

Resolved: The College Debate Community Should Debate Energy
Topic Proposal Paper for the 2012-2013 CEDA Topic Controversy Ballot

Submitted by:

Ana Nikolic
Policy Resolution Group at Bracewell & Giuliani

Dylan Quigley
Dartmouth University

With special thanks to two true experts in the subject matter:

Scott Segal
Founding Partner
Policy Resolution Group at Bracewell & Giuliani

Josh Zive
Senior Counsel
Policy Resolution Group at Bracewell & Giuliani

Table of Contents

Introduction: Reasons the Debate Community Should Debate Energy	3
Mainstream Options for Policy Change	9
Potential Affirmatives	14
Solvency Advocates	14
Natural Gas	14
Oil	17
Coal.....	22
Nuclear.....	27
Renewables	30
Wind	32
Solar	34
Biofuels.....	36
Potential Critical Ground.....	37
Potential Negative Ground	45
Directions for Wording Papers	48
Response to likely Questions, Comments, and Concerns:	57

Introduction: Reasons the Debate Community Should Debate Energy

“Most analysts agree that for a variety of reasons (growing global demand, concentration of resources, limited access and governance challenges, infrastructure needs, balance of payments outflows, changing geopolitical alliances, and security considerations) the current energy system is simply unsustainable.”

- Frank A. Verrastro, senior vice president and director of the Energy and National Security Program at CSIS

Since the last time we have debated energy, a fundamental “game change” has occurred in the domestic energy industry. The development of domestic shale deposits through technological innovation has revolutionized the domestic energy sector and fundamentally changed the debate about energy in this country. Electricity generation has always taken a second seat to discussions over gas prices, but we have come to a point where the real and significant effects natural gas will have on our energy security, the economy, international relations, the environment, and local politics are worthy of debate. The discovery of vast, newly accessible shale deposits has changed the discussion about our energy future in a way that has not yet been approached by the debate community. As politicians confront this issue in D.C. and try to create a path away from coal and petroleum through natural gas, our shale resources are key to accomplishing this goal. How to maximize the benefits of the cutting edge technology of hydraulic fracturing and horizontal drilling while minimizing the harms to local communities and the environment are real debates occurring in Washington that the debate community should engage.

With gas prices holding out at just short of 4 dollars per gallon, there has been no shortage of discussion in the media and among academics as to how best address our nation’s energy future. Many point to events unfolding in the Middle East and unregulated oil speculation as causes of current high prices. Others cite failed Obama administration policies,

including failure to approve the Keystone XL pipeline and opposition to drilling in the Alaska National Wildlife Refuge. While polls show two thirds of Americans do not blame the President for rising gas prices, two thirds disapprove of his handling of the issue.

Regardless of where the “blame” lies, there is an increased focus on the necessity of increasing domestic energy production. High gas prices have sparked a fierce debate and increasing urgency in the discussion of how best to ensure a stable and reliable supply of energy. Hydraulic fracturing has opened new possibilities for natural gas development that was unimaginable just a decade ago. Domestic energy production, both fossil fuel and renewable, is a challenge this country must face to ensure future energy, economic, and national security needs can be met.

Working with Scott Segal and Josh Zive in a government relations practice focused on contemporary energy and environmental issues, I get the benefit of researching these issues on a daily basis. In order for the debate community to share these same benefits, we propose the following 2012-13 college debate topic: **Resolved: The United States Federal Government should establish a policy substantially increasing the production and / or use of domestic energy resources for transportation and / or electricity generation.** More discussion on wording and the mechanism will follow in the relevant sections.

Timeliness

There are undeniable trends occurring: increasing demand for energy with fewer suppliers of oil, increasing difficulty of producing and transporting energy, increasing volatility and uncertainty in markets, shifting geopolitical dynamics and challenges to existing international institutions. Climate change and its potential impacts can no longer be ignored. There are numerous challenges our country faces, and the overlap between meeting our nation’s

energy needs, protecting the environment, and ensuring economic growth provides ripe ground for debate.

Pumphrey, et al 2009 [David Pumphrey, Frank A. Verrastro, Sarah O. Ladislaw, Kathryn Zyla, Jonathan Pershing, Jenna Goodward, Britt Staley A Roadmap for a Secure, Low-Carbon Energy “Economy Managing Energy Security and Climate Change.” Center for Strategic International Studies. February 4, 2009. http://csis.org/files/media/csis/pubs/090204_energy_roadmap.pdf]

There is abundant evidence that the current energy system is unsustainable. Prices are volatile, supplies tight, and security threats – from supply disruptions to geopolitical tension – have become commonplace. The expected environmental and social costs of climate change – sea-level rise, water scarcity, reduced food supplies, and damaged ecosystems – are rising. At the same time, the country is facing an economic crisis that strains public and private budgets, but also raises opportunities to stimulate the economy while building a cleaner and more reliable energy infrastructure in the process.

The community just exited a topic where Professors, parents and administrators immediately “got” why we were debating the timely subject matter at hand. That is not the sole reason to select a topic – but “being topical” has positive externalities ranging from the quality of our research papers to bolstering the rationale for the activity’s continued support on a campus. Energy independence, gas prices, and domestic production all are hot-button issues – and we may be facing an era where this country is less presumptively-green than once imagined:

McCombs ’12 (McCombs Today is a publication of the University of Texas-Austin’s McCombs Schools of Business – April 10th – The University of Texas at Austin Energy Poll reflects the views of 2,371 Americans surveyed during March 5-16, 2012. The data were weighted using U.S. Census Bureau figures, as well as propensity scores, to ensure the sample’s composition reflects the actual U.S. population. <http://mccombstoday.org/2012/04/energy-poll-reveals-strong-support-for-more-domestic-production>)

Survey participants remain very concerned about the high cost of gasoline, with nearly 90 percent saying they expect prices at the pump to rise during the next six months, an expectation that is particularly strong among Republican voters. More than four out of five consumers also expect their total household energy expenditures to increase. “We see a significant trend of increased pricing concerns and more support for domestic energy production across the board in this survey,” said Wayne Hoyer, co-director of the survey and professor and marketing department chair at the McCombs School of Business. “While most respondents expect prices to continue rising, they’re also more optimistic about our energy future, perhaps because of the abundance of natural gas and other domestic energy resources. These trends will be interesting to watch as we head into this fall’s elections.” Despite intense media coverage of hydraulic fracturing, 62 percent of survey participants say they are unfamiliar with the practice or have

never heard of it. Of the 32 percent who are familiar with hydraulic fracturing, support outweighed opposition, 48 percent to 36 percent. When asked to describe how they feel about the regulation of hydraulic fracturing:

38 percent favor more regulation.

14 percent say the technology is already over-regulated.

22 percent think existing regulations are sufficient but need better enforcement.

16 percent believe existing regulation and enforcement are sufficient

Support for environmental issues declined from last fall's Energy Poll on virtually every measure. For example, asked to choose between economic growth or environmental protection, more consumers preferred growth; six months ago the responses were more evenly split. Significantly fewer consumers say they are willing to pay much higher prices to protect the environment, at 30 percent compared with 38 percent last fall. Half of the survey respondents say they are not environmentalists, while 37 percent describe themselves as "passive" and 8 percent as "active" environmentalists.

Unique Educational Opportunities - America's Energy Crossroads

In addition, and related to the issue of timeliness, is the agreement that America is facing an "energy crossroads." Our country is dependent on various sources of energy, and that need continues to grow. How we will meet those needs, grow the economy, and not destroy the environment at the same time is an important issue. This is particularly true in the area of natural gas, where decisions are being made over to how to balance the often competing interests of energy security and environmental preservation.

US DOE 2011 [Shale Gas Production Subcommittee 90-Day Report. August 18, 2011.

http://energy.gov/sites/prod/files/Final_90_day_Report.pdf]

Natural gas is a cornerstone of the U.S. economy, providing a quarter of the country's total energy. Owing to breakthroughs in technology, production from shale formations has gone from a negligible amount just a few years ago to being almost 30 percent of total U.S. natural gas production. This has brought lower prices, domestic jobs, and the prospect of enhanced national security due to the potential of substantial production growth. But the growth has also brought questions about whether both current and future production can be done in an environmentally sound fashion that meets the needs of public trust.

The president of the National Petrochemical & Refiners association, while obviously writing in support of his organization's agenda, notes the big decisions that need to be made regarding increased exploration and drilling of oil and natural gas resources.

Drevna 1/12/2012 [Charles T. Drevna, President, NPRA, National Petrochemical & Refiners Association. "INSIDE VIEW '12: America at energy crossroads"
<http://www.icis.com/Articles/2012/01/04/9520453/inside-view-12-america-at-energy-crossroads-npra.html>]

In his novel "A Tale of Two Cities," Charles Dickens wrote his famous line that "it was the best of times, it was the worst of times".

As we look ahead to 2012, we see America at the crossroads facing two paths to very different energy futures – a choice between the best of times and the worst. Results of the November 2012 elections for the presidency and Congress will play a key role in determining which path the nation will take in the years ahead.

One path would take America to a new era of prosperity – the best of times. Government would give companies that produce oil and natural gas and that manufacture fuels and petrochemicals the freedom they need to harness the proven, reliable and abundant energy resources under North America to meet the nation's needs, create jobs, and strengthen US economic and national security.

Following this path, the federal government would permit more exploration and drilling for oil and natural gas in many parts of the United States now off-limits to energy production. The president would allow construction of the Keystone XL pipeline to bring oil from America's close friend and neighbor Canada to US refineries, creating an estimated 85,000 new US jobs by 2020 and making America less reliant on oil from other parts of the world.

Under this "best of times" path, states and the federal government would also allow increased use of hydraulic fracturing, known as fracking, to sharply increase production of natural gas in America. States would abandon efforts to impose low carbon fuel standards that would raise energy costs for American families and businesses. The Environmental Protection Agency would use cost-benefit analyses to determine which environmental regulations are beneficial and which amount to overregulation that causes far more harm than good.

The second path – the "worst of times" for America's energy future – would take the US to an era of increased dependence on foreign energy and petrochemicals, increased unemployment, increased spending of taxpayer dollars to subsidize costly and inefficient new sources of energy and chemical raw materials, and decreased economic and national security.

The first path is based on a belief in economic growth created by increased American production of energy, fuels and petrochemicals.

The second path assumes energy is scarce and that producing oil and natural gas and using these substances as raw materials for refining and petrochemical manufacturing in America are harmful activities that should be curtailed.

It should be obvious to everyone that the first path makes more sense and is in America's national interest. But the well-organized and well-funded opponents of fossil fuels have succeeded in waging a decades-long misinformation campaign that has convinced many Americans that the second path is really the better choice.

At the same time, the future of renewable energy is at a crossroads. At the end of 2012 federal tax grants supporting renewable energy are sent to expire. A report by the Breakthrough Institute regarding the future of federal support for clean technology notes: "Federal clean tech

funding is now at a key inflection point however: absent Congressional action, annual clean tech support will be cut nearly in half from 2011 to 2012.”

Tried and True

Yes, we have debated energy before, and other sections of this paper will address the overlap with the previous high school topic. However, revisiting proven successful topics should be seen as a “pro” and not a “con.” The fact that the community has researched and debated energy before means we understand the extent of the quality, peer reviewed literature on this issue. In addition to being a “current” event and an area of increased national attention, energy has the additional benefit of having a well-developed literature base.

An energy topic guarantees in-depth debates on numerous, important issues such as global warming, oil prices and dependence, and energy security. The multiple stakeholders in this issue area ensure good debates and that the literature will not get stale. As Jad Mouawad at the New York Times notes, “with gasoline prices above \$4 a gallon, the nation’s energy resources remain a polarizing topic, pitting Republicans against Democrats, environmentalists against oil companies, and conservationists against advocates of unfettered drilling.” These power dynamics, while diverse, are not imbalanced: each side of the debate has access to the resources necessary (funding and staff) to produce well informed research on energy issues. The overwhelming support I’ve received from others while discussing whether or not to write this paper only goes to show that even though we have debated energy, there is ongoing support for debating this issue again.

Mainstream Options for Policy Change

The table below from the National Renewable Energy Laboratory of the U.S. Department of Energy provides a list of “policy mechanisms” in different recommended energy plans submitted for consideration by the Obama administration and Congress. The table draws distinctions between mechanisms for the purposes of topicality and for defining potential negative counterplan ground.

Logan & James ‘9 Jeffrey Logan is a member of the Market and Policy Impact Analysis Group in the Strategic Energy Analysis Center and is a Senior Energy Analyst with NERL – Ted James is a member of the Technology Systems and Sustainability Analysis Group in the Strategic Energy Analysis Center. **TITLE AND SUBTITLE A Comparative Review of a Dozen National Energy Plans: Focus on Renewable and Efficient Energy** – This report was prepared as an account of work sponsored by an agency of the United States government.

<http://www.nrel.gov/docs/fy09osti/45046.pdf>

Table 5. Examples of Policy Mechanisms Proposed in Energy Plans
(see Appendix C for a more complete list of Policy Recommendations)

<u>Issue</u>	<u>Policy</u>	<u>Select Examples of Policy Recommendations</u>
Job Creation		
	Promote green workforce training initiatives	<ul style="list-style-type: none"> • Congress should fully fund the America COMPETES Act (Commerce). • The federal government should create a Clean Energy Jobs Corp to promote “green collar” jobs (CAP).
Carbon Emissions		
	Raise the priority of national energy and climate strategy	<ul style="list-style-type: none"> • Create a White House National Energy Council to lead all other agencies in making energy and global climate change a top administration priority (CAP).
	Reduce carbon emissions	<ul style="list-style-type: none"> • Implement an economy-wide, cap-and-trade program to reduce GHG emissions 80% below 1990 levels by 2050. Auction carbon permits and use the generated revenues to invest in clean energy (Green).
***Fossil and Nuclear Energy		
	Expand domestic fossil energy production	<ul style="list-style-type: none"> • Increase access to resources on the outer continental shelf, with environmental protections (SAFE). • Enact "use it or lose it" approach to existing oil leases (NEA).

Accelerate commercial use of carbon-reduction technologies

- EPA should establish new source performance standards (NSPS) for coal-fired power plants consistent with the use of integrated gasification combined-cycle (IGCC) technology (Justinian).
- Congress should enact a new tax credit to retrofit existing coal-fired power plants – including those of less than 400 MW (Commerce).

Reduce or eliminate fossil energy subsidies

- Create an Energy Subsidies Commission, operated analogously to the Defense Base Closure and Realignment Commission (BRAC), to prioritize energy subsidy reform (Justinian).

Safer nuclear energy use

- Suspend Yucca Mountain nuclear waste repository program and develop secure on-site storage (Green).

Enhance use of the strategic petroleum reserve (SPR)

- Release petroleum products tactically to address high oil prices. (NEA).

Renewable Energy

Spur renewable energy R&D and commercialization

- Create a National Energy Innovation Fund to fund demonstration projects with others (Apollo).
- Direct the secretaries of Treasury and Energy to propose legislation to establish a \$200 billion National Clean Energy Bank to provide long-term financing for breakthrough EERE technologies (Compete).

Spur renewable energy markets and installations

- Establish a 25% federal renewable portfolio standard (RPS) by 2025 (NEA).
- Direct the Federal Energy Regulatory Commission (FERC) to set national interconnection standards for an interoperable grid and transmission system capable of connecting multiple new energy sources and devices (Compete).

Energy Efficiency

Reduce electricity demands from buildings

- Prioritize block grants to states/regions where utilities “decouple” electricity regulation (NEA).
- Congress should establish targets for the residential and commercial model energy building codes to increase EE savings by at least 30% by 2010 and 50% by 2020 (EEI+).

Increase fuel economy and diversify vehicle fleet

- Consider mechanisms such as “feebates” consumer and manufacturing incentives, and cash incentives or vouchers to accelerate conventional vehicle turnover (Google).

Grid Infrastructure

Advance smart grid

- Require FERC to modify rates of return on investments to modernize the electrical grid (Apollo).

Expand transmission capacity

- Modify DOE's existing authority under Section 216(h) of the Federal Power Act, designating DOE as the lead agency to coordinate permits required for interstate transmission (within two years) (Commerce).

The “North American Energy Inventory,” published by the Institute for Energy

Research’s, notes that the United States “possesses greater recoverable supplies of oil, natural gas and coal than at any point in its recorded history.” A brief summary of the report by the

Institutes President is below:

Pyle 13/31/2011 [Thomas J. Pyle is the president of the Institute for Energy Research. U.S. holds up domestic energy production: Thomas J. Pyle.

http://www.cleveland.com/opinion/index.ssf/2011/12/us_holds_up_domestic_energy_pr.html]

The price of oil rose as high as 3.6 percent on world markets in mid-December, triggered in large measure by Iranian military exercises in the Strait of Hormuz. The market tends to get jittery whenever the flow of oil in that region is potentially disrupted. While seemingly insignificant, the incident underscores just how fragile the global oil market can be and how America's current energy priorities are unnecessarily contributing to the problem.

Unfortunately, our national leaders have made us unnecessarily susceptible to these foreign shows of muscle. The truth is, America has no energy shortage. As the "North American Energy Inventory" released last month by the Institute for Energy Research documents, America possesses energy resources sufficiently vast to power our nation for generations to come.

Take oil, for example. With no less than 1.79 trillion barrels of proven reserves available in North America, we can put gas in every passenger car in the United States for the next 30 years. Iran and the other OPEC nations combined only have half that amount.

But it's not Iran or any other hostile nation that's standing in the way of oil production. Rather, it's the federal government that's holding up production. After President Barack Obama's deep water drilling moratorium ended, at least on paper, officials continued to slow walk offshore drilling applications. On shore, the administration has rescinded previously approved permits for drilling on public lands and has made the process more difficult and expensive.

As for natural gas, North America has at least 4.244 quadrillion cubic feet of recoverable resources, and new advances in drilling technology now put that energy within reach. That's enough to heat homes in the United States for the next 857 years. That much natural gas can supply the United States with electricity for 575 years at our current consumption level. But again, the administration is threatening to overstep states, imposing new restrictions and regulations on natural gas production despite overwhelming public support for increased production. According to a new Deloitte LLP poll, 83 percent of Americans agree that the safe and responsible domestic development of natural gas can create jobs and stimulate economic growth.

And when it comes to coal -- which supplies the greatest portion of our electricity needs -- North America is abundantly blessed. With more than 497 billion short tons, we have enough coal to take care of our electricity needs for at least the next 500 years. But federal regulations imposed on coal production continue to mount, and the Environmental Protection Agency's latest rules threaten to shut down nearly 10 percent of our coal energy capacity, or enough to completely black out the entire state of North Carolina.

Bad policies and draconian regulations present the greatest threat to America's energy security. Under our feet, Americans are blessed with an energy supply that is the envy of the entire world. But Washington is denying access to those resources, which is hurting the economy and weakening our global position.

Additionally, as partisan as the issue of energy has become in today's political climate, even Democratic Senator Bill Nelson (FL) understand the necessity of producing more energy at home.

Nelson 4/15/2012 [Sen. Bill Nelson (D-Fla.) serves on the Senate committees on Budget; Finance; and Commerce, Science and Transportation; Intelligence; and the Special Committee on Aging. "Breaking the foreign-oil habit" Politico
<http://www.politico.com/news/stories/0412/75151.html#ixzz1scHlZZ7>]

Still, even if oil speculators and international unrest weren't playing havoc with market prices right now, we'd be in trouble. The only way America can get off foreign oil and not fall victim to outside forces in the market is to continue to produce more energy here at home — and eventually alternative fuels.

We're not self-sufficient, and we need to be. It's a matter of national security.

Many people, including some of my fellow lawmakers, claim we've just got to "drill, baby, drill." Well, that sounds great, but it doesn't get at the heart of the problem.

Millions of acres around the country have been leased to oil companies by the government, but they aren't being used. In the Gulf of Mexico, for example, oil companies lease more than 31 million acres but for some reason are producing oil on less than 6 million of them.

Some lawmakers are trying to use oil from Canada as a partisan political chip in this story. But what they don't tell you is we don't require oil from Canada to be kept in our domestic supply and not sold to foreign countries.

To lower gas prices, we need to keep increasing existing domestic oil, keep increasing fuel-efficiency standards and crack down on oil speculators who drive up the price of oil. We can

even help balance our budget by ending the billions in special tax breaks that big oil companies receive.

It's also time to use available technology to make alternative and renewable energy an everyday part of our lives. We have the ability to create an energy culture that doesn't depend on foreign oil.

Potential Affirmatives

I cannot even come close to providing an exhaustive list of potential advantages affirmatives can claim. But in addition to there being *many* advantages these are also *good* advantages with a strong literature base at both the internal link and impact level, which is something that affirmative teams will appreciate. The list includes:

- Warming
- Pollution
- Energy Security/Dependence – Terrorism, Rouge States
- Oil Prices
- Electricity Prices
- International Trade/Exports
- Economy
- Industry Specific: Chemical, Refining, Manufacturing
- Soft Power/Hegemony
- Relations: China, Russia, India, OPEC

Solvency Advocates

The following section, while not exhaustive of all energy types and all solvency mechanisms, provides a sampling of stable mechanism options affirmative teams will have. In the “Direction for Wording papers” section I will discuss options for narrowing down the types of energy sources that could be included in the resolution.

Natural Gas

Natural gas development has brought about one of the most significant breakthroughs in the history of the American energy sector. Previously inaccessible shale rock resources have been made accessible through the development of hydraulic fracturing and horizontal drilling techniques. The controversy around the relatively new process of “fracking” pits many competing interest holders against each other. The processes has been touted by the administration as the best path forward for clean and affordable energy given the abundant

reserves our nation has. At the same time, the administration has been trying to balance increased calls for regulation of the industry from environmental advocates.

While significant shale gas development already exists in this country, numerous opportunities exist for expansion.

Frank, et al. 2009 [Matthew Frank, Jenna Goodward, Sarah Ladislaw, and Kate Zyla “Crossing the Natural Gas Bridge. May 2009

http://csis.org/files/publication/090626_final_crossing_gas_bridge.pdf]

Pursue an efficient and environmentally sensitive natural gas development strategy: Improving and maintaining energy security will necessitate the development of domestic and international natural gas resources in order to ensure supplies, mitigate prices, and temper dependence on imports. U.S. natural gas production is projected to flatten over the next several decades, but there remains significant potential to develop untapped unconventional, Alaskan, and offshore natural gas resources, which present an important opportunity to bolster energy security. It is imperative, however, that policymakers and companies pursue development of natural gas resources in ways that do not negatively affect the environment.

Congress recently debated the “New Alternative Transportation to Give Americans Solutions”, or the “Nat Gas,” Act. This bill, and potential affirmative solvency mechanism, would have provided incentives to accelerate the use of natural gas as a transportation fuel. This evidence also outlines competing interests in the debate.

Dicker 3/13/2012 [Daniel, Oil trader; CNBC Contributor and TheStreet.com columnist; Author, 'Oil's Endless Bid'. “Time to Pass the Natural Gas Bill” http://www.huffingtonpost.com/daniel-dicker/time-to-pass-the-natural-_b_1343080.html]

Have you had enough of paying \$4 a gallon for gas? Do you wonder what you're going to do if gas prices go to \$5 a gallon this summer? You're not alone.

Gas prices affect everyone, regardless of race, color or political party, yet Washington is stuck in neutral in finding the solution, which is staring them straight in the face: natural gas.

It's time for U.S. to take responsibility and force Washington to act. Today, the natural gas bill, which would add about \$3.4 billion in incentives to kick start the movement to natural gas as a transport fuel is expected to be voted down as an addition to the highway funding bill, the last reasonable moment in this election year in which this bill it has even the slightest chance of passage.

Take matters into your own hands. Call your congressman and demand that this bill be passed for the sake of jobs, the economy and your wallet.

It is at least politically clear why this bill is such a difficult one to get approved. Republican fiscal conservatives are opposed to new federal spending and are sensitive to oil interests in their home states. They view this bill as anti-free market, an example of government looking to "pick winners."

Democrats are opposed to any measure that would encourage environmentally sensitive hydraulic fracturing for natural gas from shale. Between the two, despite being a virtual no-brainer, two iterations of the original "Pickens" bill have failed and so likely will this latest rewritten 'Natural gas act.'

Why should it? Natural gas is greener than oil, plentiful, domestic and cheap. As gas prices today rose over \$3.83 as a national average, the equivalent cost of a "gallon" of natural gas is \$1.60. Most analysts expect domestic prices for natural gas to stay relatively low for years, perhaps decades to come, while oil price is at the whim of every Middle East conflict, emerging market competition for resources and decreasing global production.

The oil and gas industry is ready for this. Last week's CERA conference -- the yearly global energy get-together of all the majors -- could have easily been renamed the natural gas conference. Apache CEO Steve Farris claimed that U.S. supply of natural gas isn't the claimed 100 years, it is more like 200 years.

Shell CEO Peter Voser spoke about investment in a new U.S. gas-to-liquids plant and the prospects of LNG exports. At one point, moderator and energy guru Daniel Yergin interrupted Voser to ask sarcastically: "You still produce oil too, don't you?" The industry also indicated universally that they are willing to submit to any transparency request that environmentalists or Washington suggest in order to continue the U.S. shale revolution.

The industry is on board, it's time for the people to get on board, too. Let's call this grassroots effort the "energy independence coalition." Or, how about the "energy sanity group." That's the only way to describe what we're doing -- or actually not doing -- with our plentiful national resource of natural gas. We're flaring -- actually burning off natural gas instead of using it to get at more expensive oil resources in the Bakken and elsewhere. That's not sane -- it's just nuts.

In response to the Nat Gas Act, Senator Inhofe (R-OK) introduced another bill to encourage the development and use of compressed natural gas as a transportation fuel. His bill, and another potential affirmative reduced regulatory barriers preventing the market entry of natural gas vehicles.

EPW Blog 3/12/2012 [Senate Environment and Public Works Blog, "Inhofe Working to Move CNG Legislation Through Congress" <http://www.canadafreepress.com/index.php/article/45220>] Washington, D.C. - Senator James Inhofe (R-OK), Ranking Member of the Senate Committee on Environment and Public Works, today voted against the Natural Gas Act amendment to the Boxer-Inhofe highway bill, which was offered by Senators Robert Menendez (D-NJ) and Richard Burr (R-NC). With this amendment defeated, Senator Inhofe will introduce S.2174, a bill that will help incentivize Natural Gas Vehicles (NGVs) without taxpayer subsidies.

"I have been one of the most vocal supporters of natural gas vehicles (NGVs) in the U.S. Senate, but the Natural Gas Act amendment brought forward today is simply a political measure Democrats will use to appear to support natural gas, while President Obama and his green team wage an all-out war on hydraulic fracturing," Senator Inhofe said.

"This amendment may incentivize NGVs but it does so at an enormous cost: it taxes natural gas at the pump in order to pay for subsidies of up to \$64,000 to buyers of NGVs, up to \$100,000 for refueling stations, and \$200 million for the production of vehicles. The taxpayer could be on the

hook for billions, but we don't know the full extent of the cost because this bill has not yet been scored by CBO or the Joint Committee on Taxation. The bottom line is that the promise of NGVs is strong on its own - it does not need taxpayer subsidies to thrive.

"In an effort to move a NGV bill through Congress, I am introducing S. 2174, which will help tear down regulatory barriers to the market entry of NGVs without government handouts. My bill will ensure that NGVs are given equal treatment with electric vehicles; that way they can get the appropriate credit under CAFE standards for their role in reducing foreign petroleum consumption. I look forward to working with my colleagues on both sides of the aisle to pass this bill, which will help create jobs and increase our energy security."

Oil

The options for debating oil include increased offshore and onshore drilling, including the Arctic National Wildlife Refuge. Another area of consideration is federal leasing, and adopting a "use it or lose it" approach to existing oil leases. It is undeniable that America will continue to rely on oil, even as we work to develop alternative sources of energy. Increasing domestic production in this area would provide for many affirmative options.

Stearns 4/15/2012 [Rep. Cliff Stearns chairman of the Oversight and Investigations Subcommittee of the House Energy and Commerce Committee, "Time to revamp energy development" Politico. <http://dyn.politico.com/printstory.cfm?uuid=915A75E2-D2FD-4E5C-894D-61FBA8E2DDE5>]

Projections of \$5-a-gallon gasoline this summer distress the American people. Rising gas prices further crimp family budgets and reduce economic activities. Every 10-cent increase costs American consumers \$11 billion.

A CBS News poll in February found that 67 percent of Americans say high gas prices have caused a financial hardship in their households, with 38 percent saying the hardship is serious. According to the U.S. Energy Information Administration, the price of crude oil accounts for about two-thirds of the cost of a gallon of gas. Most of the rest goes to taxes, refining, distribution and marketing.

Another major factor affecting crude oil prices in recent months has been uncertainties around supply stemming from tensions with Iran as new sanctions by the United States and the European Union take hold. Unrest in several small oil producers also has caused supply disruptions.

In addition, the recent closures of refineries in the U.S. contribute to higher prices, especially on the East Coast.

Finally, demand is growing for crude oil among the emerging economies and concerns over global supply.

It's clear that America needs an "all-of-the-above" approach to our energy ends: solar power, biomass, clean-coal technologies, wind, nuclear power, natural gas, conservation and renewable sources.

Still, our nation remains addicted to oil: The Department of Transportation reports more than 250 million vehicles in the U.S. overwhelmingly rely on gasoline or diesel fuel.

Amazing advancements in energy technologies are great for the nation but mean nothing to someone who needs to fill the car with gasoline. For decades, we will depend on gas and diesel for most of our transportation needs.

This dependence on imported oil is an economic burden and a national security threat. Increasing domestic production would create new jobs, raise the level of investments and enhance our national security.

President Barack Obama repeatedly proclaims that the U.S. possesses only 2 percent of the world's oil reserves. But he's using the outdated figure for "proven reserves," which means the data demonstrate with reasonable certainty the oil is recoverable from known reservoirs under existing economic and operating conditions.

Yet two agencies of the Department of the Interior report that undiscovered, technically recoverable oil stands at 160 billion barrels, on- and offshore.

As technology improves — and oil prices increase — more oil will become technically and economically recoverable. In addition, the U.S. Geological Survey further estimates that the Bakken Formation, spanning North Dakota and Montana, contains up to 4.3 billion barrels of technically recoverable oil.

We have the energy resources to build a bridge to the energy supplies and technologies of the future; we just have to develop them. But first we must reverse the course on energy development set by the president.

According to a report from the nonpartisan EIA, the total sales of all fossil fuels produced on federal and Indian lands, measured in BTUs to allow for aggregation across all fossil fuels, rose by about 1 percent from fiscal years 2009 to 2010 and dropped by about 6 percent from 2010 to 2011. The same report notes that crude oil production decreased from 739 million barrels in 2010 to 646 million barrels in 2011.

Again, I advocate employing a broad approach to meeting our energy needs, but we must take some specific steps for increasing oil production and easing the pain at the pump.

America must increase its oil production in Alaska. Declining production on Alaska's North Slope threatens the efficiency and cost-effectiveness of the Trans-Alaska Pipeline, a vital conduit of domestic oil.

We also must increase offshore production, even though the president has placed the entire Pacific Coast, Atlantic Coast and the eastern Gulf of Mexico off-limits. Similarly, onshore production can increase our domestic supply of oil. However, regulations imposed by the Obama administration have significantly decreased onshore oil and natural gas production. Bureau of Land Management oil-and-gas leasing in the Rocky Mountain West (Colorado, New Mexico, Utah, Wyoming, Montana and North Dakota) has fallen by 67 percent since 2005.

In addition, we can increase the supply of oil coming from North America. The administration is stalling approval of the Keystone XL pipeline, which would create new American jobs while enhancing our energy and national security by bringing 700,000 barrels a day of Canadian oil to U.S. consumers.

All these steps will increase domestic production or increase the supply of oil from North America, providing an essential bridge until the energy source of the future can be developed and brought on line.

Options to expand domestic energy production in this area not only includes the “drill, baby, drill” strategy. Even the Obama administration understands oil will remain an important part of our nation’s energy mix, and one way to increase production includes looking into leasing for oil and gas development. The following evidence from the President’s “Blueprint For a Secure Energy Future” provides a potential solvency mechanism in this area.

White House 2011 [Blueprint For a Secure Energy Future. March 30, 2011.

http://www.whitehouse.gov/sites/default/files/blueprint_secure_energy_future.pdf]

The American taxpayer – owners of our Nation’s public lands – have a right to expect that companies given access to public lands for oil and gas development will develop the resources efficiently or step aside to allow other companies to do so. The Administration is evaluating potential changes to elements of the leasing process that will encourage timely development. These potential changes include:

Using Shorter Lease Terms to Encourage Rapid Development: Adopting shorter lease terms, particularly onshore, would provide industry with a built-in incentive to develop leases more rapidly. Adopting this approach would also trigger the earlier release of nonproducing leases, making them available to other companies who may be more willing or able to invest in their development. Offshore, the Administration has already implemented adjustments to lease terms for shallower waters. The terms of onshore leases, which currently are issued for standard 10-year terms, are constrained by a nearly century-old statute.

Rewarding Rapid Development with Lease Extensions. The Administration is taking a new approach to lease-extensions that rewards diligence by tying extensions more directly to lessee investment in exploration in development. For offshore leases, DOI has already begun to implement this new approach—for example, by requiring the spudding of a well before a lease extension is granted. DOI plans to build on recent reforms for both offshore and onshore leasing, so that when companies approach lease deadlines or apply for extensions, their record of demonstrating diligent exploration and development will help determine whether they should be able to continue using their leases, or whether those leases would be better utilized by others.

Rewarding Rapid Development through Rental Payments and Graduated Royalties:

Although the price of oil and gas provides the primary financial incentive for current leaseholders to move forward in diligently investing in their leases, different fee and royalty structures may promote more expedited development. For example, Texas has used a graduated royalty rate system to provide developers with a discounted royalty rate if production occurs in the earlier years of a lease. The FY 2012 Budget proposes initial steps to encourage more rapid development.

Critics of oil drilling point to the necessity of weaning ourselves off of fossil fuels, but despite massive investment in alternative energy and attempts to do so, 95% of our transportation fuel still comes from oil. Even as we transition to low-carbon fuels, we will need domestic oil

production to do so smoothly and without supply disruptions. Current alternatives to oil, such as oil shale and coal-to-liquid technology are greenhouse gas intensive. Oil could be the most environmentally friendly fuel source for the near future.

Pumphrey, et al 2009 [David Pumphrey, Frank A. Verrastro, Sarah O. Ladislaw, Kathryn Zyla, Jonathan Pershing, Jenna Woodward, Britt Staley A Roadmap for a Secure, Low-Carbon Energy “Economy Managing Energy Security and Climate Change.” Center for Strategic International Studies. February 4, 2009. http://csis.org/files/media/csis/pubs/090204_energy_roadmap.pdf] Support domestic oil production during the transition to low-carbon fuels.

Energy security concerns often produce calls for “energy independence,” an effort to reduce U.S. reliance on foreign sources of oil, especially those viewed as hostile to U.S. interests or politically unstable. While the recent economic crisis has dampened demand, over the past several decades U.S. dependence on imported oil has grown as the vehicle fleet has become heavier and larger, the average distance traveled per vehicle has increased, and domestic oil production has declined. A combination of two factors – surging domestic oil demand and reduced domestic production – creates potential conflicts between climate change and security goals: satisfying energy security concerns in a period of declining domestic oil production could lead the U.S. to support high-emission alternatives. This is a false choice – the opportunity to achieve both climate change and energy security goals ultimately lies in reduced reliance on oil as the dominant transport fuel. However, a transition away from oil as the primary transportation fuel will take time: oil currently makes up 95% of U.S. transportation fuels. A successful transition requires policymakers to avoid policies that jeopardize the current fuel system before a viable replacement is in place. Previous recommendations in this roadmap focus on increasing vehicle efficiency, improving land-use planning, and supporting a shift to an electrified transportation system. Coupling improved demand measures (for example, through improved vehicle efficiency, reduced VMT, and mass transit alternatives) and aggressive supply-side actions to promote alternative lowcarbon fuels with efforts to maintain domestic petroleum supply doubly enhances energy security.

Over the near term as we transition to a more sustainable energy system, a stable energy regime will require local resources to hedge against import-related risks. Expanded domestic production would increase U.S. and global energy security by increasing global supply, moderating prices, and reducing dependence on imports from a limited number of suppliers. To this end, in 2008 Congress moved forward with expanded domestic oil production to reduce the vulnerability of the U.S energy system to foreign interference and manipulation by suppliers.

Over the next decade or so, there are no supply alternatives able to replace liquid fuels at scale. And to the extent U.S. demand for oil continues, U.S.-sourced production comes with the most stringent environmental regulations and does not require long-distance tanker transport.

While energy security analysts have noted the near-term security benefits of unconventional sources of oil (many of which are abundant in the U.S. and western hemisphere), oil shale and coal-to-liquids production result in extremely high GHG emissions. The climate change impacts associated with such liquid fuel choices lead to a recommendation in this report against such options absent significant environmental improvement.

Recognizing the near-term energy security benefits of domestic oil production and the difficulties in making a quick transition to a low-carbon transport infrastructure, the administration should

support policies that improve the recovery rates and productivity of wells in areas open for production. Such policies can, during this transition period, help manage energy prices and avoid a shift to high-carbon non-conventional fuels. However, in determining production policies, decision makers should balance resource potential with environmental sensitivity. In all cases it will be essential to assure strong and comprehensive monitoring for human health and the environment as well as compliance with environmental law.

It will be critical that increased production not undermine other priorities to shift the transportation sector toward a more diversified and decidedly cleaner fuel mix and away from one dominated by petroleum-based fuels. Including domestic production as a recommendation is thus part of a package, not to be taken in isolation as a stand-alone proposal. Efforts to promote other technologies and fuels must be sustained. In the near term, as the world's third largest oil producer, it will be critical for the U.S. to combine domestic production with improved end-use efficiency and the promotion of low-carbon transportation choices. Doing so can enhance domestic security, reduce import dependence, and avoid a turn to high-carbon alternatives that will only make meeting climate change goals more challenging.

And, President Obama enjoys to make claims that domestic oil production has increased under his administration. To address those “uniqueness” questions, the follow article summarizes the “facts:” oil production on federal lands is decreasing, the administration has taken actions limiting leasing of land, less land is being leased then in the past, and while domestic crude production has increased, its only 0.3 barrels higher than in 2009.

Institute for Energy Research 1/20/2012 [Fact Checking President Obama's Claims About Domestic Energy Production. <http://www.instituteforenergyresearch.org/2012/01/20/fact-checking-president-obamas-claims-about-domestic-energy-production/>]

The Obama campaign just released a website that purports to provide “the facts of President Obama energy record.” This is an intentional effort by the Obama campaign to distort the President's abysmal energy record. After all, energy production on federal land is down under President Obama and the Obama campaign is trying their hardest to hide and obfuscate this basic fact.

Obama Claim: “Since President Obama took office, oil imports have been reduced by an average of 1.1 million barrels per day.”

Reality: A reduction of imports has happened without President Obama, not because of him. More than half of the reduction is because the ongoing recession and much higher price have made fuel so expensive that consumers are using less of it.

In January 2009, when President Obama was inaugurated, the U.S. produced 5,154,000 barrels of oil a day.[1] By November 2011, the last month for which we have data, the U.S. was producing 5,874,000 barrels of oil a day. This 700,000 barrel a day increase isn't happening on federal lands, for which President Obama would justifiably claim some credit, but on private and state lands.

[**Update** The following paragraph cites data from the Energy Information Administration (EIA). EIA subsequently discovered that the data they used for determining oil and natural gas

production numbers on federal lands were incorrect and they are working to fix the problem. The Department of Interior, which regulates energy production on federal lands, is working with EIA to develop a system that more adequately reflects production clearly, and we will update the oil and natural gas production charts when the federal government completes its coordination and updates its information.]

The reality is that oil production on federal lands is falling, while production on private and state lands is rising.[2] There is a long term trend of decreasing oil production on federal lands. In fact, oil production on federal lands has fallen by 43 percent over the past 9 years according to the Obama administration's Energy Information Administration.[3] And it has dropped rapidly on President Obama's watch.

In fact, because of the actions taken by the Obama administration such as severely limiting the offshore areas where oil can be produced, cancelling oil leases, and withdrawing other oil leases, oil production on federal lands will most likely continue to fall. (More of the Obama administration's anti-energy actions can be found here.)

Not only is the Obama administration making it more difficult to produce energy on federal lands, they are leasing much less lands than the past. The following chart shows the decline in leasing on onshore lands over the past 30 years. This lack of leasing on federal lands will only result in lower production on federal lands in the future.

Obama Claim: 2010 domestic crude oil production reached its highest levels since 2003.

Reality: This is true, but the average production per day for 2011 is only 0.3 million barrels per day higher than in 2009. And, as noted above, the reason that U.S. crude oil production is increasing is because of production on private and state lands while production on federal lands is decreasing. The President cannot honestly take credit for the production on private and state lands, but he can take partial credit for decreasing production on federal lands.

Coal

Discussions about “energy” often focus on issues like oil and gas prices. However, individuals and businesses are all dependent on energy in the form of electricity. Coal fired power currently accounts for 45 percent of United States electricity generation. Evidence cited above from Pyle at the Institute for Energy Research's indicates we have enough coal to meet our electricity needs for the next 500 years. The problem, and why this provides an interesting area for debate, is that current regulatory action by the EPA threatens to significantly decrease our domestic coal capacity.

ERCC [Electric Reliability Coordinating Council. <http://www.electricreliability.org/epa-rules-and-regulations>]

Because of the close proximity of their implementation, combined with the potential devastating impact, the following EPA Rules and Regulations have come to be known collectively as the "train wreck":

Utility MACT (Maximum Achievable Control Technology) Read ERCC Comments
The Clean Air Transport Rule (CSAPR), replacement for the Clean Air Interstate Rule;
Coal Combustion Residuals or By-products (CCRs) rules;
National Ambient Air Quality Standards (NAAQS) for SO₂, NO₂, Ozone, and PM;
Rules pertaining to control of global greenhouse gases;
New Source Review on new and modified sources for greenhouse gases and other emissions;
Section 316(b) rules regarding plant cooling water intake structures; and,
Effluent guidelines for electric utilities

These EPA Rules and Regulations will have a significant impact on the roughly 400,000 megawatts of oil- and coal-fired generation, which is about 40% of the current available capacity in the U.S., and makes up nearly 50% of total U.S. electricity generation. Adaption to all these rules, with Utility MACT being the most immediate threat, constitutes an extraordinary – and dangerous – challenge to the power sector.

Options for increasing domestic energy production include: developing coal to liquid technology.

Shannon 2011 [John Brian Shannon “Coal Gets Less Down and Dirty Coal-to-Liquid Technology is Environmental Step Forward (Huffington Post)” December 16, 2011 <http://www.americanfuelscoalition.com/2011/12/16/coal-to-liquid-technology-is-environmental-step-forward-huffington-post/>]

For decades, the coal industry has been the energy sector ‘bad boy’ as far as the environmental movement is concerned. The list of negatives associated with the extraction, transportation, and use of coal are long and well-publicized. Today, however, the coal industry is on the cusp of a revolution—owing in part to proven technology and with huge thanks due to the environmental movement.

What? You heard right. Because environmental groups railed against the coal industry for years, substantial research was devoted to extracting high-quality fuels and other products from coal and they have succeeded spectacularly.

Rather than use coal in the most egregious way possible by burning it and sending the entire problem up the chimney to land in the next state or country, it turns out that raw coal can be broken down into hundreds of high-quality, synthetic-oil products.

It merely requires the right process. Who knew?

Since the advent of high and sustained petroleum prices, a way forward for high-tech coal has existed.

A good example of this is coal-based diesel fuel derived from “Coal to Liquid” (CTL) technology which charts 100% lower sulfur content when compared to petroleum-based diesel fuel and in the case of carbon monoxide content up to 85% lower.

“Converting coal to a liquid fuel (CTL)—a process referred to as coal liquefaction – allows coal to be utilized as an alternative to oil. There are two different methods for converting coal into liquid fuels:

1) Direct liquefaction works by dissolving the coal in a solvent at high temperature and pressure. This process is highly efficient, but the liquid products require further refining to achieve high grade fuel characteristics.

2) Indirect liquefaction gasifies the coal to form a ‘syngas’ (a mixture of hydrogen and carbon monoxide). The syngas is then condensed over a catalyst—the ‘Fischer-Tropsch’ process—to produce high quality, ultra-clean products.

An array of products can be made via these processes – ultra-clean petroleum and diesel, as well as synthetic waxes, lubricants, chemical feedstocks, and alternative liquid fuels such as methanol and dimethyl ether (DME).” Source: Alliance for Synthetic Fuels in Europe

And here is a great working example of this technology:

“South Africa has been producing coal-derived fuels since 1955... Not only are CTL fuels used in cars and other vehicles, South Africa’s energy company Sasol CTL fuels also have approval to be utilized in commercial jets. Currently around 30% of the country’s gasoline and diesel needs are produced from indigenous coal. The total capacity of the South African CTL operations now stands in excess of 160,000 barrels per day.

CTL is particularly suited to countries that rely heavily on oil imports and that have large domestic reserves of coal. There are a number of CTL projects around the world at various stages of development. Liquid fuels from coal can be delivered from an existing pump at a filling station via existing distribution infrastructure and used, without modification, in the current vehicle fleet.” — World Coal Association

North America has the largest coal reserves in the world. To illustrate the full extent of coal reserves at present usage rates, coal would last North America for 118 years. That’s how much proven coal resource is lying on the surface or buried at reachable depths in our own continent. Added to that, new coalfields are still being discovered in North America.

Adopting such a plan wouldn’t lower total CO2 emissions significantly—as carbon dioxide is merely the by-product of any fossil-fuel combustion process. CO2 is here to stay and as far as consumers are concerned, only by employing conservation in our daily routines can we lessen our carbon dioxide footprint for the foreseeable future.

What switching to CTL will do however, is dramatically reduce toxic gases like sulfur dioxide, nitrous oxides, carbon monoxide, and other trace but highly toxic gases by switching to synthetic fuels derived from ultra-clean Coal To Liquid technology.

This equation is simple, use a clean fuel to get a clean burn.

Rather than allow an industry to decline on account of toxic fallout caused by burning dirty raw coal, why not transform the coal industry into the cleanest fuel provider on the continent? This is within the realm of possibility if we employ our best technology.

It is an environmental success story just waiting to occur. **What it will take for this to become reality is broad public support, commitment of environmental groups and dedicated legislators.**

The North American ‘Coal To Liquid’ industry could allow us to say goodbye to foreign oil and give us the ability to burn a clean, synthetic fuel in our vehicles and power plants.

Mechanisms for increasing the use of coal to liquid technology includes removing the Congressional ban on the Pentagon’s use of alternative fuels if they produce more carbon dioxide than conventional petroleum.

Institute for Energy Research 3/5/2012 [Coal: Not Part of the Obama “All-of-the-above” Strategy <http://www.canadafreepress.com/index.php/article/45056>]

U.S. Government and Coal-to-Liquids Technology

The U.S. Government promoted the development of coal-to-liquids technologies following the oil shocks of the 1970s, but shelved the projects in the 1980s when oil prices fell. In the current economic environment, with oil prices surpassing \$100 per barrel and generally projected to rise in the long term, coal-to-liquid technology could again become viable. According to a study by the National Energy Technology Laboratory (NETL), when the crude oil price is equal to or above \$86 per barrel, coal-to-liquid technology would be economic. The NETL study also indicates that adding carbon sequestration to the process is relatively inexpensive and would result in life cycle greenhouse gas emissions 5 to 12 percent less than petroleum based diesel.[iv] Other studies, however, do not agree with this lower estimate of emissions.

Currently, there is a Congressional ban on the Pentagon's use of alternative fuels if they produce more carbon dioxide than conventional petroleum. Because the life cycle greenhouse gas emissions from the coal-to-liquids fuel are believed to be larger than the greenhouse gas emissions from conventional petroleum, they are not pursuing our most abundant energy source. Thus, the U.S. Armed Services is banned from using synthetic fuels from coal to fuel their aircraft and other vehicles.[v] Instead, the U.S. Air Force and the U.S. Navy are experimenting with renewable biofuels that are extremely expensive and whose own "carbon footprint" may turn out to be more than conventional petroleum. Cost estimates are 10 to 40 times more than petroleum based aviation fuels.

Conclusion

While China is benefiting from a coal-to-liquids program, it is unlikely that the United States will do the same. Even though the United States has the world's largest coal reserves, the Obama administration's regulations and government policies concerning the military make a coal-to-liquids industry unlikely in the United States at the present time. The U.S. Energy Information Administration is projecting that some coal-to-liquid technology will be used in the United States, beginning with production this decade and reaching 280,000 barrels per day by 2035.[vi] However, that is a very small amount and unlikely to be competitive with China's programs.

Another option would be to increase development of clean coal technology. While this is not necessarily a direct increase in production of domestic energy from coal, it would increase the *use* of domestic coal by allowing coal fired plants to operate despite the stringent environmental regulations issued by the EPA.

Trisko 2009 [Eugene M. Trisko, Statement on behalf of the United Mine Workers of America, AFL-CIO Before the Committee on Environment and Public Works United States Senate. October 29, 2009]

http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=2e58d71f-afb1-484b-a45d-5ac0bc1b9b15

Early Demonstration of CCS is Essential

The capture and geological storage of CO₂ is the key to retaining domestic coal as a viable energy supply in the context of constrained U.S. greenhouse gas emissions. While various private and federal research programs are exploring the potential for carbon sequestration, a

secure and adequate funding source is not available to accelerate essential applied research, development and commercial scale demonstration of carbon capture and storage as a viable commercial option for existing and future coal-based energy providers.

The 2007 MIT report, *The Future of Coal*, cautioned that: “Today, and independent of whatever carbon constraints may be chosen, the priority objective with respect to coal should be the successful large-scale demonstration of the technical, economic, and environmental performance of the technologies that make up all of the major components of a large-scale integrated CCS system — capture, transportation and storage. Such demonstrations are a prerequisite for broad deployment at gigatonne scale in response to the adoption of a future carbon mitigation policy, as well as for easing the trade-off between restraining emissions from fossil resource use and meeting the world’s future energy needs.” (Id., at xi.)

MIT also concluded that current funding for advancing CCS was “completely inadequate”: At present government and private sector programs to implement on a timely basis the required large-scale integrated demonstrations to confirm the suitability of carbon sequestration are completely inadequate. If this deficiency is not remedied, the United States and other governments may find that they are prevented from implementing certain carbon control policies because the necessary work to regulate responsibly carbon sequestration has not been done. Thus, we believe high priority should be given to a program that will demonstrate CO₂ sequestration at a scale of 1 million tonnes CO₂ per year in several geologies. (Id., at xii.) More recently, an MIT Energy Initiative Symposium echoed the basic premises underlying Section 125’s provisions for an early CCS demonstration program with secure, non-budget funding: “The Federal government should dramatically expand the scale and scope for utility-scale commercial viability demonstration of advanced coal conversion plants with CO₂ capture. The program should specifically include demonstration of retrofit and rebuild options for existing coal power plants. New government management approaches with greater flexibility and new government funding approaches with greater certainty are a prerequisite for an effective program. ...

Such a strategy can be begun under the current DOE Clean Coal Power Initiative (CCPI) demonstration program, if it is expanded and has enhanced flexibility for speeding up the government process and for private sector project management and financial accounting. However, new legislation should be considered in parallel with the CCPI program solicitation and implementation. An expanded commercial viability utility-scale demonstration program should be established through a quasi-government corporation. The authorities of the new corporation should be designed with a broader mandate than that of the CCPI program, encompassing the full range of lowcarbon electricity technologies and fuels and financed from a multibillion dollar annual small electricity line charge (as has been under consideration in the Congress).”

Congress should heed these recommendations. CCS technologies are the only means for assuring that domestic coal can continue to supply a significant share of our electric generating needs in a carbon-constrained environment. As discussed below, the widespread deployment of CCS technologies also can provide a major source of new, well-paying low-carbon jobs involving a broad range of skills.

Below is additional evidence that government action can be taken to speed up and make the adoption of CCS technology commercially viable.

Trisko 2009 [Eugene M. Trisko, Statement on behalf of the United Mine Workers of America, AFL-CIO Before the Committee on Environment and Public Works United States Senate. October 29, 2009

http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=2e58d71f-afb1-484b-a45d-5ac0bc1b9b15]

Support for Commercial Deployment of CCS Technologies The UMWA supports the objectives of the CCS commercial incentives provided by the Senate Coal Group's recommendations, reflected in the Chairman's Mark, such as the measurement of qualifying capacity based on net "treated" capacity sequestered, and the award of advance CCS bonus allowances. A financial mechanism such as bonus allowances is needed to defray the incremental capital and operating costs of CCS technologies at new and retrofit plants relative to units not employing carbon controls. Advance payments of bonus allowances will help developers to secure financing – an increasingly difficult hurdle for major projects.

Regarding the potential scope of bonus allowances available for CCS applications, the Committee should consider the potential demand from both new and retrofit facilities. There are more than 300 Gigawatts of existing coal capacity across the nation. As recognized by the recent MIT symposium on retrofit opportunities,⁴ many of the larger units (>300 MW) equipped with conventional pollution controls and located near carbon storage sites may represent viable candidates for retrofit CCS controls. The demand for new coal plant applications also must be considered.

CCS bonus allowances received approximately 4.6% of the H.R. 2454 allowance pool, compared to the 8% CCS allocation provided in the 2007 Bingaman-Specter bill (S. 1766). With a smaller Senate allowance pool available for allocations and bonus allowances, a larger percentage allocation would be needed to match the number of allowances provided by H.R. 2454. The recent EPA report qualitatively discusses this issue, but it does not provide comparative findings on projected CCS deployments under the House and Senate bills.⁵

Nuclear

Prior the 2011 earthquake in Japan and the explosion at the Fukushima nuclear power plant, the nuclear power industry was experiencing a renaissance. Many publically praised the benefits of nuclear power, labeling it as a "clean" source of energy. However, the future of nuclear power took a sharp turn as the industry came under fire as a result of the earthquake.

Lean 3/14/2011 [Geoffrey, "Japan earthquake: Nuclear power under fire" The Telegraph. <http://www.telegraph.co.uk/earth/energy/nuclearpower/8379926/Japan-earthquake-Nuclear-power-under-fire.html>]

The events at Fukushima are likely to make things worse. "This is obviously a significant setback," says Peter Bradford, a former member of the NRC. "The image of a nuclear power plant blowing up before your eyes on the television screen is a first. These cannot be good things for an industry that is looking for votes in the Congress and in the state legislatures."

Despite the public opinion barrier, options exist to increase government support for, and therefore the development of, nuclear power. Cost is the primary barrier to new plant construction, and the industry has called for federal loan guarantees to overcome this hurdle.

Ferguson 11/10/2011 [Charles D., President of the Federation of American Scientists "Think Again: Nuclear Power Japan melted down, but that doesn't mean the end of the atomic age." 2011http://www.foreignpolicy.com/articles/2011/10/11/think_again_nuclear_power?page=full] "Nuclear Power Is Too Expensive."

Yes and no. In fact, nuclear power plants are relatively cheap to operate. Averaging the costs over the life of the operation, a safely run plant can even be a cash cow, generating power at as low as 6 cents per kilowatt-hour, comparable to a coal-fired power plant. The problem is getting them built. A large reactor can cost several billion dollars, and construction delays -- as well as slowdowns forced by inevitable legal challenges -- have been known to drive up construction costs by \$1 million a day.

This problem is nothing new; it has plagued the industry since the 1970s. Years before the Three Mile Island disaster turned public opinion against the atom, the U.S. nuclear sector was already in trouble on account of legal and bureaucratic changes enacted under Presidents Richard Nixon, Gerald Ford, and Jimmy Carter that made new plants easier to stop with lawsuits -- usually filed by environmental and citizens' groups -- and regulations more unpredictable. That spooked investors, who in turn raised interest rates on borrowing for plant developers. The then-ongoing recession, which depressed energy demand, didn't help; neither did the plummeting price of oil and deregulation of natural gas that followed in the 1980s. Today, the industry argues that plant construction can only happen with the help of tens of billions of dollars in federal loan guarantees, which transfer financial risks onto taxpayers.

But the fact is that nuclear power has never succeeded anywhere without enormous government backing. Until 2004, the French government wholly owned Électricité de France, the utility that operates all French nuclear power plants, and the government still controls more than 80 percent of it today. The Chinese government also largely or wholly owns China's nuclear-power utilities. And nuclear is hardly the only energy source that hasn't stood up in the free market once you factor in the external costs. Consider how much of the Pentagon's \$550 billion-a-year budget goes toward securing oil supplies. For a country like Japan or South Korea, with virtually no domestic energy supplies, nuclear power may be worth the upfront costs if it allows for a measure of energy security. As for the rest of us, nuclear power may also come to seem a good deal, once you factor in the risks of climate change.

Supporters of nuclear power argue that very few alternatives exist to expanding the fleet.

Reliance of fossil fuels poses problems for the global climate and agriculture system. The storage capacity necessary to rely on wind and solar power to meet our energy needs are not yet feasible.

Forsberg 2011 [Charles Forsberg was a Corporate Fellow at Oak Ridge National Laboratory before joining the Department of Nuclear Science and Engineering at MIT as the executive director of the MIT Nuclear Fuel Cycle Study. "What alternatives to nuclear energy? October 6, 2011. <http://www.thebulletin.org/web-edition/roundtables/nuclear-energy-different-other-energy-sources#rt8911>]

For those opposed to nuclear energy, the belief is that there are alternative energy sources -- a faith in alternatives, ironically, as strong as some of the early advocates for nuclear power in the 1950s. But no such options exist in a world that will soon have 10 billion people (see Forsberg, "Mutually Assured Energy Independence"). That fundamental reality dictates the need for nuclear energy.

Climate change, fossil fuels, and famine. We have fossil fuels; however, the burning of fossil fuels releases carbon dioxide into the atmosphere with the potential for large changes in (1) climate and (2) pH (acidity) of water and soil. Both threaten agricultural productivity, because the changing climate moves agriculture to less productive soils. A consistent climate is critical in the formation of fertile soils -- a several-thousand-year process. Climate change also may entail rebuilding much of man's infrastructure, which is designed for specific climate and sea-level conditions. Betting on fossil fuels is a high-risk strategy for world agriculture and food supplies. While carbon dioxide sequestration will work in a few locations, it's unlikely to be a universal solution.

Renewables: latitude counts. We live on a globe circling the sun that creates seasons. That reality means that renewable systems must address how to store energy on a daily, weekly, and seasonal basis. It also drives the design of future energy systems.

At MIT, we examined electricity-storage requirements for California assuming three energy futures: (1) all electricity produced by nuclear reactors operating at constant output, (2) all electricity produced by wind assuming California wind conditions and the National Renewable Energy Laboratory (NREL) wind model, and (3) all electricity produced by solar using the NREL solar-trough model that includes limited energy storage. Table 1 shows the fraction of electricity that has to go into storage at times of excess electricity production to provide electricity when demand exceeds supply.

Table 1. Electricity-storage requirements as a fraction of total electricity produced

Hourly Weekly

All Nuclear	0.07	0.04
All Wind	0.45	0.25
All Solar	0.50	0.17

The hourly storage requirements were determined by using the hourly demand curves for electricity and the hourly electricity outputs of solar or wind or nuclear in California. The weekly storage requirements assumed that smart grids, pumped storage, and other technologies could result in each week having a uniform electricity demand, but different weeks have different electricity demands. It is thus a measure of the seasonal storage requirements that needs to be identified, assuming different energy sources with seasonal storage requirements measured in 10s to 100s of gigawatts per year depending upon the electricity production technology.

Two-thirds of our electricity is base-load electricity; base-load nuclear energy has low electricity storage requirements. The storage requirements for solar and wind, however, are higher. In fact, the situation is even worse than indicated in Table 1, because the calculations assumed perfect storage systems. Real seasonal storage systems have just 50 percent efficiency but may

ultimately increase to 70 percent. In other words, serious wind and solar energy initiatives require massive seasonal storage systems.

There are seasonal energy storage technologies being developed, such as nuclear-geothermal gigawatts per year and hydrogen systems. In a nuclear-geothermal energy storage system at times of low electricity demand, nuclear energy is used to heat a 500-meter cube of rock a kilometer or more underground to create an artificial geothermal heat source for peak power production. However, there is no way to insulate rock a kilometer underground. The heat losses are only a few percent on a large system but prohibitive in smaller systems -- that is, it is a technology that only couples to large-scale nuclear energy.

The potentially viable seasonal electricity storage technologies (including hydrogen) either couple to nuclear plants or involve synergistic combinations of nuclear and renewables -- but viable storage technologies do not couple efficiently to wind and solar. Renewable advocates point to Denmark and Germany -- countries whose wind systems depend upon Scandinavian hydro. However, there is not enough hydro worldwide to make a serious dent in the storage challenge. An all-renewables world will remain unaffordable -- even if the cost of renewables drop because of the larger challenge of energy storage to match production with demand.

Conclusions. Our energy challenge requires nuclear and renewables -- technologies that are complementary in many applications. Energy is over 10 percent of the global GNP, so economics matters because mankind needs more than energy to prosper. The risks of nuclear energy are small compared with the alternatives of oil wars, climate change, or unaffordable energy.

Renewables

While renewable energy incentives were debated in high school, now provides a unique opportunity to discuss the issue of renewable energy. As mentioned in the introduction, many federal programs that support renewable energy development are expired and/or set to expire in the coming future. Now, more than ever before, is an important time to be having the debate on whether we should be subsidizing alternative energy programs and what is the most effective way to do that.

Breakthrough Institute 2012 [Beyond Boom & Bust: Putting Clean Tech on a Path to Subsidy Independence, Jesse Jenkins, Director of Energy and Climate Policy, Breakthrough Institute, Mark Muro, Senior Fellow, Metropolitan Policy Program, Brookings Institution, Ted Nordhaus and Michael Shellenberger, Cofounders, Breakthrough Institute, Letha Tawney, Senior Associate, World Resources Institute, Alex Trembath, Policy Associate, Breakthrough Institute http://thebreakthrough.org/blog/Beyond_Boom_and_Bust.pdf]

Along the way, this report provides a comprehensive analysis of the spending trajectory of 92 distinct federal policies and programs supporting clean tech sectors over the 2009 to 2014 period. As this analysis illustrates, an era of heightened clean energy spending supported by the American Recovery and Reinvestment Act of 2009 (ARRA) is now coming to an end, coinciding

with the expiration of several additional time-delimited tax credits and programs. As a result, key portions of the clean tech industry can now anticipate substantially reduced federal support (see Figure ES1).

At the same time, market subsidies are being cut in several European markets, reducing export opportunities for US clean tech manufacturers and leading to oversupply and declining margins, even as pressure mounts from both low-cost natural gas at home and foreign clean tech manufacturers abroad.

US clean tech sectors therefore face a combination of new challenges, despite the growth and progress achieved in recent years. The specific market impacts will vary by sector (see Part 2). But without timely and targeted policy reform, several sectors are likely to experience more bankruptcies, consolidations, and market contraction ahead.

And yet the demise of the current clean tech subsidy system need not be disastrous. In fact, it may provide an opportunity for needed reform and further industry growth, albeit one that must be carefully approached by both policy makers and business leaders.

Many of today's existing subsidies and clean energy programs, after all, are poorly optimized, characterized by a boom and bust cycle of aid and withdrawal, or in need of thorough revision thanks to either recent progress in the price and performance of subsidized technologies or the mounting fiscal burden imposed by some programs.

The end of the present policy regime therefore offers the opportunity to implement smart reforms that not only avoid a potential "clean tech crash" but also accelerate technological progress and more effectively utilize taxpayer resources. Well-designed policies that successfully drive innovation and industry maturation could provide US clean energy sectors a more stable framework within which to advance towards both subsidy independence and long-term international competitiveness.

Here is more evidence regarding the substantial and unique difficulties the renewable energy sector faces at this point in time.

Cardwell 4/10/2012 [Diane, Renewable Sources of Power Survive, but in a Patchwork April 10, 2012 <http://www.nytimes.com/2012/04/11/business/energy-environment/renewable-energy-advances-in-the-us-despite-obstacles.html>]

JUST a few years ago, the future of renewable energy looked as bright and shiny as a white turbine blade coming out of the mold. The federal government was handing out money under the stimulus package, states were approving clean energy mandates, young companies were racing ahead with promising new technologies and big global developers were planting stakes for ambitious, utility-scale projects.

Now that picture has dimmed. The low price of natural gas has made renewable power less appealing to utilities and energy companies. The high price of gasoline — which has become an issue in the presidential campaign, as Republican candidates seek to use it against President Obama, has renewed calls to increase oil exploration and production at the expense of alternatives. State lawmakers are reconsidering requirements for utilities to buy green power. Surprisingly fierce competition from Chinese photovoltaic manufacturers has driven American ventures to the brink of bankruptcy and beyond.

And the problems of Solyndra, a would-be solar panel maker that collapsed despite receiving a \$535 million federal loan guarantee, have given subsidies for green energy a bad name, which in

turn has weakened interest from the private sector in financing it. A tax grant program important to the solar industry has already expired, while a tax credit favored by the wind industry is scheduled to end this year.

“Gas is wiping out every other technology in its path,” said David Crane, chief executive of NRG Energy, a developer that canceled the Bluewater wind park off the Delaware coast last year because it could not find an investment partner. “If renewables had gotten a couple more years of support from the federal government, it would be smooth sailing.”

Concerns regarding overlap with the high school topic (which are also addressed in the “wording” and “frequently asked” section of the paper) can be addressed by either a) choosing to exclude renewable sources from the resolution (which Dylan and I would argue against) or b) understanding that the overall mechanism of the resolution is very different from the high school topic that mandated increased incentives for alternative energy development. This topic, but including non-renewable sources as stable affirmative ground changes the direction of the topic. Finally, c) a compromise could be a “list” version of potential energy sources that includes some (but not all) renewable sources. I will specifically focus on reasons to include wind, solar, and biofuels in the topic.

Wind

Wind power is becoming increasingly competitive with gas fired electricity generation. However, expiring subsidies are creating significant uncertainty in the industry and threaten to unravel significant progress being made in the industry. Options for renewing certain expired provisions to keep the industry afloat are outlined below.

Breakthrough Institute 2012 [Beyond Boom & Bust: Putting Clean Tech on a Path to Subsidy Independence, Jesse Jenkins, Director of Energy and Climate Policy, Breakthrough Institute, Mark Muro, Senior Fellow, Metropolitan Policy Program, Brookings Institution, Ted Nordhaus and Michael Shellenberger, Cofounders, Breakthrough Institute, Letha Tawney, Senior Associate, World Resources Institute, Alex Trembath, Policy Associate, Breakthrough Institute http://thebreakthrough.org/blog/Beyond_Boom_and_Bust.pdf]

At present, the federal PTC for wind power production brings the levelized cost of electricity from new wind power projects down to an estimated range of \$33-65 per megawatt-hour (MWh), depending on the quality of wind resource. 41 At these prices wind power is broadly

competitive with new gasfired generation (with levelized costs as low as \$52 at likely gas prices, see Box 1), supporting robust market expansion.

However, the PTC is scheduled to expire at the end of 2012, creating significant market uncertainty⁴² and prompting manufacturers of wind turbine components to prepare for layoffs and substantial market contraction. ⁴³ Without the PTC, the unsubsidized cost of a typical new wind power project ranges from about \$60-90 per MWh (for “Class 3” and above wind sites), making wind energy competitive with gasfired generation only in the best of wind regimes with ready access to existing transmission capacity. ⁴⁴ Very few of these ideal sites remain available for development. If the PTC expires without any replacement, market analysts expect annual wind energy installations to collapse from a projected peak of 8-10.5 gigawatts (GW) in 2012 to just 1.5-2 GW in 2013.⁴⁵

Already, the expiration of the ARRA-funded Section 1603 grant program for renewable electricity projects has forced wind developers to return to the complex and more expensive tax equity market to monetize the value of the PTC and secure project finance, raising financing costs and constraining available investment for wind energy projects. ⁴⁶ The expiration of the 1603 grant program has raised the cost of debt capital for wind projects an estimated 3-8 percentage points, a roughly 50-130 percent increase in the cost of financing a wind project. ⁴⁷ Furthermore, as the available pool of tax equity finance is restricted to a small number of large financial institutions, reliance on tax equity markets could constrain total available investment in renewable energy projects. The US Partnership for Renewable Energy Finance estimates that renewable energy project developers will demand \$7-10 billion in project finance during 2012, while tax equity markets are likely to only be able to supply only \$3.6 billion. ⁴⁸ Financing constraints imposed by the expiration of the Section 1603 cash grant project could thus significantly constrain wind and other renewable energy deployment in 2012 and beyond, even with the PTC in place.

The simultaneous expiration of the Section 1705 DOE loan guarantee program also deprives wind developers of a source of affordable project finance. ⁴⁹ Before expiring, the Section 1705 program closed loan guarantees totaling \$1.7 billion for wind power projects. Going forward, some wind projects may still qualify for loan guarantees from the Section 1703 loan program. The program currently has \$1.5 billion in remaining authorized loan volume available to renewable energy projects able to pay their own credit subsidies, as well as an additional \$170 million in appropriated funds to pay credit subsidies for projects that had previously applied to the Section 1705 program but were not selected before the expiration of that program. The DOE is confident it will use all of its authorized loan authority for wind and other renewable energy technologies, ⁵⁰ although the fate of the now controversial DOE Loan Programs Office, which has come under fire since the bankruptcy of DOE loan guarantee recipient Solyndra, remains unclear.

While wind power will continue to benefit from mandates requiring utilities to adopt renewable energy enacted in 29 US states and the District of Columbia, without the PTC and other federal incentives and with increased costs of project finance, the costs of compliance with such standards may trigger the various cost containment provisions enacted in each of these policies, reducing the market opportunities for renewables. ⁵¹

Market uncertainty and declining deployment incentives impact not just project developers but also take their toll on US manufacturers of wind power components. For example, Danish-based wind turbine maker Vestas estimates that if the PTC expires, the company will have to layoff 1,600 workers at US factories as demand falls for turbines in US markets. ⁵² Furthermore,

declining market incentives in the US follow the expiration of the temporary Section 48C Advanced Energy Manufacturing Tax Credit created by ARRA, which provided a 30 percent credit for companies investing in new, expanded, or reequipped domestic manufacturing facilities for clean energy products. Before reaching its volumetric cap in 2010, the 48C credit awarded \$364 million to 52 US wind manufacturing projects. 53 Since 2010, there has been no direct policy support for US wind manufacturing.

Solar

Solar power also faces pressure from low-cost natural gas alternatives. Recent efforts have resulted in substantially reduced, and historically low, costs for solar energy production. Without subsidies or other forms of policy support, it will be impossible for the industry to remain competitive.

Breakthrough Institute 2012 [Beyond Boom & Bust: Putting Clean Tech on a Path to Subsidy Independence, Jesse Jenkins, Director of Energy and Climate Policy, Breakthrough Institute, Mark Muro, Senior Fellow, Metropolitan Policy Program, Brookings Institution, Ted Nordhaus and Michael Shellenberger, Cofounders, Breakthrough Institute, Letha Tawney, Senior Associate, World Resources Institute, Alex Trembath, Policy Associate, Breakthrough Institute http://thebreakthrough.org/blog/Beyond_Boom_and_Bust.pdf]

Like wind power, utility-scale solar power projects are pressured by competition from low-cost natural gas. Large, central-station solar PV and solar thermal power projects typically compete most closely with peaking power plants, often gas combustion turbines, with estimated costs in the \$71.5-103.5 per MWh range at likely gas prices (see Box 1). In contrast, the unsubsidized levelized cost of electricity from typical utility scale solar PV installations fell between \$111 and \$181 per MWh in late 2011, a broad range that captures wide discrepancies in regional solar resources. 54 With the support of federal and state subsidies, solar projects in California, the largest solar market in the United States, have achieved contract bids below \$90 per MWh, a historic low-point in the trend towards cost parity in solar markets. 55 Despite significant declines in solar costs in recent years, however, solar PV projects still have difficulty competing in wholesale power markets with new gas-fired generation without subsidy or policy support, except perhaps in regions with the highest solar resource.

Going forward, analysts expect continued declines in solar PV module and system prices. With the right innovation and market supply/demand conditions, unsubsidized utility scale solar PV costs may decline into the \$90-150 per MWh range by 2014 and the \$40-66 per MWh range by 2020. 56 These forecasts show solar achieving wide cost parity with natural gas generation within the decade, but will require sustained innovation by industry and optimized public policy support

In the meantime, solar currently benefits from a 30 percent investment tax credit (ITC) not scheduled to expire until 2016, which will help solar PV remain competitive in a much wider range of markets. After 2016, the ITC reverts to a permanent 10 percent business tax credit, while a personal income tax credit for residential installations expires. Several states also offer

additional tax credits and incentives for solar power producers. 57 For the time being, US solar markets thus face somewhat greater policy certainty than wind power markets.

Furthermore, solar power projects on residential, commercial, and industrial rooftops compete less directly with wholesale prices for gas-fired generation. Instead, these “behind-the-meter” installations must reach a price that is competitive with the higher retail electricity rates offered by utilities, a point often referred to as “grid parity.”

After significant recent cost reductions, the unsubsidized cost of electricity from solar installations on residential rooftops dropped to a range of \$178 to \$345 per MWh in late 2011, although higher prices are possible for projects with poor capacity factors . 58 These prices are now at or near cost parity with retail electricity rates in certain US markets with the right combination of high electricity prices and/or high solar irradiance. Rooftop solar projects are typically cost competitive now without subsidy in Hawaii, where retail electricity rates average \$281/MWh. Depending on the pace of innovation and cost reductions, rooftop solar is also within striking distance of unsubsidized retail grid parity in several sunny states with relatively high electricity rates, including California, Texas, Florida, and Nevada, as well as a set of northeastern states (Connecticut, New York, New Jersey, and New Hampshire), where residential electricity rates exceed \$160 per MWh and solar irradiance is modestly high. 59 With the benefit of the ITC and additional state incentives, markets for rooftop solar are currently robust in each of these states. 60

Despite this relatively positive outlook, expiring federal subsidies are having a negative effect on solar markets. As in the case of the wind industry, the expiration of the ARRA-funded Section 1603 cash grant program has left solar project developers dependent on tax equity markets, significantly increasing the cost of project finance and constraining the pool of available investors (see wind discussion above for more). According to an analysis commissioned by the US Solar Energy Industries Association, the expiration of the 1603 grants will reduce the pace of solar energy installations by a cumulative 5,343 MW between 2012 and 2016—a market contraction of nearly 12 percent—as the industry reverts to reliance on the less effective ITC. 61 The Section 1705 DOE loan guarantee program also expired at the end of September 2011, depriving solar developers of another lower-cost financing option. Before expiring, the 1705 program closed 12 loan guarantees for solar generating projects, supporting more than \$4.4 billion in total investment. 62 As with other renewable electricity projects, some solar projects may tap the \$1.5 billion in remaining authorized loan volume for renewable energy technologies under the Section 1703 loan guarantee program, as well as \$170 million in appropriated funds set aside to cover credit subsidies for projects that had previously applied to the Section 1705 program but were not selected before the expiration of that program

The expiration of both the Section 1705 program and the 48C Advanced Energy Manufacturing Tax Credit leaves US solar manufacturing with little direct federal policy support, while facing intense international competition from manufacturers in China, Germany and elsewhere. Before expiring, four US solar manufacturers received support from the Section 1705 loan guarantee program, including now bankrupt Solyndra.

Biofuels

The literature about biofuels is well developed. Advanced biofuels, including cellulosic and non-corn feedstocks are facing substantial setbacks from the expiration of federal support programs.

Breakthrough Institute 2012 [Beyond Boom & Bust: Putting Clean Tech on a Path to Subsidy Independence, Jesse Jenkins, Director of Energy and Climate Policy, Breakthrough Institute, Mark Muro, Senior Fellow, Metropolitan Policy Program, Brookings Institution, Ted Nordhaus and Michael Shellenberger, Cofounders, Breakthrough Institute, Letha Tawney, Senior Associate, World Resources Institute, Alex Trembath, Policy Associate, Breakthrough Institute http://thebreakthrough.org/blog/Beyond_Boom_and_Bust.pdf]

The Volumetric Ethanol Excise Tax Credit (VEETC) long benefiting corn-based ethanol producers expired at the end of 2011 and has not been renewed. Conventional ethanol producers are expected to weather the loss of their primary subsidy far better than other sectors, however, thanks to the relatively competitive price of ethanol relative to current oil prices and the ongoing presence of a national Renewable Fuels Standard. This market mandate requires the annual use of ethanol and other biofuels to steadily expand from 12.6 billion gallons in 2011 to 14.4 billion gallons in 2014. According to agricultural commodity analysts Advanced Economic Solutions, the removal of the VEETC will therefore result in “only a modest reduction in US ethanol production” as the current application of the VEETC only marginally increases total production above what the Renewable Fuels Standard mandates regardless.⁶⁷

Advanced biofuels produced from inedible cellulosic material and other non-corn feedstocks face more substantial impacts from expiring federal supports. A subsidy generally worth \$1.01 per gallon for cellulosic ethanol producers is scheduled to expire at the end of 2012, alongside a USDA Bioenergy Program supporting production of feedstocks for advanced biofuels. A temporary ARRA-supported program appropriated \$800 million to support pilot- and demonstration-stage biorefineries for advanced biofuels, but all funds were expended by the end of 2009. Finally, a USDA Biorefinery Assistance Program created by the 2008 Farm Bill offers loan guarantees to cover a portion of the development, construction, or retrofitting costs of new, commercial-scale advanced biofuel refineries, yet new lending authority for this program expired in the spring of 2011. While the federal RFS creates demand for non-corn biofuels, fuel producers are only obligated to purchase advanced biofuels if they are available in sufficient quantities and at low enough prices. With public subsidy for next-generation biofuels approaching a nadir, the market outlook for this nascent sector appears highly uncertain.

Potential Critical Ground

By: Dylan Quigley

There is a wealth of critical studies literature on energy and the environment. Some critical literature bases the community has explored in recent years, like nuclear criticism, were engaged in cycles of academic boom and bust. The critical literature surrounding energy, in contrast, is almost 40 years old and has never experienced a significant decline in interest. This means the main lines of argument are not just sketched but rigorously fleshed out from long-term internal debates. New ground is still being charted with fields like critical international political economy emerging and establishing themselves. The umbrella of “energy” offers the community the ability to bring into conversation literatures from environmental studies, communication studies, philosophy and political science that do not often get exposed to one another.

Pedagogical Value:

I can think of few topics the community could select that would better help students forge connections between the global and the local. The questions we would deal with are not just of international importance but also intersect deeply into the everyday lives of all of us.

Affirmatives on this topic have not only a wealth of theoretical literature to draw from but also phenomenal works on social justice and environmental racism. Too often we select topics that are difficult to make tangible or are far removed from the everyday lives of most of our students. Energy offers an opportunity to debate real and material questions of social justice that directly impact our students and our communities. This value, more than any of the specific theoretical literatures I’ll discuss below, makes me support this as a college debate resolution.

Answering Critical Arguments on an Energy Topic:

One of the hallmarks of a great topic is not just that there is both great policy and critical ground but also that the points of disagreement between those two literatures are deep and well developed. One of the reasons I'm so excited about an energy topic is that it will allow very strong methodological debates about science and empiricism. Over the last two years our community has gotten markedly better at defending (and attacking) social studies as an empirical and scientific process. We have the opportunity to become much better at fleshing out this debate, especially as it refers to more concrete scientific literature. Critical arguments must deal with very concrete and empirical questions in order to make any strong claim in a debate over energy policy. Though I'm sure many will try, it will be difficult for critical affirmatives and negatives to avoid the material consequences of their arguments.

Specific Critiques:

Most of this will already be well known to many of you but I want to illustrate the depth and quality of possible critical literature. This is not meant to be exhaustive but to demonstrate a robust engagement with a variety of questions. I've unhelpfully divided this vast literature into Pragmatic, Rhetorical and Ontological Critiques.

Pragmatic:

There are great debates the issues of technical solutions to environmental problems and the focus on energy production, rather than the social factors the lead to demand.

White (post-doctoral research fellow in the School of Cultural and Innovation Studies, University of East London) 2 (Damian, A Green Industrial Revolution? Sustainable Technological Innovation in a Global Age, Environmental Politics, Vo1.II. No.2, Summer 2002. pp.I-26)

Even a superficial reading of Factor Four and Natural Capitalism reveals some fairly glaring weaknesses in this project. Concerns could immediately be flagged regarding the manner this project bolsters reductionist currents in the environmental debate. One need not share the suspicion of science and technology apparent in deep ecological quarters to recognise how scientism and a narrowly focused technological reductionism can systematically detract

attention from the social and political roots of social and ecological problems [Habermas, 1971; Benton, 1994]. Reinforcing recent moves in World Bank, OECD and corporate discourses to see sustainable development as a 'capital exchange process', a high degree of objectification enters into this discussion. In Factor Four and Natural Capitalism 'nature' is reduced to a resource 'out there' to be managed as 'natural capital' and the human subject becomes simply 'human capital'. As Molloy has noted, there is little recognition that the use of this language: 'open[s] up the possibility of regarding the entire non-human world, genes, bodies, species as instrumentally there for exploitation, appropriation, and accumulation ...' [Mallo}, 2000]. The politics that emerge from this project have distinctly managerialist overtones. As Hawken, Lovins and Lovins state in Natural Capitalism as a broad prescriptive vision: 'Communities and whole societies need to be managed with the same appreciation for integral design as buildings, the same frugally simple engineering as lean factories, and the same entrepreneurial drives as great companies' [Hawken et al., 1999: 286]. Consequently, there is a tendency to repeat the classic mistake of static and a-historical utopianism - the idea that politics can be replaced by rational design or scientific managerialism, It is also the case that the managerialist caste of this project ensures little awareness is demonstrated of the extent to which there is a long, and now well documented, history of public and environmental health being used as regulatory strategies of social control [Darier, 1999]. Beyond these fairly evident weakness though, this project has encountered more trenchant critics of late of the opinion that this project is far more fundamentally flawed.

Classic anti-capitalist arguments will of course be relevant but also more nuanced discussions from the associated critical economics literature critiquing theories of incentives and rational choice

Harriss-White, Professor of Development Studies, Oxford, 2006 Barbara Undermining Sustainable Capitalism: The Market-Driven Politics of Renewable Energy
socialistregister.com/socialistregister.com/files/ecolbhweh19Oct06.doc

Fossil energy underwrites and saturates capitalist social organisation. The energetics of capitalist production have involved ever more aggregate matter and energy which results in ever more physical waste and dissipated, useless forms of energy, social defences against the effects of which require ever increasing costs. **While the building of an ecological capitalism is being imagined, the recreation of any kind of 're-humanised nature' under capitalism cannot be achieved without an increase in entropy. The physical engine of capital relentlessly destroys carbon and methane sinks releasing greenhouse gases. It wreaks havoc with ecosystems, biodiversity and human wellbeing.** 'An enormous chemical experiment' said Adair Turner of Merrill Lynch in 2003. By early 2006, some expert climate change modellers had estimated that the global CO2 concentration level above which dangerous

climate change is unstoppable had been reached. **Development as a process of catch-up is now well understood to be a thermodynamic impossibility which would destroy human life.** Indeed the ubiquitous and persistent petty commodity forms of capitalism associated with poverty make sense in part as one means by which capital polices its ecological limits : poor people tread with small ecological footprints.

The mechanics of tech distribution and the social justice effects of renewable energy development will not just be affirmative arguments

White (post-doctoral research fellow in the School of Cultural and Innovation Studies, University of East London) **2** (Damian, A Green Industrial Revolution? Sustainable Technological Innovation in a Global Age, Environmental Politics, Vol.II. No.2, Summer 2002. pp.I-26)

The first point is essentially negative. Notably, it draws attention to the fact that even if all the obstacles to a green industrial revolution posed by the structuring of the current political economy are addressed – if there are not forces to make things differently - the type of eco-technological and ecoindustrial reorganisation that triumphs could simply serve and reinforce the patterns of interest of dominant groups. A neo-liberal version of the 'green industrial revolution' could simply give rise to eco-technologies and forms of industrial reorganisation that are perfectly compatible with extending social control, military power, worker surveillance and the broader repressive capacities of dominant groups and institutions. It might even be that a corporate dominated green industrial revolution would simply ensure that employers have 'smart' buildings which not only give energy back to the national grid but allow for new 'solar powered' employee surveillance technologies. What of a sustainable military-industrial complex that uses green warfare technologies that kill human beings without destroying ecosystems? To what extent might a 'nonhero' dominated green industrial revolution simply ensure that the South receives ecotechnologies that primarily express Northern interests (for example, embedding relations of dependency rather than of self management and autonomy?). In short then, a green industrial revolution could simply give rise to new forms of 'green governmentality' [Dorier et al., 1999].

These are questions that will have to be engaged with on both side of the resolution

Tim Wise 11 (<http://changefromwithin.org/2011/04/13/tim-wise-and-white-privilege/>)
But as troubling as colorblindness can be when evinced by liberals, colormuteness may be even worse. Colormuteness comes into play in the way many on the white liberal-left fail to give voice to the connections between a given issue about which they are passionate, and the issue of racism and racial inequity. So, for instance, when environmental activists focus on the harms of pollution to the planet in the abstract, or to non-human

species, but largely ignore the day-to-day environmental issues facing people of color, like disproportionate exposure to lead paint, or municipal, medical and toxic waste, they marginalize black and brown folks within the movement, and in so doing, reinforce racial division and inequity. Likewise, when climate change activists focus on the ecological costs of global warming, but fail to discuss the way in which climate change disproportionately affects people of color around the globe, they undermine the ability of the green movement to gain strength, and they reinforce white privilege.

Rhetorical:

The effectiveness and ethics of our rhetoric in energy debates matters deeply and is something our community could make actual pragmatic and academic contributions to

Boykoff et al. 9 (Max Boykoff (University Of Oxford), Mike Goodman (King's College London), Ian Curtis (University Of Oxford), Environment, Cultural Politics of Climate Change: Interactions in the Spaces of Everyday, Politics and Development Working Paper Series, Department of Geography, King's College London
<http://www.kcl.ac.uk/schools/sspp/geography/research/epd/working.html>)

Further, the many 'actors' in this theatre of discursive and material structuration – from climate scientists to business industry interest and ENGO activists to artists, television and movie stars – are ultimately all members of the 'public citizenry'. So, responses to media messaging thereby feed back to varying degrees into ongoing environmental science and policy formulations. In other words, the cultural politics of climate change are situated, power-laden, media-
ted and recursive and should be conceptualised as such. And, much like many of the growing list of 'climate change celebrities', those who have power, access and influence are those who have the advantage in this battlefield of knowledges, understandings and interpretations. Here, mass media
representations of climate change actors, action, predicaments and progress
remain key influences that shape discourses and bounding considerations for
possible climate action. These elements may be as important as formal climate governance architectures – such as those currently being constructed in the lead up to COP15 in Copenhagen – to the long-term success or failure of efforts to
take carbon out of the atmosphere or keep it out. To the extent that we fail to
examine how these representations and symbols are negotiated through relations
of dominance, subordination, and inequalities of access and resources, we miss
out on important components of the "scope of [climate] politics" (Rosati 2007, p. 996) and/or the spectrum of possibilities for future climate mitigation and/or adaptation action.

These debates are long standing but are enjoying an academic rise in interest that is

producing strong empirical, not just theoretical, work

Feinberg and Willer (Psychology Dept and Sociology Dept, UC Berkeley) **11**(Matthew and Robb, Apocalypse Soon? Dire Messages Reduce Belief in Global Warming by Contradicting Just-World Beliefs, Psychological Science January 2011 vol. 22 no. 1 34-38)

Though scientific evidence for the existence of global warming continues to mount, in the United States and other countries belief in global warming has stagnated or even decreased in recent years. One possible explanation for this pattern is that information about the potentially dire consequences of global warming threatens deeply held beliefs that the world is just, orderly, and stable. Individuals overcome this threat by denying or discounting the existence of global warming, and this process ultimately results in decreased willingness to counteract climate change. Two experiments provide support for this explanation of the dynamics of belief in global warming, suggesting that less dire messaging could be more effective for promoting public understanding of climate-change research. Although scientific evidence attests to the existence and severity of global warming, high percentages of people in the United States and elsewhere increasingly see global warming as nonexistent, exaggerated, or unrelated to human activity (BBC Climate Change Poll, 2010; Gallup Poll, 2009, 2010; Pew Research Center for the People and the Press, 2009). Because scientists agree that large-scale action will be necessary to counteract the effects of global warming, environmental advocates often engage in public appeals designed to increase rates of proenvironmental behaviors and promote support for initiatives aimed at counteracting climate change. These appeals often emphasize the severity of potential consequences, relying on messages that highlight the dire risks associated with unchecked global warming (Kerr, 2007). But what if these appeals are in fact counterproductive? We contend that one cause of skepticism concerning global warming may be that such dire messages threaten individuals' need to believe that the world is just, orderly, and stable, a motive that is widely held and deeply ingrained in many people (Lerner, 1980; Lerner & Miller, 1978). Research shows that many individuals have a strong need to perceive the world as just, believing that rewards will be bestowed on individuals who judiciously strive for them and punishments will be meted out to those who deserve them (Dalbert, 2001; Furnham, 2003). Research on just-world theory has demonstrated that when individuals' need to believe in a just world is threatened, they commonly employ defensive responses, such as dismissal or rationalization of the information that threatened their just-world beliefs (for reviews, see Furnham, 2003; Hafer & Bégue, 2005). Information regarding the potentially severe and arbitrary effects of global warming should constitute a significant threat to belief in a just world, and discrediting or denying global warming's existence could serve as a means of resolving the resulting threat. Many dire messages aimed at stopping global warming make salient the impending chaos and unpredictable catastrophe that global warming will bring with it. Moreover, these messages often emphasize the harm that will be done to children and future generations who have done nothing themselves to cause global warming. Such messages contradict the belief that the world is

predictable and fair by suggesting that good people will suffer and that the innocent will be the primary victims. Because these messages contradict just-world beliefs, individuals who most strongly hold such beliefs should be the most threatened. When such people are exposed to dire messages concerning global warming, they are thus likely to discount the evidence. By increasing skepticism about global warming, these dire messages should, in turn, also reduce people's willingness to engage in behaviors aimed at combating global warming. We conducted two experiments testing these claims. In the first, we measured participants' tendencies to hold just-world beliefs, varied the type of global-warming message participants were exposed to, and then measured their levels of skepticism regarding global warming. In the second study, we investigated the role of just-world beliefs more directly, manipulating the salience of these beliefs before exposing participants to a dire global-warming message. We then measured both levels of skepticism and participants' willingness to curb their daily carbon emissions.

Ontological:

An energy topic offers fascinating ways to directly access literature that is often used in a less-than-nuanced, topic-irrelevant manner. Bataille's cosmology of excess is a great example:

Harney & Martin 7 (Stefano, Randy, Mode of Excess: Bataille, Criminality, and the War On Terror, Theory and Event 10:2)

It would be tempting to see in the gap between a general interest in combating terror everywhere, and a particular occupation of two energy states an affirmation of Bataille's equilibration of devastation and profit. Afghanistan's geo-strategic potential for transshipment of oil and gas, Iraq's prized proven oil reserves, Halliburton's corrupt profiteering would seem to affirm the straightforward arithmetic captured by the slogan, "blood for oil." Control of energy consumption would prove the ultimate colonization of Bataille's accursed share. As compelling as the slogan has been to lay bare the motives of imperial excess, Bataille's thought would also have us refuse the enclosure of our own surplus capacity in so certain a lock down of interest-borne scarcity. There can be no denying oil's requirement to the present economic convention. But the necessity of oil politics as they are presented must be contested if the present mode of excess is to be seen as other than laying us all to waste as an inexorable drive to war to control supply in the face of imminent scarcity.

As is Lacanian political theory:

de Goede and Randalls (Department of European Studies, University of Amsterdam; Department of Geography, University College London) **9** (Marieke and Samuel Randalls, Precaution, preemption: arts and technologies of the actionable future, Environment and Planning D: Society and Space 2009, volume 27, pages 859 ^ 878)

What get lost here, according to Swyngedouw (2007, page 23), are the prior political questions that ask ``what kind of natures we wish to inhabit, what kind of natures we wish to preserve, to make, or, if need be, to wipe off the surface of the planet". The larger point, moreover, is that the current debates on climate change may also obscure a wide variety of already existing, or yet to be imagined, strategies to engage with climatic changes (Hulme, 2009). Depoliticizing the debate on climate change and desensitizing the populace from a critical awareness may aid the smuggling through of a number of policies under its rubric, including political- economic policies masquerading as climate policies and the possible introduction of enforced personal carbon trading cards.

Overall I think energy provides literature and possibilities that could make for a great and extremely educational topic.

Potential Negative Ground

It goes without saying that energy issues intersect with politics and election. The negative will have a politics angle against almost-any affirmative at the start of the season – as policies able to be spun as “increasing production” will be deemed significant election issues. The most recent polling data confirms:

McCombs '12 (McCombs Today is a publication of the University of Texas-Austin's McCombs Schools of Business – April 10th – The University of Texas at Austin Energy Poll reflects the views of 2,371 Americans surveyed during March 5-16, 2012. The data were weighted using U.S. Census Bureau figures, as well as propensity scores, to ensure the sample's composition reflects the actual U.S. population. <http://mccombstoday.org/2012/04/energy-poll-reveals-strong-support-for-more-domestic-production>)

Consumers strongly support increased production of energy from domestic sources, particularly natural gas and renewables, according to the University of Texas at Austin Energy Poll, released April 10. This is the second release of the poll, a twice-annual national online survey of energy issues. **The poll also offered insights in how energy issues may affect the upcoming presidential election**, with more than 65 percent of the 2,371 poll respondents saying that energy is important to them. Respondents generally favor candidates whose policies would increase domestic energy production, and expanded natural gas development had the most support among consumers, with 61 percent saying they would be more likely to vote for a presidential candidate who backs this issue. Consumers also support an increase in renewable forms of energy, with 59 percent saying they would be more likely to vote for a candidate who supports additional financial incentives for companies engaged in renewable technologies, as well as a candidate who would require utilities to obtain a designated percentage of their electricity from renewable sources.

More proof that this is a swing issue. This evidence also suggests some affirmative areas for the topic.

Trumbull '12 (Mark Trumbull Staff writer for CSM – Christian Science Monitor – March 12th – lexis)

President Obama is under pressure in public opinion polls, and the high price of gasoline appears to be a central reason. Even though the job market has been improving, energy prices are a big concern that stares Americans in the face whenever they're at a gas pump. That could be bad news for Mr. Obama's reelection hopes, new polls suggest. A Washington Post/ABC News poll, released Monday, tells one big part of the story: Disapproval of the president's handling of the economy stands at 59 percent of Americans, which the Post says is a record low on that issue for Obama. A new Christian Science Monitor/TIPP poll, meanwhile, finds that **a solid majority of the American public lines up with the Republican view that the United States should put more emphasis on expanding domestic energy production.** In the Monitor/TIPP survey, two-thirds of Americans say they favor steps toward boosting oil production from offshore wells and from

shale deposits on federal lands. A majority (54 percent) support the idea of drilling in the Arctic National Wildlife Refuge in Alaska, and some 47 percent would roll back some environmental regulations in the interest of energy production. All this comes as gas prices have risen sharply in recent weeks and have become a hot topic on the presidential campaign trail.

Other sources of negative ground include a number of topic dis-ads. Every source of energy mentioned in the affirmative section has an ample literature base of not only the positives but also the negatives associated with each source. This will allow for in depth debates about the “pros” and “cons” of various energy source. For the sake of space, and what I assume to be a fairly general understanding of this debate among the members of this community, I will not include evidence but rather a list of potential negative ground for these areas.

- Oil Prices
- Grid Reliability
- Warming
- Environment/Ecosystem
- Earthquakes
- Trade/Exports
- Pollution
- Alternative energy trade off
- Nuclear: Accidents, terrorism, radiation

Rich counterplan ground exists on this topic. The list of potential counterplan mechanism provided in the policy mechanism’s table in the “Mainstream Options for Policy Change” section includes: accelerate commercial use of carbon-reduction technologies, reduce or eliminate fossil energy subsidies, enhance the strategic petroleum reserve, spur renewable energy R&D and commercialization, spur renewable energy markets and installations, reduce electricity demands from buildings, increase fuel economy and diversify vehicle fleet, advance smart grid, expand transmission capacity. Energy issues in particular provide for well developed, competing, and mutually exclusive counter plan options. While affirmatives have the option of increasing the use of various domestic energy sources, the negative has an entire literature base on doing the opposite and increasing regulations.

Directions for wording papers

I am strongly going to express similar sentiment as many others have done in writing controversy papers that the following suggestions for wording papers should be taken as just that, guidance, and not a mandate for the topic committee to follow. I repeat: the following section is not and should not be considered a final say on what the resolution should look like. There is a multitude of resources that cannot be fully explored in the time it takes to write a topic paper that can, and should, be the fully engaged in the process of writing the wording papers. Particularly in this topic area, the debate community has unique access to subject matter experts that truly understand how to craft a resolution reflecting the direction the debate over energy policy is headed and the substantive arguments on both sides. Input and guidance from not just the literature, but these individuals, should be taken into account in writing the wording papers. I am not going to suggest that the work I have done in this area is exhaustive of all potential options. Therefore, if the time and research spent on a wording paper results in a “better” version of the energy topic then what is presented in this paper, I would take that version of the topic to be entirely consistent with the intent of this paper. There is a strong current within our community supporting an energy topic, and as the title suggests, this paper should be a referendum on that and not a referendum on individual words I have provided as a starting point for this discussion.

The resolution I proposed at the beginning of this paper, **Resolved: The United States Federal Government should establish a policy substantially increasing the production and / or use of domestic energy resources for transportation and / or electricity generation**, as well as other possible alternatives are discussed in the following section.

The stem: *“The United States Federal Government should establish a policy substantially increasing”*

This part of the stem does not require much discussion. The direction this paper suggested the topic should take is a policy to increase domestic energy. The details of what that increase should be are below.

Increase what?

1. Production

As the following definitions indicate, the use of the term “production” in the literature about energy is common.

NASA 2011 [NASA Scientific and Technical Information. Scope and Subject Category Guide. <http://www.scribd.com/doc/80662465/sscg>]

Energy Production - The production of electricity, combustible fuels, nuclear and thermonuclear fuels, and heating and cooling by renewable resources.

The following definitions from the U.S. Energy and Information Administration provide specific definitions for the production of energy from various fuel sources. The production section of the topic would direct affirmatives to increase the extraction of oil, natural gas, or coal.

Conventional oil and natural gas production

US EIA no date[Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Conventional oil and natural gas production: Crude oil and natural gas that is produced by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore.

Coal Production

US EIA no date[Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Coal production: The sum of sales, mine consumption, issues to miners, and issues to coke, briquetting, and other ancillary plants at mines. production data include quantities extracted from surface and underground mines, and normally exclude wastes removed at mines or associated reparation plants.

Crude oil production

US EIA no date[Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Production, crude oil: The volumes of crude oil that are extracted from oil reservoirs. These volumes are determined through measurement of the volumes delivered from lease storage tanks or at the point of custody transfer, with adjustment for (1) net differences between opening and closing lease inventories and (2) basic sediment and water. Crude oil used on the lease is considered production.

Natural gas production

US EIA no date[Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Production, natural gas: The volume of natural gas withdrawn from reservoirs less (1) the volume returned to such reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; less (2) shrinkage resulting from the removal of lease condensate; and less (3) nonhydrocarbon gases where they occur in sufficient quantity to render the gas unmarketable. Volumes of gas withdrawn from gas storage reservoirs and native gas, which has been transferred to the storage category, are not considered production. Flared and vented gas is also considered production. (This differs from "Marketed production" which excludes flared and vented gas.)

Oil and gas production

US EIA no date[Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Production, oil and gas: The lifting of oil and gas to the surface and gathering, treating, field processing (as in the case of processing gas to extract liquid hydrocarbons), and field storage. The production function shall normally be regarded as terminating at the outlet valve on the lease or field production storage tank. If unusual physical or operational circumstances exist, it may be more appropriate to regard the production function as terminating at the first point at which oil, gas, or gas liquids are delivered to a main pipeline, a common carrier, a refinery, or a marine terminal.

2. Development?

This is a term that I was hoping to find a definition of in the context of energy, but ran short on time to do. I do think it should be explored as an alternative to production in the resolution. Some generic definitions of development include:

To bring to a more advanced or effective state

Dictionary.com no date (<http://dictionary.reference.com/browse/develop>)

Develop verb (used with object)

1. to bring out the capabilities or possibilities of; bring to a more advanced or effective state: to develop natural resources; to develop one's musical talent.
2. to cause to grow or expand: to develop one's muscles.
3. to elaborate or expand in detail: to develop a theory.

The bringing out of latent capabilities or fuller expansion

OED 3rd edition 11 <http://www.oed.com/view/Entry/51434?redirectedFrom=development#eid>

The bringing out of the latent capabilities (of anything); the fuller expansion (of any principle or activity).

1865 R. W. Dale Jewish Temple xii. 131 A promise the final developement and fulness of which we are still waiting for.

1874 J. R. Green Short Hist. Eng. People v. §2. 225 A yet larger development of their powers was offered to the Commons by Edward himself.

1874 J. R. Green Short Hist. Eng. People ix. 697 A mightier and more rapid development of national energy.

1878 W. E. H. Lecky Hist. Eng. 18th Cent. II. v. 50 The real development of Scotch industry dates from the Union of 1707.

1879 J. Lubbock Addr. Polit. & Educ. iv. 85 Natural science, as a study is perhaps the first in development of our powers.

1879 Cassell's Techn. Educator (new ed.) IV. 34/2 This extraordinary development of the iron manufacture.

The change and advancement of something

Cambridge Dictionary 2011 (“Development”

http://dictionary.cambridge.org/dictionary/british/development_1)

[U] when someone or something grows or changes and becomes more advanced
healthy growth and development

The programme traced the development of popular music through the ages.

The region suffers from under-/over-development (= having too little/much industry).

a development project (= one to help improve industry) in Pakistan

3. Use

“Use” would be a valuable inclusion into the topic to give the affirmative options that do more than just “increase drilling” or “increase extraction.” Examples of affirmatives that would fall in this area include the programs for condensed natural gas for transportation vehicles (which would increase the use of natural gas) or programs for coal to liquid technology (which would increase the use of coal). This is a necessary inclusion to make this topic broader than just a “drill, baby, drill” topic (which is what the increased production portion of the resolution would accomplish.) While the “production” (or potentially “development”) portion of the topic is necessary to include in the final wording of the resolution, it should not be the only focus of the

debates. “Use” is an important inclusion to provide ample affirmative ground in areas such as natural gas and coal, which are worthy of inclusion, but already have a lot of production activity.

4. *Energy Security?*

This would be a term that I would advise against using, due to difficulty in defining and measuring what exactly constitutes energy security.

Landislaw et. al 2009 [Sarah O. Ladislaw, Britt Childs Staley, Kathryn Zyla, and Jenna Woodward “Evaluating the Energy Security Implications of a Carbon-Constrained U.S. Economy” January 30, 2009.

http://csis.org/files/media/csis/pubs/090130_evaluating_energy_security_implications.pdf

CSIS and WRI noted in an earlier publication that it is difficult to define “energy security,” and even more challenging to articulate meaningful security goals.¹ Here, the authors begin with a commonly cited definition of energy security as the availability of adequate, reliable, and affordable energy supplies.

Although these terms are commonly used, they are subjective and inherently difficult to value. For instance, it is hard to quantify relevant factors, such as geopolitical dynamics, that influence this definition. Similarly, it can be difficult to decide what a “better” energy security scenario looks like. For example, is reliable access to expensive energy more secure than unreliable access to cheap energy? The answer depends on a host of political, economic, and cultural factors impossible to capture in an abstract model.

5. *Recommendations*

At the risk of being repetitive, but in the interest of being clear, my **strong** recommendation based on the current research conducted it to include both “production” (maybe “development”) and “use” in the resolution.

In the following areas...

There will definitely be arguments that the topic is too big. The sample resolution proposed above limits to just transportation or electricity generation, both defined below.

Transportation Sector

US EIA no date [Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Transportation sector: An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not

transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and fork lifts) are classified in the sector of their primary use.

Electricity generation

US EIA no date [Glossary, <http://205.254.135.7/tools/glossary/index.cfm?id=A>]

Electricity generation: The process of producing electric energy or the amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatthours(kWh) or megawatthours (MWh).

Another mechanism to deal with this concern is limiting the topic to a list of areas to expand domestic energy production. The resolution could limit down from the list of energy sources defined by the Energy Information Agency.

EIA, no date [“Electricity Terms and Definitions”
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Energy Source: The primary source that provides the power that is converted to electricity through chemical, mechanical, or other means. Energy sources include coal, petroleum and petroleum products, gas, water, uranium, wind, sunlight, geothermal, and other sources.

One option would be to exclude renewable sources of energy and just include:

1. Petroleum

EIA, no date [“Electricity Terms and Definitions”
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Petroleum: A mixture of hydrocarbons existing in the liquid state found in natural underground reservoirs, often associated with gas. Petroleum includes fuel oil No. 2, No. 4, No. 5, No. 6; topped crude; Kerosene; and jet fuel.

2. Coal

EIA, no date [“Electricity Terms and Definitions”
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

3. Natural Gas

EIA, no date [“Electricity Terms and Definitions”
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Natural Gas: A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in porous geological formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

4. Nuclear power

EIA, no date ["Electricity Terms and Definitions"
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Nuclear Power Plant: A facility in which heat produced in a reactor by the fissioning of nuclear fuel is used to drive a steam turbine.

That version of the topic would look sometime like: *The United States Federal Government should establish a policy substantially increasing the production and / or use of domestic energy resources in one or more of the following energy sources: petroleum, coal, natural gas, nuclear power.*

I would argue that some forms of renewable energy should be included in a "list" version of the topic. The list of potential renewable energy sources could include:

1. Wind

US DOE no date [US Department of Energy, Energy Efficiency & Renewable Energy, "Glossary of Energy-Related Terms"
http://www1.eere.energy.gov/site_administration/glossary.html]

Wind Energy: Energy available from the movement of the wind across a landscape caused by the heating of the atmosphere, earth, and oceans by the sun.

2. Solar

US DOE no date [US Department of Energy, Energy Efficiency & Renewable Energy, "Glossary of Energy-Related Terms"
http://www1.eere.energy.gov/site_administration/glossary.html]

Solar Energy: Electromagnetic energy transmitted from the sun (solar radiation). The amount that reaches the earth is equal to one billionth of total solar energy generated, or the equivalent of about 420 trillion kilowatt-hours.

3. Biomass

US DOE no date [US Department of Energy, Energy Efficiency & Renewable Energy, "Glossary of Energy-Related Terms"
http://www1.eere.energy.gov/site_administration/glossary.html]

Biomass: As defined by the Energy Security Act (PL 96-294) of 1980, "any organic matter which is available on a renewable basis, including agricultural crops and agricultural wastes and

residues, wood and wood wastes and residues, animal wastes, municipal wastes, and aquatic plants."

4. Hydro

EIA, no date ["Electricity Terms and Definitions"
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Hydroelectric Plant: A plant in which the turbine generators are driven by falling water.

5. Geothermal

EIA, no date ["Electricity Terms and Definitions"
<http://www.eia.gov/cneaf/electricity/page/glossary.html>]

Geothermal Plant: A plant in which the prime mover is a steam turbine. The turbine is driven either by steam produced from hot water or by natural steam that derives its energy from heat found in rocks or fluids at various depths beneath the surface of the earth. The energy is extracted by drilling and/or pumping.

Arguments could be made for limiting to just a couple of these sources, potentially just wind, solar, and biofuels since they are the ones most discussed in the literature and the closest to commercial viability. That version of the topic would look something like: ***The United States Federal Government should establish a policy substantially increasing the production and / or use of domestic energy resources in one or more of the following energy sources: petroleum, coal, natural gas, nuclear power, wind, solar, and biofuels.***

While limiting out certain areas might seem arbitrary, we would argue that including the four "non-renewable" sources would not be a controversial decision, and including (and potentially limiting) which renewable sources are included is a decision that can be made in the wording paper phase of the topic selection process.

In conclusion, our strong recommendation is to include some form of renewable and non-renewable sources on the ballot of potential resolutions. Including a limit on the types of energy can serve as a clarifying function, but Dylan and I do not think this should be an "only fossil fuels" or an "only renewables topic." Rather, it should be divided between the two types of energy. We would advise that at least half of resolutions on the ballot contain a mix of

renewables and fossil fuel sources. Therefore, in voting for this topic area, individuals will have confidence that they can vote on that issue for a second time during that phase of the process.

Reduce regulations:

As mentioned elsewhere in the paper, one mechanism to increase domestic energy development could include reducing, removing, or overturning existing federal regulations. I do not think this should be the *only* direction of the resolution, but think it could be considered as an option that would allow for increased affirmative ground in the areas of coal, natural gas, and nuclear development.

A resolution including both energy production and reducing regulations could look something like: *The United States Federal Government should establish a policy substantially increasing the production of domestic energy resources or [removing, overturning, reducing] federal regulations on energy development.*

My general recommendation would be to not include regulations in the topic. Regulations are a term of art, and a very restrictive term. They are not real laws or statute, but rather rules that individual agencies have made. Allowing this option in the resolution could result in affirmatives using very specific agencies to overturn regulations without legislative action with little disad links.

Response to likely Questions, Comments, and Concerns:

This topic is ginormous.

Do not confuse ginormous ADVANTAGE area with ginormous MECHANISM area. Pragmatically, there are a limited number of way to expand nuclear power or coal production – especially with the modifier “domestic energy production.” A couple other talking points a) most of this research is inevitable. Regardless of if these are allowed in the resolution as affirmative mechanisms, they will be researched as counterplans by the negative. Having a broader wording allows teams of all size to stake out the affirmative ground and mechanism they are comfortable defending without being constrained by a single, arbitrary mechanism that everyone is using, or worse, lacks any real solvency advocates. b) ease of research. The topic is timely, there is a lot of research available, but it’s also not hard research that debaters of all skill levels (novice to 5th year) can do. c) A known quality research should outweigh more limited, although less developed, topic areas. The fact that we have researched and debated energy before means we can predict in part what direction the topic will take and what the terms of the topic will be. Additionally, we know there is peer reviewed, qualified literature that is well developed on this is. D) open source and paperless mean getting cites and evidence is tremendously easier, benefiting both small and large schools in getting better access to evidence.

There are so many solvency mechanisms for the aff

Part of this is repetitive from the above response, but no, there are not really that many solvency mechanisms. There are only so many ways to increase the production or use of these energy resources. I would not support an energy topic paper if it was limited to one exact “mechanism” like taxes or subsidies. From past experience, limiting the affirmative to a singular solvency mechanism limits the amount of solvency advocates and reduces the potential for

affirmative innovation to almost zero. By limiting the “areas” of energy production or use, the topic has predictability of advantage ground and a ton of DAs that link to the energy source (and not the mechanism). Plus options for different mechanism counterplans means the negative has guaranteed ground regardless of how the affirmative actually decides to go about increasing oil drilling or increasing use of natural gas. The high prices good disads or fracking bad arguments will still apply.

Didn't the high school kids just debate energy?

This issue has been addressed in various section of the paper, but I will try to reiterate some of the main points here. The main one being, this mechanism is very different from what the high school kids debated. This version of the topic would allow for debates over increased oil and natural gas drilling, and increased use of these non-renewable energy sources. This was NOT what the previous high school topic was. While allowing for increased production and use in the areas of transportation and electricity generation could include renewable sources, that would not be the sole focus of debates, as was the high school topic.

Dylan and I support including some renewable sources on the ballot of final resolutions, and this would allow the community to decide whether we wanted to revisit the renewables debate or not. But creating a list of just certain renewables (wind, solar, biofuels) in addition to oil, natural gas, coal, and nuclear would ensure that this topic was not just about alternative energy sources.

This topic is bidirectional (pro-fossil and green energy)

The bidirectional nature is (and should be) an upfront selling point. The "mechanism" is stable but allowing the affirmative to promote oil as well as renewables ensuring that current events and administration moves don't destroy the topic.

What about the election?

*Thank you to James Herndon for his always welcome thoughts on the politics DA in crafting this section

It is certain no ground will be broken on substantial changes to our energy policy under the current Congress. The divided and partisan atmosphere in Congress is too hostile to any major legislative changes. The divide in the direction of the topic also generates an interesting in depth discussion of the political ramifications of energy policy. A 2012 USA Today election primer writes [<http://www.usatoday.com/news/politics/issues/energy>]:

The political divide on energy is between proponents (mostly Republicans) of increased domestic production of oil and natural gas and continued use of coal, and supporters (mostly Democrats) of green energy, who see increased use of alternative energy sources, such as biofuels, solar and wind, as a way to reduce foreign oil dependency and save the planet. Most of the GOP 2012 hopefuls reject the conclusion that human activity contributes to climate change, and all propose expanding domestic drilling for oil. President Obama, who says he believes the conclusions on global warming, supports cap-and-trade and is a strong proponent of clean energy. Obama also has signaled support for more drilling.

Unsurprisingly this means that the Republicans would support more fossil fuels, and the Democrats a more “green” approach to energy security. At worse, this would create a more intricate and detailed politics debates as the party angered could change with each aff. Also, no one can deny that the elections disad will be a huge component of negative strategies through the first half of the year.

There is a general consensus among many political and election forecasters that Obama will win the election. Additionally, Obama’s policies have been at best neutral on both which means disad uniqueness should be strong for political and non-political disads even after the election. As the analysis on current Obama administration policies regarding energy throughout the rest of the paper illustrate, it is unlikely that there will be significant moves to expand domestic energy production during his second term

Washington Times 3-25-12 [White House sure its energy policy is an election winner, <http://www.washingtontimes.com/news/2012/mar/25/white-house-rebrands-ryan-budget-romney-ryan-plan/>]

With prices at the gas pump rising, energy policy is shaping up to be one of the key issues in the presidential campaign. President Obama continued last week to push his “all of the above” plan, which he argues will take full advantage of abundant, domestic oil and natural gas reserves while also pushing federal investment in future energy sources such as wind and solar power.

But Republicans, along with many in the fossil fuel industry, see clear hypocrisy between the administration’s words and its actions.

“His rhetoric and his policies are very different,” former Mississippi Gov. Haley Barbour, a Republican, said on “Meet the Press.”

During this year’s State of the Union address and in other recent speeches, Mr. Obama has touted increased natural gas production as a cornerstone in the effort to reduce the nation’s dependence on foreign oil. Recently discovered gas reserves, particularly in the Marcellus and Utica shales in the eastern U.S., could provide at least a century’s worth of supply, according to some analysts. There are growing signs that the auto industry, for example, is poised to take advantage of that fuel. Major car manufacturers such as General Motors Co. have announced that they will roll natural gas-powered vehicles off the assembly line in the next few months. New pipelines have been proposed to bring natural gas from Pennsylvania to D.C., Baltimore, and other major metropolitan markets.

Behind the scenes, however, the administration is taking steps that could greatly hamper the extraction of oil and natural gas and could crush the economic benefits generated by drilling booms.

The Environmental Protection Agency will release new rules later this year on air emissions and potential water contamination at drilling sites that employ the popular “fracking” technique.

Overall drilling in the U.S. is up in recent years, but the increases have come mostly on private lands. On federal lands, drilling is down dramatically since Mr. Obama took office, and some industry analysts see the move to private land as evidence that oil and gas companies are fleeing government-owned property in anticipation of harsh new regulations.

Finally, and very importantly, an energy topic is far less likely to hurt the neg on issue specific uniqueness questions for disad links than previous topics. Mediocre aid disads on the democracy topic were much more susceptible to these arguments. In contract, neg uniqueness claims on this topic will rely on issues like gas prices, oil markets, election polls, White House agenda items, or whether OPEC backstopping is afoot. Additionally, there is a very diverse, very rich literature base on the issue of energy that allows for adaptation to policy changes. The reason energy topics are so “good” is because of this robust literature base. There are multiple, well-funded, well-staffed, and well researched stakeholders in the area of energy topic. This

guarantees a well updated literature base to revise strategies even if policy changes were to occur. Unlike other topics, there is no imbalance in the power dynamics of these interests. Trade groups, activist groups, companies, and industry specific blogs ensure real world responses and a well updated literature base were policy changes to occur.

One possible mechanism may ask the Aff to decrease energy regulation. Irrespective of who wins the general election, topic uniqueness may be in the offing.

Ferrara '12 Peter Ferrara is Senior Fellow at the Carleson Center for Public Policy, Director of Entitlement and Budget Policy for the Heartland Institute, and General Counsel of the American Civil Rights Union. He served in the White House Office of Policy Development under President Reagan, and as Associate Deputy Attorney General of the United States under the first President Bush. American spectator – March 7th – 2012 – <http://spectator.org/archives/2012/03/07/romneys-pending-sell-out-on-gl/2>

Romney's Developing Sellout on Global Warming But those conservatives and Tea Party patriots overlooking Romney's Romneycare apostasy to still vote for him in the primaries are setting themselves up to be gravely disappointed again on this issue. As Governor of Massachusetts, Romney appointed to state office Obama science czar John Holdren, a wacky far out leftist, and Obama EPA Assistant Administrator Gina McCarthy, who is writing and implementing all of the Obama restrictions on power plants. Among the advisors to the Romney campaign on these issues today is James Connaughton, formerly head of the Bush White House Council of Environmental Quality, and a long time ardent supporter of cap and trade. Another is Jeff Holmstead, Bush EPA Air Chief who promoted global warming hysteria, and an interstate clean air rule providing the precedent for Obama's job and economy destroying Cross State Air Pollution Rule. Still another is Edward Krenick, another former Bush EPA supporter of cap and trade. No wonder highly active global warming skeptic James Taylor says that Romney's people on global warming are as bad as Obama's people. Moreover, while Gingrich was the lead witness testifying against cap and trade in Congress, Romney has little to say on the issue, and no history of fighting against it. A central theme of the Gingrich campaign recently has been to emphasize the enormous store of American energy, especially fossil fuel oil and gas, that must be fully tapped without reservation, providing the foundation for another historic economic boom, which Gingrich projects would slash the price of gasoline below \$2.50 a gallon. Romney responds by saying this theme is just pandering to gas price hysteria. In addition, while Gingrich calls for replacing the Environmental Protection Agency entirely with a new Environmental Solutions Agency, with a pro-growth mandate of working with business to protect the environment while maximizing jobs and economic growth, Romney opposes abolishing or structurally changing the EPA. The only hope for reviving cap and trade is for a newly elected Republican President to propose it, undercutting Congressional Republican opposition to it. Conservatives will rue allowing Romney a pass to the nomination if he turns out to be that guy.

Domestic topics are ruined by the states counterplan

The sentiment expressed on CEDA Forums that the States Counterplan is “stifling domestic topics” certainly has some merit. That said, States-Lopez strategies are probably not entirely going to disappear from the Negative arsenal overnight.

Irrespective of how the legitimacy of the States Counterplan theory plays out in practice, Affs will also desire a non-theoretical angle against those strategies. Energy has much potential for the Aff in that regard.

Federal Land and policy significantly impacts production

IER '12 (Institute for Energy Research – Jan 20th – “Fact Checking President Obama’s Claims About Domestic Energy Production” – <http://www.instituteforenergyresearch.org/2012/01/20/fact-checking-president-obamas-claims-about-domestic-energy-production/>)

The reality is that oil production on federal lands is falling, while production on private and state lands is rising.[2] There is a long term trend of decreasing oil production on federal lands. In fact, oil production on federal lands has fallen by 43 percent over the past 9 years according to the Obama administration’s Energy Information Administration.[3] And it has dropped rapidly on President Obama’s watch. In fact, because of the actions taken by the Obama administration such as severely limiting the offshore areas where oil can be produced, cancelling oil leases, and withdrawing other oil leases, oil production on federal lands will most likely continue to fall. (More of the Obama administration’s anti-energy actions can be found here.) Not only is the Obama administration making it more difficult to produce energy on federal lands, they are leasing much less lands than the past. The following chart shows the decline in leasing on onshore lands over the past 30 years. This lack of leasing on federal lands will only result in lower production on federal lands in the future.

Federal Lands questions are germane to renewable and non-renewable energy sectors.

Vann '12 Adam Vann, Legislative Attorney, Congressional Research Service. CRS Report – Energy Projects on Federal Lands: Leasing and Authorization – February 1, 2012 – <http://www.fas.org/sgp/crs/misc/R40806.pdf>

Recent concerns over energy supply and pricing have led some to look increasingly to federal lands as a potential energy source. This report explains the legal framework for energy leasing and permitting for onshore lands subject to the control of the federal government. The report first reviews the laws and regulations affecting leasing of federal lands for exploration and production of oil, natural gas, and coal, as well as the permits that lessees must obtain in order to explore for and produce these resources. This leasing process has evolved over the last century under the framework established by the Mineral Leasing Act of 1920 (MLA). Oil, natural gas, and coal leasing and production on federal land pursuant to this act are currently overseen by the Bureau of Land Management (BLM), an agency within the U.S. Department of the Interior (DOI). Federal lands identified in the area’s Resource Management Plan (RMP) as amenable to oil, coal, or natural gas exploration and production may be leased by BLM, so long as such activities in that area are not prohibited by statute or regulation. Such lands are usually leased to the highest bidder as determined by competitive auction. Leaseholders are generally required to pay both

rental fees and royalties (a percentage of the value of produced oil, natural gas, or coal) to the U.S. government. The report also addresses existing laws and regulations that govern the use of federal lands for renewable energy projects, including geothermal, wind, and solar energy. BLM oversees permitting for these projects. Geothermal projects are leased in accordance with the requirements of the Geothermal Steam Act of 1970. That act functions similarly to the MLA; lands that are amenable to geothermal projects are leased to the highest qualified bidder. In contrast, wind and solar projects on federal lands are not authorized by leases, but rather by obtaining a right-of-way from BLM. These rights-of-way are issued pursuant to the requirements of Title V of the Federal Land Policy and Management Act (FLPMA), and holders of these rights-of-way must make monthly rental payments to the U.S. government.

Federal Lands matter to energy prices

Russell '12 (Johnny – IER staff – Institute for Energy Reports – Thinking Strategically about Petroleum Reserves Trapped off our Coasts Oil— Feb 29th – <http://www.instituteforenergyresearch.org/2012/02/29/get-real-obama-the-spr-is-trapped-off-our-coasts/>)

Our offshore energy resources should be the real strategic petroleum reserve. But less than 3 percent of offshore areas are currently leased for for energy production. As gas prices continue to climb, the Obama administration claims its hands are tied and there's no immediate relief for Americans. Yet behind closed doors, Obama is considering a political band-aid with a release from the Strategic Petroleum Reserve (SPR). This is not strategic and would represent an abuse of the SPR for political gain, as was the case this past summer when Obama pointed blame at Libya for the limp economy and released 30 million barrels of oil from the SPR. But what would a real strategy that benefits the country and hard-working Americans look like?. If President Obama is serious about bringing down gas prices and setting a course for an affordable energy future, he will lead the effort to tear down government barriers to our vast, yet untapped natural resources. But in area after area, this administration has worked to increase the price of energy and reduce access to domestic energy resources. Fortunately, strong leaders representing Gulf Coast communities are pushing back against the administration's anti-energy agenda. Just yesterday, Senator Mary Landrieu (D-La.) blasted Interior Secretary Ken Salazar at a hearing, citing the Obama administration's abysmal record granting drilling permits for the Gulf of Mexico. The administration claims that the President's policies have opened new areas for drilling in the Gulf, but Senator Landrieu reminded Salazar that the biggest gulf in this administration's record is the one that exists between rhetoric and reality. Indeed, it seems that the President's strategy is to offer warm words to the American public and domestic oil and gas producers, while simultaneously regulators at the EPA and Department of Interior limit real access and production. The fact that a meager 3 percent of federal lands are currently leased for energy production mitigates any claim that the administration has about a pro-energy plan.

Irrespective of Federal Land issues, Federal policy simply drives energy markets

Jordan-Korte '10 Katrin Jordan-Korte – Energiemarktanalyse, Erneuerbare Energien, WTO, Internationaler Handel – has degrees from Freie Universität Berlin, American University, Yale University – Government Promotion of Renewable Energy Technologies: Policy Approaches and Market Development in Germany, the United States, and Japan – page 83

4.2.2 Renewable Energy Policy Instruments at the Federal Level

Federal promotion of renewable energy sources had its beginning in the 1970s and 1980s as a reaction to the oil price hikes of the 1970s and was motivated by energy security concerns. National energy security has been an important driver of US energy policy for decades." Since

President Richard Nixon has first called for his "project independence" in 1973. almost all US presidents have repeated this goal.² In 2006. former US President Bush even spoke of the United States* "addiction" to oil; a term that so far had only been used by critics of the US energy policy and its high reliance on fossil fuels."³ In official publications on renewable energy, energy security is most often named as the most important driver of federal renewable energy programs.^{2,8} The other two objectives of (renewable) energy policy, economic development and the protection of the climate and the environment, rate slightly lower than energy security concerns in US (renewable) energy policy.