s ability to influence and rely on the world energy market, as it once did due to the scale of its energy demand, is rapidly diminishing.

Yet the U.S., with today's fractured and ineffective policy, appears passive and indifferent to these looming global energy demands, and the risks they pose. Perhaps this is why the U.S. remains one of the only developed countries in the world without a clear national energy policy. Faced with increased global demand and competition for energy resources, the U.S. would certainly benefit from a serious national policy that ensures access to and use of *all* domestic energy sources, rather than policies that "prefer" some energy sources and sideline others (a luxury we can't afford). Passivity and self-destructive policy are no longer options.

Since we need abundant energy resources to sustain a vibrant and competitive U.S. economy and domestic hydrocarbon energy resources are now *known* to be available for the task, the nation needs a policy that forthrightly recognizes a few basic premises:

- Energy abundance and affordability are the primary and most legitimate policy goals.
- Energy politics has hindered our energy sector's ability to produce abundantly and must change.
- North America's vast hydrocarbon resources are available at reasonable or very low costs—and can be extracted (and used) safely and with sound environmentally practices through rapidly advancing technologies (and the private U.S. energy sector developed these technologies).
- Fossil energy can't be replaced or supplanted by "renewables" in the foreseeable future without forcing gravely adverse economic consequences.
- Wisely using our own oil, coal, and natural gas poses overwhelming economic and energy-security advantages for the United States.

For example, coal and natural gas prices have declined substantially over the last four years as their production has increased on state and private lands through improved technology, increasing supply. Between August-September 2008 and June 2012, the price of Natural gas dropped from \$7 per million British Thermal Units to under \$3 per million BTUs, which is saving the U.S. economy around \$264 million every day.¹⁸ In addition to lowering energy prices, increased domestic fossil-energy production has helped reduce the amount of oil and gas imported by the U.S. In August, 2006 the U.S. imported 455,595,000 barrels of oil and petroleum products, but by February, 2012 imports had declined 33% to 303,455,000 barrels.¹⁹ Significantly, natural gas imports have dropped even more precipitously – by 43% - between August, 2007 (426,534 million cubic feet) and April 2012 (243,015 million cubic feet).²⁰

"Thanks to recent advances in technology we now have access to a nearly 100-year supply of natural gas, and our ability to tap into that supply will bring significant economic, geopolitical, and other benefits."

■ Heather Zichal, Deputy Assistant to the President for Energy and Climate Change, remarks at NDN, Washington, DC, June 25, 2012

This already measurably increased independence from foreign energy suppliers improves our energy security posture. Dependence on foreign countries and the myriad uncertainties they foment has always been a dubious proposition. (Losing lives and taxpayer dollars on buying and protecting foreign energy supplies is morally indefensible when plentiful and accessible domestic sources exist today). Less dependence liberates America to better determine its energy future.

While, sadly, the affordability of renewable energy has *not* declined quickly enough, and its government-supported production has not saved the economy any money yet, the wealth and economic growth created today by a vibrant hydrocarbon energy sector can itself provide the resources to fund ongoing basic research in "renewables" that could increase their utility and help them to eventually become cost competitive (both

through private industry initiatives and government projects funded by royalties and taxes on extracting and oil, gas, and coal).

The new energy economy reality is stark and clear. Considering the unrelenting growth in the world's hydrocarbon appetite and the related export and geopolitical opportunities that are emerging for the U.S., the economic and social value of these resources is simply astonishing in the context of economic history.

It's important that these unprecedented energy and economic opportunities are not squandered through indifference or petty infighting. A national policy could help us acknowledge that changing our use of hydrocarbons can't occur through mandates or by funneling taxpayer money into less efficient and much more costly "alternative" energy. The utility of hydrocarbons is too high to attempt to marginalize their role in a vibrant, growing economy and in our national security. By strengthening the energy sector generally, an overall energy policy would improve the chance of realizing the potential of alternative energy sources like wind and solar. A national policy that fosters (encourages) the prudent (and active) development of fossil-energy resources, and renewables, by the domestic energy industry would be very good for America.

Overcome Unworkable Patchwork Policies and Foster Predictability

Remarkably, U.S. energy policy dialog (and public understanding of policy consequences) lags far behind the reality of this new energy economy. Politics, cronyism, and one-dimensional agendas still govern the posture of those prescribing energy policies today, rather than the nation's long-term energy (and economic) security. For example, the Wall Street Journal notes the wastefulness of a needlessly burdensome permitting process:

"[Energy] development is now surging on state and private property, but federal acres open for leasing and exploration have fallen 18% since 2008. The rate of permitting has slowed by 37%; it takes 307 days on average to get a drilling permit. North Dakota does it in a week and a half, Ohio in two. ... [T]he larger federal regulatory state ... takes seven years to approve a major energy project when it does it at all. Think: Keystone XL pipeline. In 2010, the Chamber of Commerce identified 351 projects delayed or rejected by the feds that would have created more than a million jobs and added \$3.4 trillion to growth over time."²¹

Investor's Business Daily has observed another sad example of policy dysfunction:

"As the Hoover Institution's Peter Schweitzer documented recently, members of Obama's campaign finance committee, his campaign bundlers and major Democratic donors received \$16.4 billion of the \$20.5 billion in loans and grants doled out under 'green stimulus' programs run by Obama's Energy Department. This is crony corruption, pure and simple."²²

Our economic future and well-being can't suffer such political failings any longer. To get it right for the nation and the future, today's energy policy must be driven by *leadership* focused on actually attaining energy abundance, affordability and security, not by short-sighted ideological posturing or cronyism.

*It is time for the United States to adopt a **national energy strategy** that responsibly addresses the interests of energy consumers (the energy market) the energy industry, the environment, the economy, and our national security.*

Policy consistency and predictability and regulatory stability are recognized pillars of economic strength. A wise national energy policy would support these things. But, in the U.S. we suffer a widely mixed bunch of ad hoc energy policies that are not coherent and often contradict or confuse. Worse, these policies change randomly with the political winds. Many existing policies and regulations are outright hostile to energy producers and technologies labeled environmentally incorrect, especially coal, nuclear, and oil. (A typical U.S. power plant's environmental compliance costs are now astronomical; utilities need stability to function.) Some are specifically designed to limit or eliminate the use of these energy sources. (In 2008 Senator Obama said he would "end the age of oil in our time," which "would take nothing less than a complete transformation of our economy.") Other policies favor and coddle energy producers who have failed to demonstrate their value in the marketplace.

Patchwork policy makes it very difficult for the energy sector and the market to behave rationally or efficiently. The existence of so many different policies is a serious barrier to energy investment, development, innovation and dialog. And while this hampering patchwork exists the energy *world* continues to move forward, forcing the U.S. to miss energy opportunities.

One reason it's important to have a stable national energy policy that doesn't constantly change with the political winds is this: the absence of a clear policy, the presence of contradictory policies, or the risk of whimsical policy change renders uncertainty for all investment in the energy sector (which increases risk), and they foster the non-allocation or misallocation of resources to productive energy enterprises. If policy isn't clear or isn't reliable and predictable the result is inevitable: gridlock in energy investment, wastefulness, and higher energy prices.

The markets need long-term business certainty to function efficiently, maximize value, and best stimulate the economy. The certainty provided by a coherent federal policy framework would allow industry players and private-sector innovators to figure out how to best reduce carbon at the lowest cost. Moreover, the existing policy patchwork makes the game impossible to understand, makes long-term planning impossible (with tax credits, rebates etc., changing every couple of years), and leaves new technologies sitting idle for want of capital.

A comprehensive national energy policy could provide the consistency and predictability needed for long-term energy and economic success. By defining broad standards and objectives a national policy could help *streamline and simplify* regulations that now impose costs, delays, and other adverse consequences. The Wall Street Journal has aptly observed:

"A unit of energy is a unit of energy, so the main role for Washington should be creating transparent, stable policies so private investors can apply their inventiveness to keep supplies growing and prices low."²³

Lead the U.S. toward Energy Self-Sufficiency and Energy Security

The U.S. remains highly dependent on foreign oil. This increases costs, reduces options, and increases security risks. It forces us to put money into other, not-so-friendly economies, rather than our own. Depending on foreign oil producers also increases environmental risks associated with long-distance shipping and lax production standards. Yet our regulatory leviathan effectively prevents the nation from accessing and using its own energy resources to dramatically improve energy independence. Increasing our access to reliable domestically produced energy sources is essential to reducing dependence on foreign energy.

By “energy independence” we’re not talking about independence from oil and other hydrocarbon energy sources, but self-sufficiency in the production of the energy required to meet our economic and security needs.

This essential shift toward energy self-reliance can occur more effectively and at a better pace with a straightforward national policy designed specifically to attain that objective – by focusing on and encouraging the development of *all* domestic energy resources, both traditional and renewable, to boost domestic energy supplies. Such a national policy is needed to transcend and supersede the persistent squabbling between those who think all fossil-energy use damages the planet, and those who want our economic liberty to survive, grow, and thrive (which is impossible without abundant energy).

Freeing our nation from dependence on unfriendly and unreliable foreigners for our energy is not only an economic issue, it’s a very real national security issue. Given our reliance on oil for transportation, we are highly vulnerable to supply disruptions and price shocks rippling through the global market and energy supply chain. Oil shortages and price swings pose a risk to our economic capability. We can attain energy *security* through policy that fosters a durable and reliable energy market that can meet demand through competitive prices.

While *total* energy independence is not necessarily achievable or even desirable, moving much closer to energy independence and improving energy security (a position where the U.S. produces more energy than it consumes) are highly desirable outcomes that could be advanced by a national energy policy.

Enable North America to become the Leading Energy Supplier

Thankfully, hopeless dependence on oil and gas imports and the troubled Middle East is likely to become a thing of the past. Energy experts now project that North America will have the capacity to be a net exporter of oil and natural gas by 2020, transforming global politics by diminishing the relevance of less stable energy producing countries. Without a coherent national energy policy, these prospective trade and leadership opportunities are less likely.

A national energy policy could help the country focus on common energy objectives, and bring energy industry participants together so they can work collaboratively toward realizing the prodigious advantages and opportunities presented by the unusual combination of our vast natural resources, our technological capabilities, our vigorous energy sector, and world demand for energy.

Support the Creation of Millions of Private-Sector Jobs, Economic Revival, and Increased Revenue to the U.S. Treasury

Government policy should strive to foster industry development that creates private-sector jobs and supports communities – without reliance on taxpayer subsidies. A well designed national energy policy would ensure a healthy and vibrant energy industry, and overcome policies that harm the industry. A national policy that recognizes our fossil-energy abundance and fosters (or just permits) its development will not only deliver energy to American consumers and businesses; the economic activity associated with energy production, and the increased availability of affordable energy, will stir the economy, create millions of jobs for Americans, promote new industries or technologies, and increase economic activity generally. The economic impact will be transformational.

Increased production of abundant domestic fossil energy will lower costs for consumers, increase economic activity, provide a competitive edge for U.S. industries, and could, according to Citigroup analysts, increase real GDP by 2% to 3.3% annually over what it would otherwise be through 2020.²⁴ Through oil and gas extraction over the coming decade 3.6 million net new jobs are estimated in the U.S. and Canada, and, through increased tax receipts, the U.S. budget deficit could shrink by 60%.²⁵ A national policy that enhances and *enlarges* domestic energy production would also significantly increase revenues to the U.S. Treasury.

A strong, successful energy sector produces a lot of jobs and a lot of energy for other job creators. Without energy, no one can create jobs. All jobs require abundant energy. Even if the energy industry itself wasn't creating a lot of jobs, the availability of a reliable and affordable energy supply creates jobs throughout the economy. Moreover, as energy costs decline, enterprises across the land have more resources available for expanding their operations and workforces.

A sensible national energy policy that provides long-term predictability and permits access to and responsible development of in-ground resources is an unprecedented opportunity for the United States to *increase* economic growth, job growth and energy independence. By creating potentially millions more jobs, a national energy policy can lift the economy and help reduce the deficit.

Given the U.S.'s sputtering economy, and persistent long-term unemployment, the entire country could use a *prolonged* energy boom shepherded by prudent energy policy designed to advance our immediate and future economic interests. Despite our poorly conceived and burdensome energy policies, our private energy sector is nonetheless driving a great deal of what little economic growth the U.S. presently has.

Today, 9.2 million Americans hold jobs supported by the oil and natural gas industries.²⁶ All across America, communities are experiencing unprecedented economic revivals stimulated by oil and gas development booms emerging over the last five years. In Pennsylvania alone 80,000 well-paying jobs have been created in the last few years as the Marcellus shale gas play development has emerged. Rural counties that have long struggled economically are being revitalized; many new businesses are being started to serve the energy industry. Countless landowners are receiving gas-lease royalty checks they couldn't have imagined five years earlier.

The biggest threat to these unprecedented economic opportunities is overbearing or confused regulations based on misinformation or political agendas. Permitting this economic revolution to be shuttered or diminished by bad policy or inappropriately burdensome regulation would be a mistake of monumental and historic proportions. A sensible national energy policy could allow Americans to avoid this tragic outcome and take back their energy and economic future.

Ensure Sound Environmental Stewardship

Ideally, energy policy leaders would acknowledge that environmental protection and energy development are not in opposition, but work hand in hand. It is only the strong, prospering economies that have historically demonstrated the ability to wisely manage their use of fossil energy to minimize adverse environmental impacts.

Through a coherent national energy policy we can ensure that our environment is protected and that we produce the energy resources needed to support our modern economy at the same time. A national policy designed to foster continuing technological development in all energy sectors will *allow* the energy industry to ensure *real* environmental stewardship in connection with developing all energy sources. Environmental stewardship is dependent upon and goes hand in hand with active development and the technological innovation that only ongoing development can bring.

One way to reduce carbon emissions is to permit and encourage the expanded development of nuclear energy. Nuclear is the only baseload energy source of carbon-free electricity, is a significant part of our energy portfolio, holds promise for the future with the advent of innovative reactor designs, and prevents more than 613 million metric tons of carbon dioxide every year.

Another is allowing the energy market to work. Increased natural gas production in recent years through the improvement of “fracking” and horizontal drilling processes has single handedly reduced the U.S. carbon emissions through private sector innovation by more than any “environmental policy” has. As a result of fracking, CO2 emissions in the U.S. have hit a 20-year low as power plants replace coal with plentiful, low-cost, cleaner-burning natural gas.²⁷

The U.S. Energy Information Agency says the U.S. has cut CO2 emissions more than any other country over the last six years, back to 1992 levels, and that this is due mainly to low-priced natural gas.²⁸ Fracking leads to plentiful, affordable natural gas, which increases its use, which leads to cleaner air *and* lower energy prices, *and* jobs *and* economic growth – something the EPA’s mandates and regulatory approach could *never* accomplish.

Allowing the energy industry and markets to thrive generates the resources to advance environmental science, technology, and best practices, and thus environmental protection. A national energy policy could bridge the incessant gap between environmental lobbies and energy producers while supporting the goals of reducing energy-related pollution, CO2 emissions, and adverse health effects from burning fossil fuels. This is a key task of a coherent national energy policy.

Hurdles and Barriers to a Successful National Energy Policy

While these diverse reasons for a national energy policy are compelling, a lot stands in the way of successfully developing and implementing such a policy. Reviewing some of these obstacles may help policy advocates overcome them.

Lack of Clarity about What “National Energy Policy” Means, and how to Get it Done

Defining what we mean by National Energy Policy is a preliminary hurdle – the term means different things to different people, and is regularly bandied about without definition. To some, it’s a simple overarching guideline; to others it’s a 2,700-page dysfunctional legislative monstrosity that attempts to please everyone while empowering the government. Being purposeful and clear on what is meant by “national energy policy” is a good first step. It shouldn’t be confused with an “energy agenda” or “energy subsidies and incentives.” Keeping it simple is a key to successfully establishing a policy that is effective, readily communicated, widely accepted, and followed. If the policy is too complicated, or attempts to micromanage all matters energy, or is merely a smoke screen for political patronage or the dispensation of government largesse to interest groups, it won’t work. Congress has a terrible propensity for making the simple complicated and dysfunctional. A hurdle is overcoming this aspect of our political process.

"Environmental stewardship doesn't happen by establishing more and more regulations and restrictions that nobody can get through," he said. "It's deploying the amazing new technologies that all of you are working on and developing every day, that not only will produce more energy, more cost-effectively, more dependably, but we will do it with better environmental stewardship."

*North Dakota Senator
John Hoeven*

A related issue that needs clarity is “who establishes such a policy?” Is it the EPA, the President, Congress ... or anonymous bureaucrats or policy wonks in shuttered rooms? What does it take to become a national policy? Who are the various parties that must be persuaded, and who must show their consent or support? Does it require an act of Congress, or an Executive Order, or a regulatory pronouncement? What form must the policy take in order to actually accomplish its mission? Answering these questions up front will help leaders properly chart a course to policy success.

Establishing a road map to securing a national policy is an essential step that requires clarity and determination. This requires definition of the actions that must be taken before a national policy can be realized, and definition of the nature of the process (an open, public dialog, or brokered back-room deals). How can we ensure that the policy can be relied upon, offers predictability, and is not subject to whimsical change? Half the problem with government policy is that it never stops changing, which wipes out predictability; without predictability charting a course and making progress is very tough.

One step that seems essential is establishing policy elements and objectives that are *long term* in nature. Policy advocates and leaders must then actively and deliberately (systematically) educate the public and the stakeholders affected by the proposed policy and marshal significant public and industry support for the policy’s essential elements and objectives.

Varied Interests want a National Policy to Advance their Ideological Position.

Another hurdle that stands in the path of establishing a viable, useful national energy policy is very basic. Every form of energy faces its share of dissenters. This makes developing a universally accepted energy policy particularly challenging. Energy policy can be a highly controversial and polarizing topic, and it’s one of the most politicized issues; consequently, many in public office are unwilling to be bold and forthright or take a stand. They want to avoid ideological crossfire. They fear conflict.

Democrats and Republicans have starkly different (some would say “competing”) views on what energy “policy” should be, and those views are unduly affected by the need to serve constituencies. The competing interests (those who want to protect the environment vs. those who want to tap nature’s hydrocarbon bounty) are a barrier. How do we get past this difference? Is it a political difference or a substantive difference? We must get past it in order to have a true national energy policy.

Those in positions of power and high profile must be persuaded to step up and accept the responsibility of advocating for a policy that is wise, even though the policy may not please everyone and may pose some risk to the advocate’s own comfort zone.

An Absence of Leadership

Many competing interests clamor for energy policy that addresses *particular* interests or needs. Policy wonks talk and write about particular energy issues all day long, but their ideas don’t get any traction because they don’t have a loud enough voice, and they’re often focused on minutia (in the policy weeds). Fashioning and implementing a solid national energy policy requires real leadership and real courage, and the ability to cut through these varied agendas and wonkish details to see the big-picture, long-term fundamentals. Leadership on this must have the fortitude and tenacity to resist allowing the policy to devolve into a series of government handouts designed to serve these many individual interests.

It’s bigger than patting a few special interests on the head, and no one doubts that getting it done is a major

challenge. This begs the question: who will lead? Leadership in this area has, historically, been absent and this makes it difficult to accomplish.

Presidents since FDR have declared their intention to solve the nation's energy problems and have attempted to do so through energy policy prescriptions, programs, mandates, regulations, and the expenditure of enormous amounts of money. Presidents since Nixon have declared their intention to get the U.S. to "energy independence." They have been very ineffective for the most part, and usually end up just serving various energy agendas. They also haven't focused on promoting the private sector's energy production capabilities, or maximizing the intelligent use of domestic resources; worse, the expansion of some energy opportunities always seems to come at the expense of other energy opportunities. When policy tries to advance a technology it substitutes some unaccountable committee's *preferences* for the market's uniquely prescient judgment about what works – and it's always a losing proposition for taxpayers. Energy policies have generally attempted to restrict or control private action rather than freeing it. None of these past energy policies have improved energy supply, delivery or consumption in meaningful, lasting ways.

Leadership on this issue in our time is much bigger than a president's patronizing talking points, or pet projects. It must be *far* more than a policy mechanism designed to get votes. This time it's about the very serious matter of our country's economic future and national security – and the essential role energy plays in securing these things now and for posterity. We're at a crossroads.

The energy and technology needed for both energy independence and energy security *are* here in the United States. All that's missing is the political will to unleash the free market and state autonomy. The U.S. government has persisted in not owning up to the truth about the potential of our domestic energy resources. We are *rich* in energy resources, and disabled by policies that don't permit us to access them. This is where political will comes in.

On August 23, 2012 Mitt Romney's presidential campaign unveiled a [white paper](#) detailing its national energy plan. This thoughtful document offers ideas for a serious energy-policy debate and focuses on developing all available energy resources and technologies. It takes a careful look at the facts, keeps things fairly simple, and advocates localizing regulatory aspects of energy development (empowering states). President Obama has advanced a rather [different energy policy posture](#), focused heavily on "investing" in green energy technologies, ending reliance on oil, conservation, mandates and standards, while also recognizing that oil and gas development must continue. There is a dramatic difference in focus between these two visions: one is centered on extensive government involvement in energy issues and controlling behavior; the other is centered on the liberating the states, the private sector and the private market.

Regardless of who is President, advocates for energy abundance and energy security will still have quite a job on their hands to educate and lead members of Congress and the public, help them to recognize what elements of these two visions will work (and the aspects of today's policy that don't work), and secure their support for unleashing the forces that will actually enable real movement toward energy independence, and toward changing today's damaging policies.

Leadership must come from the energy industry, the political class, the scientific and technology communities and others with the knowledge and experience to understand the stakes and implications of a comprehensive, long-term national energy policy. Non-partisan organizations like the National Energy Policy Institute, and think tanks like the Heritage Foundation, have made great contributions to the energy policy dialog, and could play a meaningful leadership role in informing the public and political leaders. An organized leadership effort by the governors and industry associations throughout the nation who understand the need for and urgency of a national energy policy would go a long way toward seeing such a policy materialize.

Where should this “Policy” Originate?

Many very intelligent members of our political and industrial communities realize the importance of, and advocate for, a national energy policy. But, triggering a viable process designed to develop and implement such a policy has proven elusive.

Who has the authority to define and implement such a broad policy? While the Federal Government is the logical party to declare and implement a national policy in a binding way, leaving the process to Congress or regulators may be insufficient to the task. Leaving it to Congress also ensures that the policy outcome will be too complicated to succeed. Most would agree that U.S. taxpayers don't need another package of endless special-interest gifts from congressmen seeking votes.

Is this a policy of government, or a policy of the private sector, or a policy of the energy sector, or a policy of the environmentalists? All of these groups have their own idea of what energy policy should be about ... it's about fulfilling their own respective agendas. Getting these disparate groups and their conflicting agendas into alignment won't be easy.

While it is congress that *should* be leading on this and designing it and implementing it, expecting Congress to do so may be somewhat ambitious. Is it realistic to expect anything to happen this way in Congress? Probably not.

But it has to start somewhere. So who's going to do it? Leaders in and outside of Congress can begin defining the elements of a national energy policy through a deliberate, focused, and open dialog. Such a coalition of determined leaders, starting with industry CEOs, could establish a forum for such a policy development process, engage the public in the dialog, and educate Americans about its purpose and merits – Mitt Romney has already developed a useful starting point and framework for the dialog with his 2012 energy [white paper](#). In this way, perhaps a consensus would emerge, which in turn could lead to sensible action in Congress supported by the Executive Branch.

Leaving it up to Congress, and waiting for them to act, ensures that a high-value national policy will never exist. Congress has proven itself wholly incapable of rising above the vested interests screaming in their ears. Nonetheless, Federal leadership is very important and should be sought.

Coming to Agreement on Common Broad Objectives.

Another hurdle is getting past the notion that everyone must agree on every aspect of the national policy. Start with one plank. The agendas and wish lists have to be set aside and focus must be on “what are we all here for, really? What's really most important, that we can agree on?”

Agreement on basic principles is a good starting point. For example, it is likely that agreement can be reached on these points:

- Ensuring access to abundant affordable energy is essential to sustain our economic growth, our standard of living, and our national security.
- Energy policy should be technology neutral, promote price transparency, and leverage private-sector investment.

Facts vs. Ideology

The insufficient dissemination of facts about our natural resources and the safe technology to recover those resources fosters an uninformed conventional wisdom. Many in the U.S. are generally ignorant of the profound and dramatic *economic* benefits, and safety, of increasing hydrocarbon production, and the limitations of “green” renewables. These are barriers to a sound national policy.

We will never have broad cross-factional support for a sensible, comprehensive domestic energy policy until realism and fact can overcome ideology and fiction (utopianism) in the public mind. Unfortunately, that's not likely to happen in the foreseeable future without a concerted educational campaign.

It is a fact that America cannot provide for all of its future energy needs through renewables, efficiency, and conservation (despite their obvious value and utility). Getting many in the U.S. to admit these things is a big hurdle. While it's also a fact that renewables play a meaningful and growing role in our energy future, they simply can't meet the country's vast energy needs at an affordable price, at least not today. Solar and wind only provide 1% of our energy needs today; and, according to the U.S. Energy Information Administration's Annual Energy Outlook projections, solar and wind are not likely to provide more than 3% of U.S. energy needs by 2035, without major technological breakthroughs.²⁹

The Executive Branch and many in Congress are held hostage to the "anti-carbon, anti-nuclear" environmentalists who aren't swayed by the fact that natural gas emits 50 percent less greenhouse gas than coal and that nuclear energy has a zero carbon footprint. This is a hurdle.

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

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.

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. It's time for government to admit that directing energy technology development is simply not in its wheelhouse.

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.

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). 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.

What are the Consequences of not having a Coherent National Energy Policy?

Those who control their energy, control their future. If we fail to develop and implement a coherent, productive national energy policy, we lose as a nation and we give up the jobs, money and environmental management opportunity now within our grasp. Our energy-rich neighbors will sell their North American resources to China and other lucrative Asian markets, rather than the U.S. We won't sell our energy resources to anyone, including ourselves.

Continuing down our current path of energy-policy confusion is a clear and foreseeable strategic blunder with grave long-term economic and security consequences.

If the United States, and each state, continue to fail to establish a sound energy-production strategy, we will surrender to foreigners control of the energy realm, and when that happens we become energy victims *unable* to control our own economic destiny.

What can be done to Ensure that the United States has a National Energy Policy that Works?

The United States is at an historic crossroads. Thanks to shale development and dramatic advances in technology, our nation has far more recoverable oil and natural gas resources than we could have even conceived of a few short years ago. The United States can and should become a real leader on the world energy stage, right now. To do so, our industry leaders and elected officials must:

- Recognize the historic energy and economic opportunities we face.
- Learn the facts.
- Educate the public.
- Advocate common-sense reality over ideology, and facts over fear.
- Refine their statesmanship skills.
- Get the right people in a room (as often as necessary) to discuss the subject and stimulate action.
- Lead.

They'll then be capable of shepherding a coherent and effective national energy policy into reality, one that actually advances the nation's critical economic and strategic interests and diffuses or overcomes competing ideological differences. It's time.

NEI intends to support and expand a vibrant and national interest and dialogue, open to all interests and perspectives, on the subject of energy production and the importance of wise, effective energy policies.

Please join this important national conversation. Visit the Nemaacolin Energy Institute website for more information about its energy-related activities and forums:

<http://www.neienergy.org/home.htm>



The Nemaacolin Energy Institute (NEI) is a not-for-profit and nonpartisan policy advocacy organization comprised of North American enterprises that are important producers, transporters and consumers of energy, those that focus on energy development and those who are interested in energy policy. NEI believes that energy is a strategic component to American prosperity, and that the best way to strengthen the energy sector's contribution to our society is through collaborative action among energy producers, distributors and consumers.



Endnotes

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