### 1NC

#### First off is Immigration –

#### It will pass, Obama’s pushing, and it’s a top priority

Global Times 2-20 (Obama reaches out to GOP on immigration, <http://www.globaltimes.cn/content/762877.shtml>)

US President Barack Obama on Tuesday reached out to Republican lawmakers, calling to discuss comprehensive immigration reform, said the White House. According to a White House statement, Obama placed calls to Senators Lindsey Graham, John McCain and Marco Rubio to discuss "their shared commitment to bipartisan, commonsense immigration reform." The senators were key members of the so-called Gang of 8, which was working to overhaul the immigration system. During the calls, Obama "reiterated that he remains supportive of the effort underway in Congress, and that he hopes that they can produce a bill as soon as possible that reflects shared core principles on reform." Obama also said the reforms need to include strengthening border security, creating an earned path to citizenship, holding employers accountable, and streamlining legal immigration. The White House also said Obama is "prepared to submit his own legislation if Congress fails to act." The Gang of 8 is working to get a bill to the Senate floor as early as May. In a statement, Rubio spokesman Alex Conant said the Florida senator "appreciated receiving President Obama's phone call to discuss immigration reform," and told Obama that he "feels good about the ongoing negotiations in the Senate, and is hopeful the final product is something that can pass the Senate with strong bipartisan support." Earlier in the day, White House Press Secretary Jay Carney was questioned repeatedly during a briefing about whether Obama had personally contacted Republican lawmakers on immigration reform, a top priority on the president's second term agenda.

#### Thorium causes massive backlash

Niiler 12 Eric is a health and science writer at the Washington Post. “Nuclear power entrepreneurs push thorium as a fuel,” Feb 20, http://www.washingtonpost.com/national/health-science/nuclear-power-entrepreneurs-push-thorium-as-a-fuel/2011/12/15/gIQALTinPR\_story.html?wprss=rss\_national

Although the idea of thorium power has been around for decades — and some countries are planning to build thorium-powered plants — it has not caught on with the companies that design and build nuclear plants in the United States or with the national research labs charged with investigating future energy sources.¶ **“There are small boatloads of fanatics on thorium that don’t see the downsides**,” said Dan Ingersoll, senior project manager for nuclear technology at the Oak Ridge National Laboratory in Tennessee. For one thing, he said, it would betoo expensive to replace or convert the nuclear power plants already running in this country: “A thorium-based fuel cycle has some advantages, but **it’s not compelling for infrastructure and investments.”**¶ He also pointed out that thorium would still have some radioactive byproducts — just not as much as uranium and not as long-lived — and that there is no ready stockpile of thorium in the United States. It would have to be mined.¶ Overall, he says the benefits don’t outweigh the huge costs of switching technologies. “I’m looking for something compelling enough to trash **billions of dollars of infrastructure** that we have already and I don’t see that.”¶ Thorium advocates such as Kirk Sorensen, a former NASA engineer who is now chief executive of Huntsville, Ala.-based Flibe Energy, are not deterred.¶ “We recognize this is a new and different technology, and developing it is significantly different from the existing nuclear industry,” Sorensen said. “Part of **the problem is that nuclear only means one thing in the** public and **[U.S.] government’s mind.”**¶ Thorium exists in the ground as thorium oxide and is three to four times as abundant worldwide as uranium, according to a 2005 report from the International Atomic Energy Agency. Thorium is less radioactive than uranium, and it emits alpha particles, which are less biologically harmful than uranium’s gamma particles. That makes thorium easier to store safely.¶ With an extremely high melting point (over 6,000 degrees), thorium has been used in portable gas lanterns, high-temperature ceramic products and aerospace applications. But because of its radioactivity and the development of alternative materials, most uses of the element were phased out.¶ Once a working experiment¶ Half a century ago, however, the United States was taking a serious look at thorium as a nuclear fuel. It was used at a molten-salt reactor that government scientists built and ran from 1965 to 1969 at Oak Ridge.¶ But after India detonated a nuclear bomb in 1974 with plutonium extracted from a reactor designed for non-weapons use, fears of proliferation convinced successive U.S. administrations to cut back on experimental nuclear programs. The thorium-fuel project was mostly forgotten. Instead, all subsequent nuclear plants were designed to use uranium, the fuel that powers all 104 reactors operating in the United States today.¶ Almost all the U.S. plants are at least 25 years old; some are approaching 50. With the federal government unable to come up with a permanent waste disposal site, spent fuel rods — which remain radioactive for thousands of years — are piling up at each reactor site.¶ Nevertheless, utilities have been preparing to build 20 to 30 similar reactors to replace the older ones. (Earlier this month, the Nuclear Regulatory Commission approved Atlanta-based Southern Co.’s proposal to build two such reactors in Georgia. )¶ For the past few years, Sorensen has been trying to convince them to build LFTRs instead. He posts technical documents from the Oak Ridge thorium reactor on his blog, Energy from Thorium. Last year, he left his day job at Teledyne Brown Engineering to start Flibe, the name of which is derived from the mixture of fluoride, lithium and beryllium salts used in a LFTR.¶ “We can look back to Oak Ridge,” he says, to “rebuild the capability that existed in 1974.”¶ Sorensen says a LFTR using a mixture of thorium as a fuel plus either uranium or plutonium to kick-start the reaction could produce higher core temperatures at lower pressures than steam reactors, meaning it would not need as many safety and cooling systems.¶ Even better, he says, LFTRs could be configured to consume the spent fuel that is sitting around the country at nuclear sites.¶ Other entrepreneurs are taking a different tack. McLean-based Lightbridge wants to mix thorium and uranium to slightly boost the output of existing nuclear plants. Lightbridge is helping the Russian government build such a program, said Seth Grae, the company’s president and chief executive.¶ But most U.S. nuclear energy industry executives are wary of both approaches to thorium, saying that neither utilities nor investors are eager to gamble on an unfamiliar technology.

#### Immigration reform generates an effective base of IT experts.

**McLarty 9** (Thomas F. III, President – McLarty Associates and Former White House Chief of Staff and Task Force Co-Chair, “U.S. Immigration Policy: Report of a CFR-Sponsored Independent Task Force”, 7-8, http://www.cfr.org/ publication/19759/us\_immigration\_policy.html)

We have seen, when you look at the table of the top 20 firms that are H1-B visa requestors, at least 15 of those are IT firms. And as we're seeing across industry, much of the hardware and software that's used in this country is not only manufactured now overseas, but it's developed overseas by scientists and engineers who were educated here in the United States. We're seeing a lot more activity around cyber-security, certainly noteworthy attacks here very recently. It's becoming an increasingly dominant set of requirements across not only to the Department of Defense, but the Department of Homeland Security and the critical infrastructure that's held in private hands. Was there any discussion or any interest from DOD or DHS as you undertook this review on the security things about what can be done to try to generate a more effective group of IT experts here in the United States, many of which are coming to the U.S. institutions, academic institutions from overseas and often returning back? This potentially puts us at a competitive disadvantage going forward. MCLARTY: Yes. And I think your question largely is the answer as well. I mean, clearly we have less talented students here studying -- or put another way, more talented students studying in other countries that are gifted, talented, really have a tremendous ability to develop these kind of technology and scientific advances, we're going to be put at an increasingly disadvantage. Where if they come here -- and I kind of like Dr. Land's approach of the green card being handed to them or carefully put in their billfold or purse as they graduate -- then, obviously, that's going to strengthen, I think, our system, our security needs.

#### That deters and solves the impact to cyberattacks

**Saydjari 8** (O. Sami, Cyber Defense Agency, LLC, “Structuring for Strategic Cyber Defense: A Cyber Manhattan Project Blueprint”, 2008 Annual Computer Security Applications Conference, http://www.acsac.org/2008/program /keynotes/saydjari.pdf)

As a step toward a security research plan that includes such capabilities, we should identify endstates— goals in terms of how we want our systems to ideally operate. This fresh perspective includes the overall strategic picture and connects clearly with strategic actions that significantly mitigate strategic vulnerabilities. If, for example, the nation has a capability to quickly recover its critical information infrastructure, then the end-state is that strategic attack damages are mitigated and critical services are restored quickly, possibly deterring adversaries from attempting a future attack. Desired End-States. The National Cyber Defense Initiative (NCDI) Opening Moves Workshop [4] identified important end-states, the outcome of a 10- year research effort to create critical capabilities. The following end-states appear in the workshop proceedings: --Continuity of Critical Information Infrastructure Operations. Create technology that would be the basis for a resilient US cyber infrastructure that would sustain critical functions in the face of attacks, including those that could be affected by determined adversaries. --Well-Defended Critical Assets. Make it economically prohibitive for an adversary to cause strategic damage to critical US infrastructures. Currently, adversaries can attack critical systems without investing substantial resources.

#### Cyberterrorism will cause accidental launch that triggers the Dead Hand and nuclear war

**Fritz 9** (Jason, BS – St. Cloud, “Hacking Nuclear Command and Control”, Study Commissioned on Nuclear Non-Proliferation and Disarmament, July, www.icnnd.org/Documents/Jason\_Fritz\_Hacking\_NC2.doc)
*Direct control of launch*
The US uses the two-man rule to achieve a higher level of security in nuclear affairs. Under this rule two authorized personnel must be present and in agreement during critical stages of nuclear command and control. The President must jointly issue a launch order with the Secretary of Defense; Minuteman missile operators must agree that the launch order is valid; and on a submarine, both the commanding officer and executive officer must agree that the order to launch is valid. In the US, in order to execute a nuclear launch, an Emergency Action Message (EAM) is needed. This is a preformatted message that directs nuclear forces to execute a specific attack. The contents of an EAM change daily and consist of a complex code read by a human voice. Regular monitoring by shortwave listeners and videos posted to YouTube provide insight into how these work. These are issued from the NMCC, or in the event of destruction, from the designated hierarchy of command and control centres. Once a command centre has confirmed the EAM, using the two-man rule, the Permissive Action Link (PAL) codes are entered to arm the weapons and the message is sent out. These messages are sent in digital format via the secure Automatic Digital Network and then relayed to aircraft via single-sideband radio transmitters of the High Frequency Global Communications System, and, at least in the past, sent to nuclear capable submarines via Very Low Frequency (Greenemeier 2008, Hardisty 1985). The technical details of VLF submarine communication methods can be found online, including PC-based VLF reception. Some reports have noted a Pentagon review, which showed a potential “electronic back door into the US Navy’s system for broadcasting nuclear launch orders to Trident submarines” (Peterson 2004). The investigation showed that cyber terrorists could potentially infiltrate this network and insert false orders for launch. The investigation led to “elaborate new instructions for validating launch orders” (Blair 2003). Adding further to the concern of cyber terrorists seizing control over submarine launched nuclear missiles; The Royal Navy announced in 2008 that it would be installing a Microsoft Windows operating system on its nuclear submarines (Page 2008). The choice of operating system, apparently based on Windows XP, is not as alarming as the advertising of such a system is. This may attract hackers and narrow the necessary reconnaissance to learning its details and potential exploits. It is unlikely that the operating system would play a direct role in the signal to launch, although this is far from certain. Knowledge of the operating system may lead to the insertion of malicious code, which could be used to gain accelerating privileges, tracking, valuable information, and deception that could subsequently be used to initiate a launch. Remember from Chapter 2 that the UK’s nuclear submarines have the authority to launch if they believe the central command has been destroyed. Attempts by cyber terrorists to create the illusion of a decapitating strike could also be used to engage fail-deadly systems. Open source knowledge is scarce as to whether Russia continues to operate such a system. However evidence suggests that they have in the past. Perimetr, also known as Dead Hand, was an automated system set to launch a mass scale nuclear attack in the event of a decapitation strike against Soviet leadership and military. In a crisis, military officials would send a coded message to the bunkers, switching on the dead hand. If nearby ground-level sensors detected a nuclear attack on Moscow, and if a break was detected in communications links with top military commanders, the system would send low-frequency signals over underground antennas to special rockets. Flying high over missile fields and other military sites, these rockets in turn would broadcast attack orders to missiles, bombers and, via radio relays, submarines at sea. Contrary to some Western beliefs, Dr. Blair says, many of Russia's nuclear-armed missiles in underground silos and on mobile launchers can be fired automatically. (Broad 1993) Assuming such a system is still active, cyber terrorists would need to create a crisis situation in order to activate Perimetr, and then fool it into believing a decapitating strike had taken place. While this is not an easy task, the information age makes it easier. Cyber reconnaissance could help locate the machine and learn its inner workings. This could be done by targeting the computers high of level official’s—anyone who has reportedly worked on such a project, or individuals involved in military operations at underground facilities, such as those reported to be located at Yamantau and Kosvinksy mountains in the central southern Urals (Rosenbaum 2007, Blair 2008) Indirect Control of Launch Cyber terrorists could cause incorrect information to be transmitted, received, or displayed at nuclear command and control centres, or shut down these centres’ computer networks completely. In 1995, a Norwegian scientific sounding rocket was mistaken by Russian early warning systems as a nuclear missile launched from a US submarine. A radar operator used Krokus to notify a general on duty who decided to alert the highest levels. Kavkaz was implemented, all three chegets activated, and the countdown for a nuclear decision began. It took eight minutes before the missile was properly identified—a considerable amount of time considering the speed with which a nuclear response must be decided upon (Aftergood 2000). Creating a false signal in these early warning systems would be relatively easy using computer network operations. The real difficulty would be gaining access to these systems as they are most likely on a closed network. However, if they are transmitting wirelessly, that may provide an entry point, and information gained through the internet may reveal the details, such as passwords and software, for gaining entrance to the closed network. If access was obtained, a false alarm could be followed by something like a DDoS attack, so the operators believe an attack may be imminent, yet they can no longer verify it. This could add pressure to the decision making process, and if coordinated precisely, could appear as a first round EMP burst. Terrorist groups could also attempt to launch a non-nuclear missile, such as the one used by Norway, in an attempt to fool the system. The number of states who possess such technology is far greater than the number of states who possess nuclear weapons. Obtaining them would be considerably easier, especially when enhancing operations through computer network operations. Combining traditional terrorist methods with cyber techniques opens opportunities neither could accomplish on their own. For example, radar stations might be more vulnerable to a computer attack, while satellites are more vulnerable to jamming from a laser beam, thus together they deny dual phenomenology. Mapping communications networks through cyber reconnaissance may expose weaknesses, and automated scanning devices created by more experienced hackers can be readily found on the internet. Intercepting or spoofing communications is a highly complex science. These systems are designed to protect against the world’s most powerful and well funded militaries. Yet, there are recurring gaffes, and the very nature of asymmetric warfare is to bypass complexities by finding simple loopholes. For example, commercially available software for voice-morphing could be used to capture voice commands within the command and control structure, cut these sound bytes into phonemes, and splice it back together in order to issue false voice commands (Andersen 2001, Chapter 16). Spoofing could also be used to escalate a volatile situation in the hopes of starting a nuclear war. “ \*\*[they cut off the paragraph]\*\* “In June 1998, a group of international hackers calling themselves Milw0rm hacked the web site of India’s Bhabha Atomic Research Center (BARC) and put up a spoofed web page showing a mushroom cloud and the text “If a nuclear war does start, you will be the first to scream” (Denning 1999). Hacker web-page defacements like these are often derided by critics of cyber terrorism as simply being a nuisance which causes no significant harm. However, web-page defacements are becoming more common, and they point towards alarming possibilities in subversion. During the 2007 cyber attacks against Estonia, a counterfeit letter of apology from Prime Minister Andrus Ansip was planted on his political party website (Grant 2007). This took place amid the confusion of mass DDoS attacks, real world protests, and accusations between governments.

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#### Text: the fifty state governments of the United States should increase establish a matching funds program to develop and build a Liquid Fluoride Thorium Nuclear Reactor in federal laboratories

#### States solves upfront capital costs of nuclear power

Yanosek 12 (Kassia, Entrepreneur-in-Residence – Stanford University’s Steyer-Taylor Center for Energy Policy and Finance, “Financing Nuclear Power in the US,” Stanford Energy Journal, Spring, http://energyclub.stanford.edu/index.php/Journal/Financing\_Nuclear\_Power\_by\_Kassia\_Yanosek)

Furthermore, capital costs are inherently high, ranging in the billions or tens of billions of dollars, and are compounded by financing charges during long construction times. Without government support, financing nuclear is currently not possible in the capital markets. Recently, Constellation Energy and NRG separately pulled the plug on new multi-billion dollar plants, citing financing problems. Projects, however, will get done on a one-off basis. Southern Company’s Vogtle Plant in Eastern Georgia is likely to be the sponsor of the first new generation to be constructed, taking advantage of local regulatory and federal support. Two new reactors of next-generation technology are in the permitting stage, which will bring online 2,200 megawatts (MW) of new capacity, and will cost $14 billion. The project will take advantage of tax credits and loan guarantees provided in the 2005 Energy Policy Act. What is the ideal financial structure for funding new nuclear generation? The simplest answer is “through the rate base.” This is typically accomplished by state-level legislation which allows utilities to pass the construction costs through to the ratepayers. The ideal mechanism, which exists in a few states, allows the utility to raise rates during plant construction and adjust rates periodically for delays or cost overruns. However, this structure is not possible in most markets. California, for example, has a moratorium where utilities are not legislatively authorized to recover rates for nuclear development. And even with a regulated territory, utilities often require additional financing to raise sufficient up-front funds for construction or to mitigate risks in markets where cost recovery through the rate base is not assured. Another option, which could be a complementary solution, is a project finance model, in which debt is raised at the project level and backstopped by long-term contracts with creditworthy parties. Even this would be complex, since project financing would require finding a suite of investors willing to take on the different risk/return profiles that exist at different stages of the project. In addition, federal and/or state-based financial support designed specifically for nuclear would still be critical.

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#### Interpretation – Nuclear production must have the primary purpose of energy generation

IAEA 7 (International Atomic Energy Agency, “IAEA Safety Glossary,” http://www-pub.iaea.org/MTCD/publications/PDF/Pub1290\_web.pdf

The process of inducing radioactivity. L Most commonly used to refer to the induction of radioactivity in moderators, coolants, and structural and shielding materials, caused by irradiation with neutrons. L The BSS definition — “The production of radionuclides by irradiation.” [1] — is technically adequate; however, the term ‘production’ gives a connotation that this is **being done intentionally** rather than, as is normally the case, incidentally.

#### Violation – demonstration reactors gets class 104 licenses – that’s research, not production

Mazuzan and Walker 85 (George T., Assistant Professor of History – State University of New York at Geneseo, and J. Samuel, Historian – United States Nuclear Regulatory Commission, *Controlling the Atom: The Beginnings of Nuclear Regulation, 1946-1962*, Google Books, p. 70)

Sections of the 1954 act reflected the state of the technology by establishing two classes of licenses for atomic facilities. One section authorized the AEC to issue commercial or "class 103" licenses (after the section number in the law) whenever it had determined that a facility had been "sufficiently developed to be of practical value for industrial or commercial purposes." Since the agency and the Joint Committee interpreted "practical value" to mean that atomic facilities had to be judged eco- nomically competitive with other energy sources, issuance of class-103 licenses was postponed until the industry had passed through its research and development phase.33 Instead, early power reactor facilities received "class-104" licenses un- der the terms of section 104. Reactors used in medical therapy, university research, and power demonstration came under this category. A key phrase authorized reactor licenses that would lead to the "demonstra- tion of the practical value . . . for industrial or commercial purposes." Class-104 licenses, then, covered all power reactors used during the developmental period until the industry could find a design that would eventually meet the "practical value" criterion of a class-103 commercial license. Furthermore, section 104 specifically instructed the AEC to im- pose the minimum amount of regulation on a licensee consistent with the public health and safety. In other words, a class-104 license indicated that the government wanted to encourage the new industry to undertake research and development under minimum regulation that would lead to major advances in power-reactor technology.34

#### Prefer our interp –

#### A. Limits and precision – research reactors are both formally and technically distinct. There are HUNDREDS of types

WNA 11 (World Nuclear Association, “Research Reactors,” October, <http://www.world-nuclear.org/info/inf61.html>)

Many of the world's nuclear reactors are used for research and training, materials testing, or the production of radioisotopes for medicine and industry. They are basically neutron factories.

These are much smaller than power reactors or those propelling ships, and many are on university campuses. There are about 240 such reactors operating, in 56 countries. Some operate with high-enriched uranium fuel, and international efforts are underway to substitute low-enriched fuel. Some radioisotope production also uses high-enriched uranium as target material for neutrons, and this is being phased out in favour of low-enriched uranium. Research reactors comprise a wide range of civil and commercial nuclear reactors which are generally not used for power generation. The term is used here to include test reactors, which are more powerful than most. The primary purpose of research reactors is to provide a neutron source for research and other purposes. Their output (neutron beams) can have different characteristics depending on use. They are small relative to power reactors whose primary function is to produce heat to make electricity. They are essentially net energy users. Their power is designated in megawatts (or kilowatts) thermal (MWth or MWt), but here we will use simply MW (or kW). Most range up to 100 MW, compared with 3000 MW (i.e. 1000 MWe) for a typical power reactor. In fact the total power of the world's 283 research reactors is little over 3000 MW.Research reactors are simpler than power reactors and operate at lower temperatures. They need far less fuel, and far less fission products build up as the fuel is used. On the other hand, their fuel requires more highly enriched uranium, typically up to 20% U-235, although some older ones use 93% U-235. They also have a very high power density in the core, which requires special design features. Like power reactors, the core needs cooling, though only the higher-powered test reactors need forced cooling. Usually a moderator is required to slow down the neutrons and enhance fission. As neutron production is their main function, most research reactors also need a reflector to reduce neutron loss from the core.As of October 2011 the IAEA database showed that there were 241 operational research reactors (92 of them in developing countries), 3 under construction, 202 shut down (plus 13 temporary) and 211 decommissioned.Types of research reactors There is a much wider array of designs in use for research reactors than for power reactors, where 80% of the world's plants are of just two similar types. They also have different operating modes, producing energy which may be steady or pulsed.A common design (67 units) is the pool type reactor, where the core is a cluster of fuel elements sitting in a large pool of water. Among the fuel elements are control rods and empty channels for experimental materials. Each element comprises several (e.g. 18) curved aluminium-clad fuel plates in a vertical box. The water both moderates and cools the reactor, and graphite or beryllium is generally used for the reflector, although other materials may also be used. Apertures to access the neutron beams are set in the wall of the pool. Tank type research reactors (32 units) are similar, except that cooling is more active.The TRIGA reactor is another common design (40 units). The core consists of 60-100 cylindrical fuel elements about 36 mm diameter with aluminium cladding enclosing a mixture of uranium fuel and zirconium hydride (as moderator). It sits in a pool of water and generally uses graphite or beryllium as a reflector. This kind of reactor can safely be pulsed to very high power levels (e.g. 25,000 MW) for fractions of a second. Its fuel gives the TRIGA a very strong negative temperature coefficient, and the rapid increase in power is quickly cut short by a negative reactivity effect of the hydride moderator.Other designs are moderated by heavy water (12 units) or graphite. A few are fast reactors, which require no moderator and can use a mixture of uranium and plutonium as fuel. Homogenous type reactors have a core comprising a solution of uranium salts as a liquid, contained in a tank about 300 mm diameter. The simple design made them popular early on, but only five are now operating.Research reactors have a wide range of uses, including analysis and testing of materials, and production of radioisotopes. Their capabilities are applied in many fields, within the nuclear industry as well as in fusion research, environmental science, advanced materials development, drug design and nuclear medicine.The IAEA lists several categories of broadly classified research reactors. They include 60 critical assemblies (usually zero power), 23 test reactors, 37 training facilities, two prototypes and even one producing electricity. But most (160) are largely for research, although some may also produce radioisotopes. As expensive scientific facilities, they tend to be multi-purpose, and many have been operating for more than 30 years.A total of over 670 research and test reactors has been built worldwide, 227 of these in the USA and 97 in the former Soviet Union. In the USA, 193 were commissioned in 1950s and 1960s.

#### B. Ground – they move the primary purpose from “production and commercialization” to “demonstration” – that creates dozens of distinct advantages while shielding DAs that are based off production.

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#### **The 1AC’s linking of energy production with national security creates a political impulse to secure – that makes unending resource wars inevitable**

Martens 11 (Emily, MA in Geography and Regional Studies – University of Miami, “The Discourses of Energy and Environmental Security in the Debate Over Offshore Oil Drilling Policy in Florida,” Open Access Theses, 5-10, http://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=1253&context=oa\_theses)

The term energy security has become an engrained and seemingly unquestioned term within the contemporary political arena since earlier articulation under President Carter. The definition of the term seems to change according to shifting agendas and the socio-political zeitgeist, as evidenced in the previous historical narrative. In the United States energy security has encompassed a plethora of meanings that are the result of divergent understandings of the functioning of political and economic structures, as well as the social or ‘national’ significance of key energy resources, such as oil (Barton et al. 2004). From the consumer standpoint, oil (or in its refined form as gasoline), particularly cheap oil, is not simply the fuel for transportation and production, but also a signifier of the “American Way of Life”, a symbol of American exceptionalism and status within the global community (Huber 2009; Moran and Russell 2009). Traditionally, security has been conceptualized in terms of border protection, as well as the protection and promotion of ideologies and values both domestically and abroad. In reference to Foucault, Dalby alleges that there is a “political impulse to secure” through the invocation of “effective discourses of danger… contained within widely shared geopolitical imaginaries”, which serve to unify identities and justify State action (Dalby 2002: 146). Here it is a national identity contained within the discourse of energy security, and the popular rhetoric of “drill, baby, drill” that manages to **thwart environmental sustainability efforts**, thereby increasing incentives to expand domestic drilling sites. Resources have, historically, been at the heart of many quarrels, whereby certain types of natural resources available only in specific areas, **become essential ingredients for the productive process**. An adequate supply of these resources must be assured, and so the commercial tentacles of the productive unit must expand, until in some instances it draws upon supplies extracted from every corner of the planet. Inasmuch as every productive unit becomes dependent upon its sources of raw materials, every actual or potential denial of access to them represents a threat to the maintenance of that unit and to the well-being of its beneficiaries (Leiss 1994:156-157). Therefore, state security begins to encompass the productive process to ensure access to those resources which have become embedded within the daily functioning of the State’s commercial, social and political activities. The State security apparatus, therefore, must step in to protect and ensure sufficient access to oil as a means of ensuring its own survival and economic wellbeing (Barton et al. 2004; Muller-Kraener 2008; Ciuta 2010). The term security, therefore, “does not refer to an external, objective reality, but establishes a security situation by itself. It is the enunciation of the signifier which constitutes an (in)security condition…organiz[ing] social relations into security relations” for the purpose of protecting State interests (Dalby 2002: 12). The discourse of US energy security operates under the pretense of national security interests to ensure the protection and sufficient flow of key resources. Now whether an actually supply problem or political motives dictate the decision to create another offshore well is often difficult to determine. However, after the terrorist attacks of 9/11 the nationalistic, “Buy American” political sentiment increased drastically, with some gas stations claiming to sell only domestic, or “terrorist-free”, oil, thus creating an incentive to increase domestic 55 production in one of the few remaining spaces for extraction and production: the outer continental shelf (Huber 2009). In a senatorial hearing for the US Committee on Foreign Relations conducted in May 2009, Senator John Kerry concluded that the current US energy schema, which is heavily dependent upon oil, is unsustainable. The main complications include [1] the ‘transfer of American wealth to oil-exporting nations’, as a result of limited domestic supply; [2] a vulnerability to oil price shocks; [3] increased federal expenses created by an obligation of ‘our military to defend our energy supply in volatile regions around the world’; [4] the recent implications of ‘global terror, funded directly by our expenditures on oil; and [5] global climate change which is perpetuated by the burning of fossil fuels (Kerry 2009, May 12). Energy independence, accordingly, is supposed to secure the US from the aforementioned threats by creating a domestic energy supply capable of maintaining the infrastructure dependent upon a constant and cheap supply of energy resources. In addition the perceived threats under Carter’s initial articulation of energy security, Kerry adds the threats of oil-funded terrorism – as a reaction to the terrorist attacks on 9/11, where the known terrorists were citizens of Saudi Arabia, the largest oil producer in the world – and the environmental threat of global climate change. The addition of terrorist free oil to the energy security agenda brings energy security discourse into the present, by identifying a new and tangible threat. Since there had not been a significant energy crisis since the 1970s there seemed to be less urgency surrounding an energy security discourse that promoted energy independence. The establishment of the International Energy Agency by the Organization for Economic Cooperation and Development (OECD), managed to insulate member countries from 56 such a crisis by way of stockpiling oil resources to be used in an emergency and establishing procedures to follow in case there was a shortage in the oil supply. Due to a decrease in the threat posed by a major oil crisis such as that experienced in the 1970s, the position that oil imports constrained and threatened political and economic independence appears to have lost a bit of weight. Following the events of 9/11, however, the impetus to once again protect the nation from the threats posed by imported oil, which now include oil-funded terrorism, was on the table, and energy independence, which includes an expansion of offshore oil drilling, had a new reference point to play on fear and gain consent.

#### Causes global destruction

**Der Derian 98** (James, Professor of Political Science – University of Massachusetts, On Security, Ed. Lipschutz, p. 24-25)

No other concept in international relations packs the metaphysical punch, nor commands the disciplinary power of "security." In its name, peoples have alienated their fears, rights and powers to gods, emperors, and most recently, sovereign states, all to protect themselves from the vicissitudes of nature--as well as from other gods, emperors, and sovereign states. In its name, weapons of mass destruction have been developed which have transfigured national interest into a security dilemma based on a suicide pact. And, less often noted in international relations, in its name billions have been made and millions killed while scientific knowledge has been furthered and intellectual dissent muted. We have inherited an ontotheology of security, that is, an a priori  argument that proves the existence and necessity of only one form of security because there currently happens to be a widespread, metaphysical belief in it. Indeed, within the concept of security lurks the entire history of western metaphysics, which was best described by Derrida "as a series of substitutions of center for center" in a perpetual search for the "transcendental signified." Continues... [7](http://libcat1.cc.emory.edu:32888/20050307122932441313c0%3Dwww.ciaonet.org%3A80/book/lipschutz/lipschutz12.html#note7) In this case, Walt cites IR scholar Robert Keohane on the hazards of "reflectivism," to warn off anyone who by inclination or error might wander into the foreign camp: "As Robert Keohane has noted, until these writers `have delineated . . . a research program and shown . . . that it can illuminate important issues in world politics, they will remain on the margins of the field.' " [8](http://libcat1.cc.emory.edu:32888/20050307122932441313c0%3Dwww.ciaonet.org%3A80/book/lipschutz/lipschutz12.html%22%20%5Cl%20%22note8) By the end of the essay, one is left with the suspicion that the rapid changes in world politics have triggered a "security crisis" in security studies that requires extensive theoretical damage control. What if we leave the desire for mastery to the insecure and instead imagine a new dialogue of security, not in the pursuit of a utopian end but in recognition of the world as it is, other than us ? What might such a dialogue sound like? Any attempt at an answer requires a genealogy: to understand the discursive power of the concept, to remember its forgotten meanings, to assess its economy of use in the present, to reinterpret--and possibly construct through the reinterpretation--a late modern security comfortable with a plurality of centers, multiple meanings, and fluid identities. The steps I take here in this direction are tentative and preliminary. I first undertake a brief history of the concept itself. Second, I present the "originary" form of security that has so dominated our conception of international relations, the Hobbesian episteme of realism. Third, I consider the impact of two major challenges to the Hobbesian episteme, that of Marx and Nietzsche. And finally, I suggest that Baudrillard provides the best, if most nullifying, analysis of security in late modernity. In short, I retell the story of realism as an historic encounter of fear and danger with power and order that produced four realist forms of security: epistemic, social, interpretive, and hyperreal. To preempt a predictable criticism, I wish to make it clear that I am not in search of an "alternative security." An easy defense is to invoke Heidegger, who declared that "questioning is the piety of thought." Foucault, however, gives the more powerful reason for a genealogy of security: I am not looking for an alternative; you can't find the solution of a problem in the solution of another problem raised at another moment by other people. You see, what I want to do is not the history of solutions, and that's the reason why I don't accept the word alternative. My point is not that everything is bad, but that everything is dangerous, then we always have something to do. The hope is that in the interpretation of the most pressing dangers of late modernity we might be able to construct a form of security based on the appreciation and articulation rather than the normalization or extirpation of difference. Nietzsche transvalues both Hobbes's and Marx's interpretations of security through a genealogy of modes of being. His method is not to uncover some deep meaning or value for security, but to destabilize the intolerable fictional identities of the past which have been created out of fear, and to affirm the creative differences which might yield new values for the future. Originating in the paradoxical relationship of a contingent life and a certain death, the history of security reads for Nietzsche as an abnegation, a resentment and, finally, a transcendence of this paradox. In brief, the history is one of individuals seeking an impossible security from the most radical "other" of life, the terror of death which, once generalized and nationalized, triggers a futile cycle of collective identities seeking security from alien others--who are seeking similarly impossible guarantees. It is a story of differences taking on the otherness of death, and identities calcifying into a fearful sameness.

#### The alternative is to reject dominant security discourse – no one policy solves every problem – good theory now drives better policies later

Bruce 96 (Robert, Associate Professor in Social Science – Curtin University and Graeme Cheeseman, Senior Lecturer – University of New South Wales, Discourses of Danger and Dread Frontiers, p. 5-9)

This goal is pursued in ways which are still unconventional in the intellectual milieu of international relations in Australia, even though they are gaining influence worldwide as traditional modes of theory and practice are rendered inadequate by global trends that defy comprehension, let alone policy. The inability to give meaning to global changes reflects partly the enclosed, elitist world of professional security analysts and bureaucratic experts, where entry is gained by learning and accepting to speak a particular, exclusionary language. The contributors to this book are familiar with the discourse, but accord no privileged place to its ‘knowledge form as reality’ in debates on defence and security. Indeed, they believe that debate will be furthered only through a long overdue critical re-evaluation of elite perspectives. Pluralistic, democratically-oriented perspectives on Australia’s identity are both required and essential if Australia’s thinking on defence and security is to be invigorated. This is not a conventional policy book; nor should it be, in the sense of offering policy-makers and their academic counterparts sets of neat alternative solutions, in familiar language and format, to problems they pose. This expectation is in itself a considerable part of the problem to be analysed. It is, however, a book about policy, one that questions how problems are framed by policy-makers. It challenges the proposition that irreducible bodies of real knowledge on defence and security exist independently of their ‘context in the world’, and it demonstrates how security policy is articulated authoritatively by the elite keepers of that knowledge, experts trained to recognize enduring, universal wisdom. All others, from this perspective, must accept such wisdom or remain outside the expert domain, tainted by their inability to comply with the ‘rightness’ of the official line. But it is precisely the official line, or at least its image of the world, that needs to be problematised. If the critic responds directly to the demand for policy alternatives, without addressing this image, he or she is tacitly endorsing it. Before engaging in the policy debate the critics need to reframe the basic terms of reference. This book, then, reflects and underlines the importance of Antonio Gramsci and Edward Said’s ‘critical intellectuals’.15 The demand, tacit or otherwise, that the policy-maker’s frame of reference be accepted as the only basis for discussion and analysis ignores a three thousand year old tradition commonly associated with Socrates and purportedly integral to the Western tradition of democratic dialogue. More immediately, it ignores post-seventeenth century democratic traditions which insist that a good society must have within it some way of critically assessing its knowledge and the decisions based upon that knowledge which impact upon citizens of such a society. This is a tradition with a slightly different connotation in contemporary liberal democracies which, during the Cold War, were proclaimed different and superior to the totalitarian enemy precisely because there were institutional checks and balances upon power. In short, one of the major differences between ‘open societies’ and their (closed) counterparts behind the Iron Curtain was that the former encouraged the critical testing of the knowledge and decisions of the powerful and assessing them against liberal democratic principles. The latter tolerated criticism only on rare and limited occasions. For some, this represented the triumph of rational-scientific methods of inquiry and techniques of falsification. For others, especially since positivism and rationalism have lost much of their allure, it meant that for society to become open and liberal, sectors of the population must be independent of the state and free to question its knowledge and power. Though we do not expect this position to be accepted by every reader, contributors to this book believe that critical dialogue is long overdue in Australia and needs to be listened to. For all its liberal democratic trappings, Australia’s security community continues to invoke closed monological narratives on defence and security. This book also questions the distinctions between policy practice and academic theory that inform conventional accounts of Australian security. One of its major concerns, particularly in chapters 1 and 2, is to illustrate how theory is integral to the practice of security analysis and policy prescription. The book also calls on policy-makers, academics and students of defence and security to think critically about what they are reading, writing and saying; to begin to ask, of their work and study, difficult and searching questions raised in other disciplines; to recognise, no matter how uncomfortable it feels, that what is involved in theory and practice is not the ability to identify a replacement for failed models, but a realisation that terms and concepts – state sovereignty, balance of power, security, and so on – are contested and problematic, and that the world is indeterminate, always becoming what is written about it. Critical analysis which shows how particular kinds of theoretical presumptions can effectively exclude vital areas of political life from analysis has direct practical implications for policy-makers, academics and citizens who face the daunting task of steering Australia through some potentially choppy international waters over the next few years. There is also much of interest in the chapters for those struggling to give meaning to a world where so much that has long been taken for granted now demands imaginative, incisive reappraisal. The contributors, too, have struggled to find meaning, often despairing at the terrible human costs of international violence. This is why readers will find no single, fully formed panacea for the world’s ills in general, or Australia’s security in particular. There are none. Every chapter, however, in its own way, offers something more than is found in orthodox literature, often by exposing ritualistic Cold War defence and security mind-sets that are dressed up as new thinking. Chapters 7 and 9, for example, present alternative ways of engaging in security and defence practice. Others (chapters 3, 4, 5, 6 and 8) seek to alert policy-makers, academics and students to alternative theoretical possibilities which might better serve an Australian community pursuing security and prosperity in an uncertain world. All chapters confront the policy community and its counterparts in the academy with a deep awareness of the intellectual and material constraints imposed by dominant traditions of realism, but they avoid dismissive and exclusionary terms which often in the past characterized exchanges between policy-makers and their critics. This is because, as noted earlier, attention needs to be paid to the words and the thought processes of those being criticized. A close reading of this kind draws attention to underlying assumptions, showing they need to be recognized and questioned. A sense of doubt (in place of confident certainty) is a necessary prelude to a genuine search for alternative policies. First comes an awareness of the need for new perspectives, then specific policies may follow. As Jim George argues in the following chapter, we need to look not so much at contending policies as they are made for us but at challenging ‘the discursive process which gives [favoured interpretations of “reality”] their meaning and which direct [Australia’s] policy/analytical/military responses’. This process is not restricted to the small, official defence and security establishment huddled around the US-Australian War Memorial in Canberra. It also encompasses much of Australia’s academic defence and security community located primarily though not exclusively within the Australian National University and the University College of the University of New South Wales. These discursive processes are examined in detail in subsequent chapters as authors attempt to make sense of a politics of exclusion and closure which exercises disciplinary power over Australia’s security community. They also question the discourse of ‘regional security’, ‘security cooperation’, ‘peacekeeping’ and ‘alliance politics’ that are central to Australia’s official and academic security agenda in the 1990s. This is seen as an important task especially when, as is revealed, the disciplines of International Relations and Strategic Studies are under challenge from critical and theoretical debates ranging across the social sciences and humanities; debates that are nowhere to be found in Australian defence and security studies. The chapters graphically illustrate how Australia’s public policies on defence and security are informed, underpinned and legitimised by a narrowly-based intellectual enterprise which draws strength from contested concepts of realism and liberalism, which in turn seek legitimacy through policy-making processes. Contributors ask whether Australia’s policy-makers and their academic advisors are unaware of broader intellectual debates, or resistant to them, or choose not to understand them, and why?

### 1NC

#### Electricity prices are on the decline; trends prove

**Platts 1/9** (“EIA data show US wholesale power price declines in 2012”, 01/09, http://www.platts.com/RSSFeedDetailedNews/RSSFeed/ElectricPower/6004476)

The average day-ahead wholesale power price in every region of the US declined during 2012, continuing a trend from 2011, the US Energy Information Administration said Wednesday. Lower natural gas prices and generally mild temperatures contributed to the declines in on-peak power prices, EIA said. The largest drop from 2011 was in the Electric Reliability Council of Texas, which experienced a 43% decline to an average of $35.91/MWh, EIA said in a daily note on energy market trends in 2012. The large drop in ERCOT was mainly due to a return to more typical power prices in 2012 following significant price spikes in the summer of 2011, the agency said. In much of the US, such as the Southeast, Mid-Atlantic, New England and Northwest, average wholesale power prices were from 22% to 27% lower than in 2011, EIA reported.

#### Plan drives up electricity prices

Tickell, 12 – founding partner of Oxford Climate Associates and a member of the Oxford Geoengineering Institute; MA from Oxford University (Oliver, April/May. “Thorium: Not ‘green’, not ‘viable’, and not likely.” http://www.jonathonporritt.com/sites/default/files/users/Thorium%20briefing%20FINAL%203.7.12.pdf)

4.3 Thorium and LFTRs – investment outlook

The development of thorium / LFTR technologies represents a poor investment for national governments, utilities and private investors given:  the marginal benefits to be derived from using thorium fuels in existing reactor designs;  the very long-term nature of any benefit that may be realised from LFTRs, of the order of half a century;  the uncertainty as to whether the very significant technical challenges of the LFTR will ever be overcome;  the possibility that the materials used for reactor construction may degrade more rapidly than anticipated, causing early shut-down;  the likely very high cost of LFTR electricity – especially when compared against the anticipated low future cost of electricity from renewable sources, solar in particular, over the applicable time frame.

#### Low electricity prices spurs manufacturing "reshoring"

Perry 7/31/12 (Mark, Prof of Economics @ Univ. of Michigan, "America's Energy Jackpot: Industrial Natural Gas Prices Fall to the Lowest Level in Recent History," http://mjperry.blogspot.com/2012/07/americas-energy-jackpot-industrial.html)

Building petrochemical plants could suddenly become attractive in the United States. Manufacturers will "reshore" production to take advantage of low natural gas and electricity prices. Energy costs will be lower for a long time, giving a competitive advantage to companies that invest in America, and also helping American consumers who get hit hard when energy prices spike.¶ After years of bad economic news, the natural gas windfall is very good news. Let's make the most of it." ¶ The falling natural gas prices also make the predictions in this December 2011 study by PriceWaterhouseCoopers, "Shale gas: A renaissance in US manufacturing?"all the more likely: ¶ U.S. manufacturing companies (chemicals, metals and industrial) could employ approximately one million more workers by 2025 because of abundant, low-priced natural gas.¶ Lower feedstock and energy cost could help U.S. manufacturers reduce natural gas expenses by as much as $11.6 billion annually through 2025.¶ MP: As I have emphasized lately, America's ongoing shale-based energy revolution is one of the real bright spots in an otherwise somewhat gloomy economy, and provides one of the best reasons to be bullish about America's future. The shale revolution is creating thousands of well-paying, shovel-ready jobs in Texas, North Dakota and Ohio, and thousands of indirect jobs in industries that support the shale boom (sand, drilling equipment, transportation, infrastructure, steel pipe, restaurants, etc.). In addition, the abundant shale gas is driving down energy prices for industrial, commercial, residential and electricity-generating users, which frees up billions of dollars that can be spent on other goods and services throughout the economy, providing an energy-based stimulus to the economy. ¶ Cheap natural gas is also translating into cheaper electricity rates, as low-cost natural gas displaces coal. Further, cheap and abundant natural gas is sparking a manufacturing renaissance in energy-intensive industries like chemicals, fertilizers, and steel. And unlike renewable energies like solar and wind, the natural gas boom is happening without any taxpayer-funded grants, subsidies, credits and loans. Finally, we get an environmental bonus of lower CO2 emissions as natural gas replaces coal for electricity generation. Sure seems like a win, win, win, win situation to me.

#### Manufacturing strength is key to military power

Ettlinger and Gordon 11 (Michael and Kate, the Vice President for Economic Policy at the Center for American Progress, former director of the Economic Analysis and Research Network of the Economic Policy Institute and Vice President for Energy Policy at the Center for American Progress. Most recently, Kate was the co-director of the national Apollo Alliance, where she still serves as senior policy advisor. Former senior associate at the Center on Wisconsin Strategy, "The Importance and Promise of American Manufacturing" [http://www.americanprogress.org/issues/2011/04/pdf/manufacturing.pdf-)](http://www.americanprogress.org/issues/2011/04/pdf/manufacturing.pdf-%29)

Manufacturing is critically important to the American economy. For generations, the strength of our country rested on the power of our factory floors—both the machines and the men and women who worked them. We need manufacturing to continue to be a bedrock of strength for generations to come. Manufacturing is woven into the structure of our economy: Its importance goes far beyond what happens behind the factory gates. The strength or weakness of American manufacturing carries implications for the entire economy, our national security, and the well-being of all Americans. Manufacturing today accounts for 12 percent of the U.S. economy and about 11 percent of the private-sector workforce. But its significance is even greater than these numbers would suggest. The direct impact of manufacturing is only a part of the picture. First, jobs in the manufacturing sector are good middle-class jobs for millions of Americans. Those jobs serve an important role, offering economic opportunity to hard-working, middle-skill workers. This creates upward mobility and broadens and strengthens the middle class to the benefit of the entire economy. What’s more, U.S.-based manufacturing underpins a broad range of jobs that are quite different from the usual image of manufacturing. These are higher-skill service jobs that include the accountants, bankers, and lawyers that are associated with any industry, as well as a broad range of other jobs including basic research and technology development, product and process engineering and design, operations and maintenance, transportation, testing, and lab work. Many of these jobs are critical to American technology and innovation leadership. The problem today is this: Many multinational corporations may for a period keep these higher-skill jobs here at home while they move basic manufacturing elsewhere in response to other countries’ subsidies, the search for cheaper labor costs, and the desire for more direct access to overseas markets, but eventually many of these service jobs will follow. When the basic manufacturing leaves, the feedback loop from the manufacturing floor to the rest of a manufacturing operation—a critical element in the innovative process—is eventually broken. To maintain that feedback loop, companies need to move higher-skill jobs to where they do their manufacturing. And with those jobs goes American leadership in technology and innovation. This is why having a critical mass of both manufacturing and associated service jobs in the United States matters. The "industrial commons" that comes from the crossfertilization and engagement of a community of experts in industry, academia, and government is vital to our nation’s economic competitiveness. Manufacturing also is important for the nation’s economic stability. The experience of the Great Recession exemplifies this point. Although manufacturing plunged in 2008 and early 2009 along with the rest of the economy, it is on the rebound today while other key economic sectors, such as construction, still languish. Diversity in the economy is important—and manufacturing is a particularly important part of the mix. Although manufacturing is certainly affected by broader economic events, the sector’s internal diversity—supplying consumer goods as well as industrial goods, serving both domestic and external markets— gives it great potential resiliency. Finally, supplying our own needs through a strong domestic manufacturing sector protects us from international economic and political disruptions. This is most obviously important in the realm of national security, even narrowly defined as matters related to military strength, where the risk of a weak manufacturing capability is obvious. But overreliance on imports and substantial manufacturing trade deficits weaken us in many ways, making us vulnerable to everything from exchange rate fluctuations to trade embargoes to natural disasters.

#### Heg solves multiple scenarios for nuke war

Kagan 7 (Robert, Senior Associate – Carnegie Endowment for International Peace, “End of Dreams, Return of History: International Rivalry and American Leadership”, Policy Review, August/September, http://www.hoover.org/publications/policyreview/8552512.html#n10)

The jostling for status and influence among these ambitious nations and would-be nations is a second defining feature of the new post-Cold War international system. Nationalism in all its forms is back, if it ever went away, and so is international competition for power, influence, honor, and status. American predominance prevents these rivalries from intensifying —  its regional as well as its global predominance. Were the United States to diminish its influence in the regions where it is currently the strongest power, the other nations would settle disputes as great and lesser powers have done in the past: sometimes through diplomacy and accommodation but often through confrontation and wars of varying scope, intensity, and destructiveness. One novel aspect of such a multipolar world is that most of these powers would possess nuclear weapons. That could make wars between them less likely, or it could simply make them more catastrophic. It is easy but also dangerous to underestimate the role the United States plays in providing a measure of stability in the world even as it also disrupts stability. For instance, the United States is the dominant naval power everywhere, such that other nations cannot compete with it even in their home waters. They either happily or grudgingly allow the United States Navy to be the guarantor of international waterways and trade routes, of international access to markets and raw materials such as oil. Even when the United States engages in a war, it is able to play its role as guardian of the waterways. In a more genuinely multipolar world, however, it would not. Nations would compete for naval dominance at least in their own regions and possibly beyond. Conflict between nations would involve struggles on the oceans as well as on land. Armed embargos, of the kind used in World War i and other major conflicts, would disrupt trade flows in a way that is now impossible. Such order as exists in the world rests not only on the goodwill of peoples but also on American power. Such order as exists in the world rests not merely on the goodwill of peoples but on a foundation provided by American power. Even the European Union, that great geopolitical miracle, owes its founding to American power, for without it the European nations after World War II would never have felt secure enough to reintegrate Germany. Most Europeans recoil at the thought, but even today Europe ’s stability depends on the guarantee, however distant and one hopes unnecessary, that the United States could step in to check any dangerous development on the continent. In a genuinely multipolar world, that would not be possible without renewing the danger of world war. People who believe greater equality among nations would be preferable to the present American predominance often succumb to a basic logical fallacy. They believe the order the world enjoys today exists independently of American power. They imagine that in a world where American power was diminished, the aspects of international order that they like would remain in place. But that ’s not the way it works. International order does not rest on ideas and institutions. It is shaped by configurations of power. The international order we know today reflects the distribution of power in the world since World War ii, and especially since the end of the Cold War. A different configuration of power, a multipolar world in which the poles were Russia, China, the United States, India, and Europe, would produce its own kind of order, with different rules and norms reflecting the interests of the powerful states that would have a hand in shaping it. Would that international order be an improvement? Perhaps for Beijing and Moscow it would. But it is doubtful that it would suit the tastes of enlightenment liberals in the United States and Europe. The current order, of course, is not only far from perfect but also offers no guarantee against major conflict among the world ’s great powers. Even under the umbrella of unipolarity, regional conflicts involving the large powers may erupt. War could erupt between China and Taiwan and draw in both the United States and Japan. War could erupt between Russia and Georgia, forcing the United States and its European allies to decide whether to intervene or suffer the consequences of a Russian victory. Conflict between India and Pakistan remains possible, as does conflict between Iran and Israel or other Middle Eastern states. These, too, could draw in other great powers, including the United States. Such conflicts may be unavoidable no matter what policies the United States pursues. But they are more likely to erupt if the United States weakens or withdraws from its positions of regional dominance. This is especially true in East Asia, where most nations agree that a reliable American power has a stabilizing and pacific effect on the region. That is certainly the view of most of China ’s neighbors. But even China, which seeks gradually to supplant the United States as the dominant power in the region, faces the dilemma that an American withdrawal could unleash an ambitious, independent, nationalist Japan. Conflicts are more likely to erupt if the United States withdraws from its positions of regional dominance. In Europe, too, the departure of the United States from the scene — even if it remained the world’s most powerful nation — could be destabilizing. It could tempt Russia to an even more overbearing and potentially forceful approach to unruly nations on its periphery. Although some realist theorists seem to imagine that the disappearance of the Soviet Union put an end to the possibility of confrontation between Russia and the West, and therefore  to the need for a permanent American role in Europe, history suggests that conflicts in Europe involving Russia are possible even without Soviet communism. If the United States withdrew from Europe — if it adopted what some call a strategy of “offshore balancing” — this could in time increase the likelihood of conflict involving Russia and its near neighbors, which could in turn draw the United States back in under unfavorable circumstances.

### 1NC

#### DOE will block natural gas exports – increased demand means exports hurt “public interest”

Ebinger et al 12 (Charles, Senior Fellow and Director of the Energy Security Initiative – Brookings, Kevin Massy, Assistant Director of the Energy Security Initiative – Brookings, and Govinda Avasarala, Senior Research Assistant in the Energy Security Initiative – Brookings, “Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas,” Brookings Institution, Policy Brief 12-01, http://www.brookings.edu/~/media/research/files/reports/2012/5/02%20lng%20exports%20ebinger/0502\_lng\_exports\_ebinger.pdf)

From the perspective of the U.S. federal government, the issue of implications is viewed in terms of “public interest.” Under existing legislation, exports of natural gas to countries with a free trade agreement (FTA) with the United States are, by law, deemed to be in the public interest and authorization is required to be given without modification or delay. Projects looking for authorization to export LNG to countries without an FTA, which account for roughly 96 percent of current global LNG demand, are required to be approved by the Secretary of Energy unless, after public hearing, the Department of Energy finds that such exports are not in the public interest. 80 Although the legal definition of “public interest” is not explicitly given in existing legislation, according to public statements by officials from the Department of Energy, “public interest” includes:

• Adequate domestic natural gas supply;

 • Domestic demand for natural gas proposed for export; Economic impacts of exports (on GDP, consumers, and industry); • U.S. energy security; • Job creation; • U.S. balance of trade; • International considerations; • Environmental considerations; • Consistency with DoE’s policy of promoting market competition through free negotiation of trade 81 The first two of these criteria were addressed in Part I. The remainder focus on the various domestic and international implications of U.S. LNG exports. domestic implications The domestic implications of U.S. LNG exports include their impact on natural gas prices, natural gas price volatility, jobs and competitiveness, and on overall energy security. Price of domestic natural Gas The domestic price impact of natural gas exports will be a significant factor in determining whether or not the United States should export LNG. While it is generally acknowledged that a domestic price increase will result from largescale LNG exports, the size of the price increase is the subject of debate, with a number of studies suggesting a range of possible outcomes. The important considerations when analyzing the results and conclusions of the various existing studies are the assumptions and models that are used when making price forecasts. Below are the results and methodologies of five major pricing studies done by the EIA and three consultancies: Deloitte, ICF International, and Navigant Consulting, which published two studies. 2012 Energy information Administration study In January 2012, the EIA published a study entitled “Effect of Increased Natural Gas Exports on Domestic Energy Markets.” 82 The study, conducted at the request of the Office of Fossil Energy of the Department of Energy, analyzed four different export scenarios across four different resource base or economic assumptions to project price responses to LNG exports. In addition to a “baseline” scenario, where no LNG is exported, the EIA model considered four different export scenarios: • A low export/slow growth scenario, where 6 bcf/day of LNG is exported, phased in at a rate of 1 bcf/day per year; • A low export/rapid growth scenario, where 6 bcf/day of LNG is exported, phased in at a rate of 3 bcf/day per year; • A high export/slow growth scenario, where 12 bcf/day of LNG is exported, phased in at a rate of 1 bcf/day per year; • A high export/rapid growth scenario, where 12 bcf/day of LNG is exported, phased in at a rate of 3 bcf/day per year Given the uncertainty over the actual size of the shale gas resource base and the future growth of the U.S. economy, each of these scenarios (both “baseline” and export) were applied to four alternate background cases: • A reference case, based on the EIA’s 2011 Annual Energy Outlook; • A low-shale estimated ultimate recovery (EUR) case, in which shale gas production from new, undrilled wells is 50 percent below the reference case scenario; • A high-shale EUR case, in which shale gas production from new, undrilled wells is 50 percent higher than the reference case; • A high economic growth case, in which U.S. GDP grows at 3.2 percent as opposed to the 2.7 percent assumed in the reference case. Given the range of assumptions, the range of results was unsurprisingly wide. The results range from a 9.6 percent increase (from $3.56 to $3.90/ mcf) in domestic natural gas prices in 2025 due to exports (in the case of high shale gas recovery, low export volumes and a slow rate of export growth) to a 32.5 percent increase (in the case of low shale gas recovery, high export volumes and a high rate of export growth). The percentage premium for domestic natural gas prices in 2025 for each scenario relative to the baseline scenario price estimate is detailed in table 3. In addition to the price premium for exporting natural gas that exists in each case, the EIA study projected a short-term spike in natural gas prices as a result of LNG exports. As figure 7 below illustrates, in 2015, the first year that LNG exports occur, domestic natural gas prices rise rapidly until total export capacity is reached. In the “lowrapid” scenario prices peak in 2016, after the 6 bcf/day of export capacity is built over 2 years; in the “high-slow” scenario, natural gas prices peak in 2026, after the 12 bcf/day of export capacity is built over 12 years. The immediate jump in price becomes more pronounced in the scenarios where LNG export capacity increases quickly. In the “low-rapid” scenario, the price of natural gas peaks at nearly 18 percent above the baseline case; in the “high-rapid” scenario, natural gas prices peak at 36 percent above the baseline case. This price impact is exacerbated in the Low Shale EUR and High Macroeconomic Growth cases, as LNG exports further tighten domestic natural gas markets. In the most extreme example, the high-rapid scenario for exports in a Low Shale EUR case, the price for natural gas peaks at more than 50 percent than the baseline case. 83 There are two factors that should be considered when interpreting the results of this price impact study. The first is the assumption regarding the rate at which LNG could be exported. The results of EIA’s analysis represent an extreme scenario for LNG exports. In the existing LNG market, it is particularly unlikely that either the “low-rapid” or the “high-rapid” scenarios would materialize. The former assumption stipulates that the United States would export 6 bcf/day of LNG by 2016. Given that, at the time of writing, only one facility has been approved to export 2.2 bcf/day to nonFTA countries starting in 2015, it is unlikely that another three plants would be approved and built in such a short time frame. 84 The latter scenario, that the United States would be exporting 12 bcf/ day of LNG by 2018, suggests that in the next several years, the United States would grow from exporting negligible volumes of LNG to having roughly one-third of the global LNG export capacity. Not only would this supply growth outpace growth in global LNG demand, but this capacity addition would also have to compete with roughly 11 bcf/day of Australian-origin LNG that is expected to hit the market around the same time. 85 The second issue is the model’s assumptions for incremental investment in natural gas production as a result of increased export capacity. The spike in price depicted in figure 7 occurs because investment from gas producers lags additional demand. In the model, producers respond to, rather than anticipate, additional demand. For this reason, prices peak once the export capacity is filled, before steadily decreasing. In reality, the expectation of future demand would likely induce gas producers to invest in additional production before incremental demand occurs. As a result, the increase in prices would likely begin earlier and peak at a lower level than suggested by the model. deloitte study An earlier study released in November 2011 from the Deloitte Center for Energy Solutions highlighted the producer-response in its model. In addition to finding that LNG exports would produce a smaller increase in gas prices than the EIA report suggests, the Deloitte study points out that “producers can develop more reserves in anticipation of demand growth, such as LNG exports. There will be ample notice and time in advance of the exports to make supplies available.” 86 Using a dynamic model, in which production increased in anticipation of new demand, the Deloitte study found that 6 bcf/day of exports of LNG would result in, on average, a 1.7 percent increase (from $7.09 to $7.21/MMBtu) in the price of natural gas between 2016 and 2035. Further, the Deloitte study noted that there would be regional variations to the increase in natural gas prices resulting from LNG exports. As most of the proposed liquefaction terminals are expected to be on the Gulf Coast, the price of Henry Hub gas, which is the key benchmark for natural gas from the Gulf Coast, will increase by $0.22/ MMBtu by 2035 as a result of U.S. LNG exports. This is more than double the price increase projected in regions further away from the LNG export terminals. In New York and Illinois, natural gas prices are projected to increase by less than $0.10/MMBtu. This is particularly important in the Northeast, which historically experiences some of the highest natural gas prices in the country, but will benefit from the development and consumption of natural gas from the nearby Marcellus shale play. other studies Three other studies of note have analyzed the price impacts of U.S. LNG exports. In August 2010, Navigant Consulting found that 2 bcf/day of LNG exports would cause a price increase of between 7 and 7.9 percent from 2015 to 2035 relative to a scenario with no gas exports. ICF International found in August 2011 that 6 bcf/day of exports would result in an 11 percent ($0.64/MMBtu) increase in natural gas prices over the same period. 87 More recently, Navigant released another study that analyzed the impact of two separate export scenarios. The first scenario modeled the impact of 3.6 bcf/day of LNG exports from three terminals in North America: Sabine Pass in Louisiana, Kitimat in British Columbia, and Coos Bay in Oregon. The second scenario modeled the impact of 6.6 bcf/day of LNG exports from the three aforementioned export projects and 2 bcf/day of added exports from the Gulf Coast and 1 bcf/day from Maryland. 88 This Navigant study found that 6.6 bcf/day of LNG exports would result in a 6 percent ($0.35/MMBtu) increase in natural gas prices from 2015 to 2035. As with the EIA and Deloitte studies, the results of both Navigant and ICF’s studies must be analyzed in the context of their respective methodologies and assumptions. Navigant’s first study uses a more static supply model, which, unlike dynamic supply models, does not fully take account of the effect that higher prices have on spurring additional production. As a result, it takes a conservative estimate of supply growth potential. The report acknowledges that the price outcomes modeled in its analysis “establish the upper range of impacts that exports […] might have on natural gas prices.” 89 This study also did not factor in the reemergence of the industrial sector as a major consumer of natural gas following the shale gas “revolution.” The study assumes that natural gas consumption by the industrial sector will decline by 0.3% per year to 2035. By contrast, the EIA model assumes that industrial sector demand will increase by roughly 1% per year over the same period. 90 The ICF study factors in various levels of production response from an increase in price. Under its 6 bcf/day export scenario, the price impact ranges from a $0.52/ MMBtu increase in a more responsive drilling activity scenario to a $0.75/MMBtu increase in a less responsive drilling activity scenario. which study is right? Given that these studies forecast natural gas prices two decades into the future, it is difficult to determine which study is most accurate. (table 4 shows a comparison of the price impact forecasts of the various models.) However, policymakers would benefit from having a better understanding of the results that are generated from each report. This includes choosing the most relevant results from each report. For instance, following the release of the EIA study, many commentators were quick to highlight that natural gas prices could increase by more than 50 percent as a result of LNG exports. However, this ignored the assumptions behind this number: it was based on the price of natural gas in one year under the most extreme assumptions of exports and domestic resource base. A more comprehensive analysis should include an assessment of the average price impact from 2015 to 2035. When distinguishing between the various studies, policymakers should identify which assumptions most resemble the existing natural gas market and its likely direction, and which models are most reflective of the complex nature of domestic and global natural gas trade. Assuming realistic volumes of natural gas exports as well as a reasonable supply response by natural gas producers are important considerations. It is important to note that the supply curves in the various studies reflect different interpretations of the economics of marginal production. The Power sector and industrial sector Part I indicated that the power-generation and industrial sectors would account for most of the demand for newly available natural gas resources. As shown above, LNG exports are likely to increase domestic prices of natural gas, suggesting negative consequences for these two competing sectors. In their analyses, both Deloitte and EIA found that the majority—63 percent, according to both studies—of the exported natural gas will come from new production as opposed to displaced consumption from other sectors. By contrast, between 17 and 38 percent of supply of natural gas for export would be met by reduced demand, as higher prices pushes some domestic consumers to use less gas. In the power generation and industrial sectors, the price impacts of LNG exports are likely to have modest impacts. In the power sector, natural gas has historically been used as a back up to coal and nuclear base-load generation. For such gas used at the margin, the increase in electricity prices as a result of LNG exports would be limited by its competitiveness relative to other fuels: as soon as it becomes more expensive than the alternative for back up generation, power producers will substitute away from gas. 91 According to ICF International, a $0.64/MMBtu increase in the price of natural gas would result in an electricity price increase of between $1.66 and $4.97/megawatt-hour (MWh), depending on how often gas is used as the marginal fuel for electricity. Deloitte estimates that the price increase of electricity would not be more than $1.65/MWh. 92 EIA estimates that electricity price impacts will be marginal as well (between $1.40/MWh and $2.90/MWh) except in the “highrapid” export scenario. 93 The EIA Annual Energy Outlook 2011 estimates that, without exporting LNG, the average price of electricity (across all fuels) in 2035 will be $92/MWh. 94 In the longer term, natural gas is itself likely to be used for more base-load generation. The rapid increase in shale gas production, coupled with the retirements of as much as 50 gigawatts (GW) of coal-fired electricity due to plant age or inability to adhere to possibly forthcoming EPA regulations is likely to increase the demand for natural gas in the power sector. According to some analysts, the near-term demand caused by the retirements of the oldest and least efficient coal-fired power plants could result in an additional natural gas demand of 2 bcf/day. 95 Given the lack of environmentally and economically viable alternatives, a moderate increase in gas prices is unlikely to result in a large move away from natural gas, although increased costs will be transferred to customers. Natural gas consumption in the power sector has been considered economic at prices much higher than those resulting from LNG exports in even the highest price-impact projections. Even prior to the shale gas “revolution,” when natural gas prices were high, natural gas demand was increasing in the power sector. The EIA Annual Energy Outlook 2005— published in a year when average well head prices were over $7/MMBTU—projected that natural gas demand in the electricity sector would increase by 70 percent between 2003 and 2015. 96 Unlike the power sector, which continued to build natural-gas fired generation during a period of increasing gas prices, the industrial sector was negatively affected by growing natural gas import dependence, high gas prices, and gas price volatility. Between 2000 and 2005, the price of natural gas increased by 99 percent and LNG imports more than doubled. 97 By 2005, the ratio of the price of oil to the price of natural gas was approximately 6:1, just below the 7:1 oil-to-gas price ratio at which U.S. petrochemical and plastics producers are globally competitive. 98 That same year Alan Greenspan, then-Chairman of the Federal Reserve, noted that because of natural gas price increases “the North American gas-using industry [was] in a weakened competitive position.” 99 Since then the price of natural gas has collapsed. In 2011, the oil-to-natural gas price ratio was more than 24:1. In 2012 it has been even higher. The decline in natural gas prices has galvanized the industrial sector. A joint study by PwC and the National Association for Manufacturers, an industry trade group, found that the development of shale gas could save manufacturers as much as $11.6 billion per year in feedstock costs through 2025. 100 New investments in petrochemical and plastics producing facilities are occurring throughout the East and Southeast, largely predicated on the availability of inexpensive natural gas. Opponents of LNG exports contend that such investments would be deterred in the future as a result of increases in the price of natural gas. However, the evidence suggests that the competitive advantage of U.S. industrial producers relative to its competitors in Western Europe and Asia is not likely to be affected significantly by the projected increase in natural gas prices resulting from LNG exports. As European and many Asian petrochemical producers use oil-based products such as naphtha and fuel oil as feedstock, U.S. companies are more likely to enjoy a significant cost advantage over their overseas competitors. Even a one-third decline in the estimated price of crude oil in 2035 would result in an oil-to-gas ratio of 14:1. 101 There is also the potential for increased exports to help industrial consumers. Ethane, a liquid byproduct of natural gas production at several U.S. gas plays, is the primary feedstock of ethylene, a petrochemical product used to create a wide variety of products. According to a study by the American Chemistry Council, an industry trade body, a 25 percent increase in ethane production would yield a $32.8 billion increase in U.S. chemical production. By providing another market for cheap dry gas, LNG exports will encourage additional production of natural gas liquids (NGL) that are produced in association with dry gas. According to the EIA, ethane production increased by nearly 30 percent between 2009 and 2011 as natural gas production from shale started to grow substantially. Ethane production is now at an alltime high, with more than one million barrels per day of ethane being produced. 102 Increased gas production for exports results in increased production of such natural gas liquids, in which case exports can be seen as providing a benefit to the petrochemical industry. natural gas price volatility A major concern among domestic end users of natural gas is the possibility of an increase in natural gas price volatility resulting from an increase in U.S. LNG exports. As figure 8 demonstrates, the price volatility experienced during the 2000s was the highest the domestic gas market has experienced in the past three decades. The volatility of the natural gas market in the 2000s was largely caused by a tight supply-demand balance. Natural gas demand increased substantially as the U.S. economy grew and natural gas was viewed as environmentally preferable to coal for power generation. This increase in demand coincided with a reduction in domestic supply and an increased reliance on imports. The recent surge in U.S. natural gas production has resulted in less market volatility since 2010. According to EIA, the standard deviation of the price of natural gas (a general statistical indicator of volatility) between 2010 and 2011 was one-third what it was during the 2000s. 103 Potential exports of U.S. LNG concerns some domestic consumers for two principal reasons: greater volatility in domestic natural gas prices; and exposure of domestic natural gas prices to higher international prices resulting in a convergence between low U.S. prices and high international prices. There is an insufficient amount of data and quantitative research on the relationship between do mestic natural gas price volatility and LNG exports. However, certain characteristics of the LNG market are likely to limit volatility. LNG is bound by technical constraints: it must be liquefied and then transported on dedicated tankers before arriving at terminals where a regasification facility must be installed. Liquefaction facilities have capacity limits to how much gas they can turn into LNG. If they are operating at or close-to full capacity, such facilities will have a relatively constant demand for natural gas, therefore an international price or supply shock would have little impact on domestic gas prices. Moreover, unlike oil trading, in which an exporter—theoretically—sells each marginal barrel of production to the highest bidder in the global market, the capacity limit on LNG production and export means that LNG exporters have an infrastructure-limited demand for natural gas leaving the rest of the natural gas for domestic consumption. As most LNG infrastructure facilities are built on a project finance basis and underpinned by long-term contracts, this demand can be anticipated by the market years in advance, reducing the likelihood of volatility. The macroeconomy and jobs The macroeconomic and job implications of LNG exports depend on two principal factors: the gains from trade from exploiting pricing differentials and inefficiencies of the global market; and the employment implications of those gains, higher domestic natural gas prices, and greater domestic natural gas production. The Department of Energy has commissioned a study on both the macroeconomic and employment implications of U.S. LNG exports, which will be released later this year. This study will provide a qualitative assessment of the implications of LNG exports to the U.S. economy and employment. LNG exports are likely to be a net benefit to the U.S. economy, although probably not a significant contributor in terms of total U.S. GDP. Exports of U.S. natural gas will take advantage of the benefits of the existing producer’s surplus resulting from the pricing differentials between the natural gas markets in the United States, Europe, and Asia. Contractual terms will determine how this surplus is shared between U.S. sellers and foreign buyers. 104 The benefit of this trade will likely outweigh the cost to domestic consumers of the increase in the price of natural gas as most of the natural gas demanded by exports will come from new natural gas production as opposed to displacing existing production from domestic consumers. On the other hand, LNG exports from the United States are likely to put marginal upward pressure on the relative value of the U.S. dollar. In March 2012, Citigroup released a report on North American hydrocarbon production that included a model of the macroeconomic impact of U.S. oil and gas exports. The Citi analysis found that oil and gas exports would cause a nearly two percent decline in the current account deficit by 2020, but that the exchange rate implications would be modest. By 2020, the U.S. dollar would appreciate by between 1.6 and 5.4 percent. 105 The implications of LNG exports on job creation are similarly difficult to quantify. Other than temporary construction jobs created by the need to build liquefaction capacity, pipelines, and other ancillary infrastructure, the operation of the liquefaction facility will likely provide little permanent employment benefit. As outlined in the section on price impacts above, as much of the gas for export will come from new production, rather than the displacement of consumption in other sectors, the negative economic, and therefore jobrelated, effects on those sectors is likely to be limited. Beyond the labor required for additional gas production to satisfy LNG exports, the net impact of LNG exports is likely to be minimal. Further upstream, the job potential may be greater. By increasing domestic natural gas production, employment from additional oil and gas producers will increase, as will the demand for manufacturers of equipment for oil and gas production, gathering, and transportation. domestic energy security Aside from the price impact of potential U.S. LNG exports, a major concern among opponents is that such exports would diminish U.S. “energy security”; that exports would deny the United States of a strategically important resource. The extent to which such concerns are **valid** depends on several factors, including the size of the domestic resource base, and the liquidity and functionality of global trade. As Part I of this report notes, geological evidence suggests that the volumes of LNG export under consideration would not materially affect the availability of natural gas for the domestic market. Twenty years of LNG exports at the rate of 6 bcf/day, phased in over the course of 6 years, would increase demand by approximately 38 tcf. As presented in Part I, four existing estimates of total technically recoverable shale gas resources range from 687 tcf to 1,842 tcf; therefore, exporting 6 bcf/day of LNG over the course of twenty years would consume between 2 and 5.5 percent of total shale gas resources. While the estimates for **shale gas reserves are uncertain**, in a scenario where reserves are perceived to be lower than expected, domestic natural gas prices would increase and exports would almost immediately become uneconomic. In the long-term, it is possible that U.S. prices and international prices will converge to the point at which they settle at similar levels. In that case, the United States would have more than adequate import capacity (through bi-directional import/export facilities) to import gas when economic. A further gas-related consideration with regard to energy security is the effects of increased production of associated natural gas with the increasing volumes of U.S. unconventional oil. As the primary energy-security concern for the United States related to oil, the application of fracking and horizontal drilling in oil production is reducing U.S. oil import dependence, while simultaneously producing substantial volumes of natural gas, which, given the relative economics of oil and gas, is effectively delivered at zero (or, in the case of producers who have to invest in equipment to manage flaring and venting, negative) cost. To the extent that associated gas from unconventional oil production is used for LNG export, it can be seen as a consequence of—rather than a threat to—increased U.S. energy security. international implications The international implications of LNG exports from the United States can be divided into pricing, geopolitics, and environment. international Pricing As discussed in Part I, the global LNG market is informally separated into three markets: North America, the Atlantic Basin (mostly Europe), and the Pacific Basin (including Japan, South Korea, Taiwan, China, and India). These markets are separated because of important technical differences that impact the pricing structure for LNG in each market. The North American natural gas market is competitive and prices are traded in a transparent and open market. The Atlantic Basin is dominated by European LNG consumers such as the United Kingdom, Spain, France, and Italy, and is a hybrid of a competitive U.K. market that was liberalized in the mid-1990s and a Continental European market that is dominated by oil-linked, take-or-pay contracts. In recent years, the U.K. hub, the National Balancing Point (NBP), has traded at a premium to the U.S. hub, the Henry Hub. The Pacific Basin is a more rigid market that depends heavily on oilindexed contracts that are more expensive than those used in the Atlantic Basin. While they have no central trading hub, the Pacific Basin consumers such as Japan and South Korea (which is implementing its recently-signed free-trade agreement with the United States) currently import LNG based on a pricing formula known informally as the Japan Crude Cocktail, the average price of custom-cleared oil imports into Tokyo. Many Pacific Basin contracts have a built-in price floor and price ceiling depending on the price of oil. 106 Without exporting any natural gas, the U.S. shale gas “revolution” has already had a positive impact on the liquidity of global LNG markets. Many LNG cargoes that were previously destined for gas-thirsty U.S. markets were diverted and served spot demand in both the Atlantic and Pacific Basins. The increased availability of LNG cargoes has helped create a looser LNG market for other consumers (see figure 9). This in turn has helped apply downward pressure to the terms of oillinked contracts resulting in the renegotiation of some contracts, particularly in Europe. Increased availability of LNG cargoes also accelerated a recent trend of increasing reliance of consumers on spot LNG markets. In 2010 short-term and spot contracts represented 19 percent of the total LNG market, up from only a fraction one decade earlier. 107 In this case, increasing demand for spot cargoes indicates that consumers are taking advantage of spot prices that are lower than oilindexed rates. LNG exports will help to sustain market liquidity in what looks to be an increasingly tight LNG market beyond 2015 (see figure 10). Should LNG exports from the United States continue to be permitted, they will add to roughly 10 bcf/day of LNG that is expected to emerge from Australia between 2015 and 2020. Nevertheless, given the projected growth in demand for natural gas in China and India and assuming that some of Japan’s nuclear capacity remains offline, demand for natural gas will outpace the incremental supply. This makes U.S. LNG even more valuable on the international market. Although it will be important to global LNG markets, it is unlikely that the emergence of the United States as an exporter of LNG will change the existing pricing structure overnight. Not only is the market still largely dependent on long-term contracts, the overwhelming majority of new liquefaction capacity emerging in the next decade (largely from Australia) has already been contracted for at oil-indexed rates. 108 The incremental LNG volumes supplied by the United States at floating Henry Hub rates will be small in comparison. But while U.S. LNG will not have a transformational impact, by establishing an alternate lower price for LNG derived through a different market mechanism, U.S. exports may be central in catalyzing future changes in LNG contract structure. As previously mentioned, this impact is already be ing felt in Europe. A number of German utilities have either renegotiated contracts or are seeking arbitration with natural gas suppliers in Norway and Russia. The Atlantic Basin will be a more immediate beneficiary of U.S. LNG exports than the Pacific Basin as many European contracts allow for periodic revisions to the oil-price linkage. 109 In the Pacific Basin this contractual arrangement is not as common and most consumers are tied to their respective oil-linkage formulae for the duration of the contract. 110 Despite the increasing demand following the Fukushima nuclear accident, however, Japanese LNG consumers are actively pursuing new arrangements for LNG contracts. 111 There are other limits to the extent of the impact that U.S. LNG will have on global markets. It is unlikely that many of the LNG export facilities under consideration will reach final investment decision. Instead, it is more probable that U.S. natural gas prices will have rebounded sufficiently to the point that exports are not commercially viable beyond a certain threshold. (figure 11 illustrates the estimated costs of delivering LNG to Japan in 2020.) This threshold, expected by many experts to be roughly 6 bcf/day by 2025, is modest in comparison to the roughly 11 bcf/day of Australian LNG export projects that have reached final investment decision and are expected to be online by 2020. Also, the impact of U.S. LNG exports could be limited by a number of external factors that will have a larger bearing on the future of global LNG prices. For instance, a decision by the Japanese government to phase-out nuclear power would significantly tighten global LNG markets and probably displace any benefit provided by U.S. LNG exports. Conversely, successful and rapid development of China’s shale gas reserves would limit the demand of one of the world’s fastest-growing natural gas consumers. However, to the extent that U.S. LNG exports can help bring about a more globalized pricing structure, they will have economic and geopolitical consequences. Geopolitics A large increase in U.S. LNG exports would have the potential to increase U.S. foreign policy interests in both the Atlantic and Pacific basins. Unlike oil, natural gas has traditionally been an infrastructure-constrained business, giving geographical proximity and political relations between producers and consumers a high level of importance. Issues of “pipeline politics” have been most directly visible in Europe, which relies on Russia for around a third of its gas. Previous disputes between Moscow and Ukraine over pricing have led to major gas shortages in several E.U. countries in the winters (when demand is highest) of both 2006 and 2009. Further disagreements between Moscow and Kiev over the terms of the existing bilateral gas deal have the potential to escalate again, with negative consequences for E.U. consumers. The risk of high reliance on Russian gas has been a principal driver of European energy policy in recent decades. Among central and eastern European states, particularly those formerly aligned with the Soviet Union such as Poland, Hungary, and the Czech Republic, the issue of reliance on imports of Russian gas is a primary energy security concern and has inspired energy policies aimed at diversification of fuel sources for power generation. From the U.S. perspective such Russian influence in the affairs of these democratic nations is an impediment to efforts at political and economic reform. The market power of Gazprom, Russia’s state-owned gas monopoly, is evident in these countries. Although they are closer to Russia than other consumers of Russian gas in Western Europe, many countries in Eastern and Central Europe pay higher contract prices for their imports, as they are more reliant on Russian gas as a proportion of their energy mixes. In the larger economies of Western Europe, which consume most of Russia’s exports, there are efforts to diversify their supply of natural gas. The E.U. has formally acknowledged the need to put in place mechanisms to increase supply diversity. These include market liberalization approaches such as rules mandating third-party access to pipeline infrastructure (from which Gazprom is demanding exemption), and commitments to complete a single market for electricity and gas by 2014, and to ensure that no member country is isolated from electricity and gas grids by 2015. 112 Despite these formal efforts, there are several factors retarding the E.U.’s push for a unified effort to reduce dependence on Russian gas. National interest has been given a higher priority than collective, coordinated E.U. energy policy: the gas cutoffs in 2006 and 2009 probably contributed to the acceptance of the Nord Stream project, which carries gas from Russia into Germany. Germany’s decision to phase out its fleet of nuclear reactors by 2022 will result in far higher reliance on natural gas for the E.U.’s biggest economy. The environmental imperative to reduce carbon emissions—codified in the E.U.’s goal of essentially decarbonizing its power sector by the middle of century—mean that natural gas is being viewed by many as the short-to medium fuel of choice in power generation. Finally, the prospects for European countries to replicate the unconventional gas “revolution” that has resulted in a glut of natural gas in the United States look uncertain. Several countries, including France and the U.K., have encountered stiff public opposition to the techniques used in unconventional gas production, while those countries, such as Poland and Hungary, that have moved ahead with unconventional-gas exploration have generally seen disappointing early results. Collectively, these factors suggest that the prospects for reduced European reliance on Russian gas appear dim. The one factor that has been working to the advantage of advocates of greater European gas diversity has been the increased liquidity of the global LNG market, discussed above. Russia’s dominant position in the European gas market is being eroded by the increased availability of LNG. Qatar’s massive expansion in LNG production in 2008, coupled with the rise in unconventional gas production in the United States as well as a drop in global energy demand due to the global recession, produced a global LNG glut that saw many cargoes intended for the U.S. market diverted into Europe. As mentioned previously, with an abundant source of alternative supply, some European consumers, mainly Gazprom’s closest partners, were able to renegotiate their oil-linked, takeor-pay contracts with Gazprom. As figure 10 illustrates, however, in the wake of the Fukushima natural disaster and nuclear accident in Japan and a return to growth in most industrialized economies, the LNG market is projected to tighten considerably in the short-term, potentially returning market power to Russia. However, there is a second, structural change to the global gas market that may have more lasting effects to Russia’s market power in the European gas market. LNG is one of the fastest growing segments of the energy sector. The growth of the LNG market, both through long-term contract and spot-market sales, is likely to put increasing pressure on incumbent pipeline gas suppliers. A significant addition of U.S. LNG exports will accelerate this trend. In addition to adding to the size of the market, U.S. LNG contracts are likely to be determined on a “floating” basis, with sales terms tied to the price of a U.S. benchmark such as Henry Hub, eroding the power of providers of long-term oil linked contract suppliers such as Russia. While U.S. LNG will not be a direct tool of U.S. foreign policy—the destination of U.S. LNG will be determined according to the terms of individual contracts, the spot-price-determined demand, and the LNG traders that purchase such contracts—the addition of a large, market-based producer will indirectly serve to increase gas supply diversity in Europe, thereby providing European consumers with increased flexibility and market power. Increased LNG exports will provide similar assistance to strategic U.S. allies in the Pacific Basin. By adding supply volumes to the global LNG market, the U.S. will help Japan, Korea, India, and other import-dependent countries in South and East Asia to meet their energy needs. The desire on the part of Pacific Basin countries for the U.S. to become a gas supplier to the region has been underlined by the efforts of the Japanese government, which has attempted to secure a free-trade agreement waiver from the United States to allow exports. As with oil price-linked Russian gas contracts in Eu- rope, U.S. LNG exports linked to a floating Henry Hub benchmark, have the potential to weaken the market power of incumbent LNG providers to Asia, increasing the negotiating power of consumers and decreasing the price. As U.S. foreign policy undergoes a “pivot to Asia,” the ability of the U.S. to provide a degree of increased energy security and pricing relief to LNG importers in the region will be an important economic and strategic asset. Beyond the basin-specific considerations of U.S. LNG exports, they would provide a source of predictable natural gas supply that is relatively free from unexpected production or shipping disruption. With Qatar representing roughly one-third of the global LNG market, a blockade or military intervention in the Strait of Hormuz or a direct attack on Qatar’s liquefaction facilities by Iran would inflict chaos on world energy markets. While the United States government will be unable to physically divert LNG cargoes to specific markets or strategic allies that are most affected (gas allocation will be made by the market players), additional volumes of LNG on the world market will benefit all consumers. international Environmental implications Proposed LNG exports from the United States have encountered domestic opposition on environmental grounds. As outlined in Part I, natural gas production causes greenhouse gas emissions in the upstream production process through leakages, venting, and flaring. The greenhouse gas footprint of shale gas production has been the subject of vigorous debate, with some studies suggesting that methane from the production process leads to shale gas having a higher global warming impact than that of other hydrocarbons including coal. While the methodology underlying such studies has been widely criticized, there is no doubt that leakage and venting of natural gas is a serious negative environmental consequence of natural gas production and transportation: EPA has estimated that worldwide leakages and venting volumes were 3,353.5 bcf in 2010. 113 By contrast, some advocates of U.S. exports of LNG maintain that they have the potential to bring global environmental benefits if they are used to displace more carbon-intensive fuels. According to the IEA, natural gas in general has the potential to reduce carbon dioxide emissions by 740 million tonnes in 2035, nearly half of which could be achieved by the displacement of coal in China’s power-generation portfolio. Natural gas—in the form of LNG—also has the potential to displace more carbon-intensive fuels in other major energy users, including across the EU and in Japan, which is being forced to burn more coal and oil-based fuels to make up for the nuclear generation capacity lost in the wake of the Fukushima disaster. In addition to its relatively lower carbon-dioxide footprint, natural gas produces lower emissions of pollutants such as sulfur dioxide nitrogen oxide and other particulates than coal and oil. Natural gas—both in the form of LNG and compressed natural gas—is also being viewed as a potential replacement for oil in the vehicle transportation fleet, with large carbon dioxide abatement potential. 114 However, as discussed in Part I, even the United States with its low gas prices is unlikely to see any significant move toward natural gas vehicles in the absence of government policies; the prospects for such vehicles entering the European or Asian markets, where gas is several times as expensive, are remote. On the other hand, additional volumes of natural gas in the global power generation fleet may also have longer-term detrimental consequences for carbon emissions. According to the IEA, by backing out nuclear and renewable energy generation, natural gas could add 320Mt of carbon dioxide by 2035. 115 Whether U.S. LNG exports contribute to reduced carbon dioxide emissions through the displacement of coal fired power generation or to the crowding out of renewable and nuclear energy in the global energy mix is something of a moot point. According to the IEA, global power generation is projected to exceed 27,000 terawatt hours per year by 2020. 116 Even assuming U.S. exports of 6 bcf/day (on the upper end of the range of expectations), zero losses due to transportation, regasification, and transmission, and a high natural gas power plant efficiency level of 60 percent, such volumes would account for just over one percent of total global power generation. 117 Therefore, although the domestic environmental impacts associated with shale gas extraction may, pending the outcome of further study, prove to be a cause for concern with respect to greenhouse gas emissions, the potential for U.S. LNG exports to make a meaningful impact on global emissions through changes to the global power generation mix is negligible. T his paper has attempted to answer two questions: Are U.S. LNG exports feasible? If so, what are the implications of U.S. LNG exports? **For exports to be feasible, several demand and supply-related conditions need to be met**. On the supply side, adequate resources must be available and their production must be sustainable over the long-term. The regulatory and policy environment will need to accommodate natural gas production to ensure that the resources are developed. The capacity and infrastructure required to enable exports must also be in place. This includes the adequacy of the pipeline and storage network, the availability of shipping capacity, and the availability of equipment for production and qualified engineers. On the demand side, LNG exports will compete with two main other domestic end uses for natural gas: the power-generation sector, and the industrial and petrochemical sector. According to most projections, the U.S. electricity sector will see an increased demand for natural gas as it seeks to comply with policies and regulations aimed at reducing carbon-dioxide emissions and pollutants from the power-generation fleet. Cheaper natural gas in the industrial sector has the potential to lower the cost of petrochemical production and to improve the competitiveness of a range of refining and manufacturing operations. Advocates of natural gas usage in the transportation fleet – particularly in heavy-duty vehicles (HDVs) – see it as a way to decrease the country’s dependence on oil, although absent major policy support, this sector is unlikely to represent a significant source of gas demand. For increased U.S. LNG exports to be feasible, they will also need to be competitive with supplies from other sources. The major demand centers that would import U.S. LNG would be Pacific Basin consumers (Japan, South Korea, and Taiwan, and increasingly China and India), and Atlantic Basin consumers, mostly in Europe. The supply and demand balance in the Atlantic and Pacific Basins and, therefore the feasibility for natural gas exports from the United States, depend heavily on the uncertain outlook for international unconventional natural gas production. Recent assessments in countries such as China, India, Ukraine, and Poland indicate that each country has significant domestic shale gas reserves. If these reserves are developed effectively—which is likely to be difficult in the short-term due to a lack of infrastructure, physical capacity, and human capacity—many of these countries would dramatically decrease their import dependence, with negative implications for existing and newcomer LNG exporters. Detailed analysis of the foregoing factors suggests that the exportation of liquefied natural gas from the United States is logistically feasible. Based on current knowledge, the domestic U.S. natural gas resource base is large enough to accommodate the potential increased demand for natural gas from the electricity sector, the industrial sector, the residential and commercial sectors, the transportation sector, and exporters of LNG. Other obstacles to production, including infrastructure, investment, environmental concerns, and human capacity, are likely to be surmountable. Moreover, the current and projected supply and demand fundamentals of the international LNG market are conducive to competitive U.S.-sourced LNG. While LNG exports may be practically feasible, they will be subject to approval by policy makers if they are to happen. In making a determination on the advisability of exports, the federal government will focus on the likely implications of LNG exports: i.e. whether LNG exports are in the “public interest.” The extent of the domestic implications is largely dependent upon the price impact of exports on domestic natural gas prices. While it is clear that domestic natural gas prices will increase if natural gas is exported, most existing analyses indicate that the implications of this price increase are likely to be modest.

#### Nuclear power puts downward pressure on natural gas prices – that makes exports politically viable

Perry 12 (Mark J., Scholar – AEI, Professor of Economics and Finance – University of Michigan, “Natural gas and nuclear power need to share the lead in power generation for the future,” American Enterprise Institute, 9-26, http://www.aei.org/article/natural-gas-and-nuclear-power-need-to-share-the-lead-in-power-generation-for-the-future/)

Recent advances in drilling technologies have unleashed a boom in domestic natural gas production. The United States may have more than 100 years' worth of gas reserves, and perhaps much more, including large untapped resources in Michigan. Policy makers are increasingly looking to natural gas as the locomotive of economic growth. A striking example is the increasing use of gas in electricity production. For the last several years, natural gas has accounted for more than 80% of new electric generating capacity in the United States. It now provides 32% of total electricity generation, up from 25% just two years ago, and its share could reach 50% by 2030. Natural gas, of course, has many virtues as a fuel. Its carbon content is less than half that of coal and it emits no mercury or other toxic particulates. But natural gas is needed for **much more than electricity generation**. In addition to residential and commercial heating, gas accounts for the bulk of the fuel used by the petrochemical industry. Manufacturing relies on the availability of cheap gas, and its use in transportation is increasing. Additionally, gas producers are **gearing up to export some of the gas to markets in Europe and Asia**, where gas costs up to five times more than it does in the United States. A dozen or more U.S. companies have applied for licenses to export liquefied natural gas from terminals, mainly on the Gulf of Mexico. Because of its multiple uses and rising popularity, the demand for natural gas is starting to increase, and its price could rise significantly. That is a real possibility, and would be consistent with its long history of price volatility. If we hope to maintain the security of our energy supply, we will need to expand the use of other energy sources, including nuclear power, which is also environmentally attractive and affordable. Although the capital cost of building a nuclear plant is high, the average price of nuclear-generated electricity is **lower than** power produced from **natural gas**. In 2011, the production cost of nuclear power was 2.19 cents per kilowatt-hour, compared to 4.51 cents for natural gas and 3.23 cents for coal. Today about 20% of America’s electricity comes from nuclear power. But demand for electricity is growing steadily and that trend will continue in the future. Without building new nuclear plants, pressure will build to use even more natural gas for electricity generation, making less available for manufacturing and transportation.

#### Natural gas demand is closely monitored – perception of the plan triggers the link

Burnes et al 12-7 (John, Lisa Epifani, Curt Moffatt, Janna Chesno, Partner – VanNess Feldman, “DOE Releases LNG Export Study and Requests Public Comment,” VanNess Feldman, 2012, http://www.vnf.com/news-alerts-778.html)

Exports of natural gas, including LNG, must be authorized by DOE’s Office of Fossil Energy. By statute, exports of LNG to FTA nations must be approved “without modification or delay”. By contrast, before approving an application to export LNG to non-FTA nations, DOE must determine that the export is and will remain in the “public interest”. DOE’s primary focus is upon the domestic need for the gas to be exported. In May 2011, DOE conditionally authorized Sabine Pass Liquefaction, LLC (Sabine Pass) to export LNG to non-FTA nations. The authorization was finalized in August 2012. This remains the only long-term DOE authorization to export LNG from the lower 48 states to non-FTA nations. In the Sabine Pass order, DOE determined that it had a continuing duty to protect the public interest, and announced that it would monitor gas supply/demand conditions in the United States and the world to ensure that the cumulative impacts of the exports authorized in the order and in future orders would not lead to a reduction in the supply of natural gas needed to meet essential domestic needs. DOE also provided notice that it would take any action in the future, including amending or even revoking export authorizations, as appropriate or necessary to protect the public interest.

#### Plan kills Russia’s economy

Mead 12

Walter Russell Mead, April 25, 2012 (Professor of Foreign Affairs and Humanities at Bard College, Henry A. Kissinger senior fellow for U.S. foreign policy at the Council on Foreign Relations (CFR), and Editor-at-Large of The American Interest magazine), , The American Interest, North American Shale Gas Gives Russia Serious Headache, <http://blogs.the-american-interest.com/wrm/2012/04/25/north-american-shale-gas-gives-russia-serious-headache/>

North America’s shale gas boom is chipping away at the market for gas producers like Russia. What’s more, if the United States becomes a gas exporter, Russia’s customers (especially in Europe) could decide to cancel expensive contracts with Gazprom in favor of cheaper American natural gas. “If the US starts exporting LNG to Europe and Asia, it gives [customers there] an argument to renegotiate their prices with Gazprom and Qatar, and they will do it,” says Jean Abiteboul, head of Cheniere supply & marketing. Gazprom supplied 27 percent of Europe’s natural gas in 2011. While American gas is trading below $2 per MMBTU (million British thermal units), Gazprom’s prices are tied to crude oil markets, and its long-term contracts charge customers roughly $13 per MMBTU, says the *FT*. European customers would love to reduce their dependence on Gazprom and start to import American gas. Already Gazprom has had to make concessions to its three biggest customers, and others are increasingly dissatisfied with their contracts. Worse, from Russia’s point of view: evidence that western and central Europe contain substantial shale gas reserves of their own. Fracking is unpopular in thickly populated, eco-friendly Europe, but so are high gas prices. All this ought to give Russia serious heartburn. Eroding Gazprom’s dominance of the European energy market would be a major check on Russian economic growth and political influence.

**Goes nuclear and turns case**

**Filger 9** (Sheldon, Columnist and Founder – Global EconomicCrisis.com, “Russian Economy Faces Disasterous Free Fall Contraction”, <http://www.huffingtonpost.com/sheldon-filger/russian-economy-faces-dis_b_201147.html>)

In Russia, historically, economic health and political stability are intertwined to a degree that is rarely encountered in other major industrialized economies. It was the economic stagnation of the former Soviet Union that led to its political downfall. Similarly, Medvedev and Putin, both intimately acquainted with their nation's history, are unquestionably alarmed at the prospect that Russia's economic crisis will endanger the nation's political stability, achieved at great cost after years of chaos following the demise of the Soviet Union. Already, strikes and protests are occurring among rank and file workers facing unemployment or non-payment of their salaries. Recent polling demonstrates that the once supreme popularity ratings of Putin and Medvedev are eroding rapidly. Beyond the political elites are the financial oligarchs, who have been forced to deleverage, even unloading their yachts and executive jets in a desperate attempt to raise cash. Should the Russian economy deteriorate to the point where economic collapse is not out of the question, the impact will go far beyond the obvious accelerant such an outcome would be for the Global Economic Crisis. There is a geopolitical dimension that is even more relevant then the economic context. Despite its economic vulnerabilities and perceived decline from superpower status, Russia remains one of only two nations on earth with a nuclear arsenal of sufficient scope and capability to destroy the world as we know it. For that reason, it is not only President Medvedev and Prime Minister Putin who will be lying awake at nights over the prospect that a national economic crisis can transform itself into a virulent and destabilizing social and political upheaval. It just may be possible that U.S. President Barack Obama's national security team has already briefed him about the consequences of a major economic meltdown in Russia for the peace of the world. After all, the most recent national intelligence estimates put out by the U.S. intelligence community have already concluded that the Global Economic Crisis represents the greatest national security threat to the United States, due to its facilitating political instability in the world. During the years Boris Yeltsin ruled Russia, security forces responsible for guarding the nation's nuclear arsenal went without pay for months at a time, leading to fears that desperate personnel would illicitly sell nuclear weapons to terrorist organizations. If the current economic crisis in Russia were to deteriorate much further, how secure would the Russian nuclear arsenal remain? It may be that the financial impact of the Global Economic Crisis is its least dangerous consequence.

### 1NC Solvency

#### Restrictions on nuclear exports block US competitiveness

NEI 12 (Nuclear Energy Institute, “U.S. Nuclear Export Rules Hurt Global Competitiveness,” Winter, http://www.nei.org/resourcesandstats/publicationsandmedia/insight/insightwinter2012/us-nuclear-export-rules-hurt-global-competitiveness/)

Fifty years ago, the United States was the global leader in nuclear technology and services, the first country to harness atoms for peace, and the first to profit from it internationally. Today, U.S. dominance of the global nuclear power market has eroded as suppliers from other countries compete aggressively against American exporters. U.S. suppliers confront competitors that benefit from various forms of state promotion and also must contend with a U.S. government that has not adapted to new commercial realities. The potential is tremendous—$500 billion to $740 billion in international orders over the next decade, representing tens of thousands of potential American jobs, according to the U.S. Department of Commerce. With America suffering a large trade deficit, nuclear goods and services represent a market worth aggressive action. However, **antiquated U.S. government approaches to nuclear exports are** challenging U.S. competitiveness in the nuclear energy market. New federal support is needed if the United States wants to reclaim dominance in commercial nuclear goods and services—and create the jobs that go with them. “The U.S. used to be a monopoly supplier of nuclear materials and technology back in the ’50s and ’60s,” said Fred McGoldrick, former director of the Office of Nonproliferation and Export Policy at the State Department. “That position has eroded to the point where we’re a minor player compared to other countries.” America continues to lead the world in technology innovation and know-how. So what are the issues? And where is the trade? Effective coordination among the many government agencies involved in nuclear exports would provide a boost to U.S. suppliers. “Multiple U.S. agencies are engaged with countries abroad that are developing nuclear power, from early assistance to export controls to trade finance and more,” said Ted Jones, director for supplier international relations at NEI. The challenge is to create a framework that allows commercial nuclear trade to grow while ensuring against the proliferation of nuclear materials. “To compete in such a situation, an ongoing dialogue between U.S. suppliers and government needs to be conducted and U.S. trade promotion must be coordinated at the highest levels,” Jones said. Licensing U.S. Exports Jurisdiction for commercial nuclear export controls is divided among the Departments of Energy and Commerce and the Nuclear Regulatory Commission and has not been comprehensively updated to coordinate among the agencies or to reflect economic and technological changes over the decades. The State Department also is involved in international nuclear commerce. It negotiates and implements so-called “123 agreements” that allow for nuclear goods and services to be traded with a foreign country. The federal agencies often have different, conflicting priorities, leading to a lack of clarity for exporters and longer processing times for export licenses. “The U.S. nuclear export regime is the most complex and restrictive in the world and the least efficient,” said Jones. “Furthermore, it is poorly focused on items and technologies that pose little or no proliferation concern. By trying to protect too much, we risk diminishing the focus on sensitive technologies and handicapping U.S. exports.” A case in point is the Energy Department’s Part 810 regulations. While 123 agreements open trade between the United States and other countries, Part 810 regulates what the United States can trade with another country. For certain countries, it can take more than a year to obtain “specific authorizations” to export nuclear items. Because other supplier countries authorize exports to the same countries with fewer requirements and delays, the Part 810 rules translate into a significant competitive disadvantage for U.S. suppliers.

Thorium fails

Kawa, 12/19/12 – writer for BusinessInsider (Lucas, “There's One Big Obstacle To US Development Of Thorium.” http://www.businessinsider.com/how-natural-gas-is-crowding-out-thorium-2012-12)

Last week Norway joined India, China, and others in testing thorium, regarded by some as the energy source of the future.

Gary Krellenstein is one of those people. This former JP Morgan Energy and Environment Director penned a report calling thorium “The Best, Most Overlooked Solution to Global Warming and Long-Term Energy Supply.”

He’s quick to trumpet the benefits of thorium, especially compared to uranium (most of which we’ve discussed before) but also provides a perspective on some of thorium’s disadvantages, which include:

High capital costs ($4000-$10,000/kW)

Little existing infrastructure, no commercially operating plants

Long lead times (estimated at over 10 years) and licensing issues

The bad reputation of nuclear energy, due to meltdowns at Chernobyl and Fukushima

But these aren’t the definitive factors that have prevented thorium’s proliferation – Krellenstein has a very direct answer for what’s keeping thorium on the sidelines:

The natural gas revolution.

Krellenstein claims that advances in fracking technology gives the U.S. another 100 years of domestic natural gas reserves, under current demand. Moreover, the price is expected to stay under $5/million cubic feet through 2022.

His conclusion:

Thorium power technology cannot economically compete with electricity generated by gas so long as NG prices remain in the $3-$6 per mmbtu price range.

Simply, investors (who don't care about societal benefits of thorium) have to go for the best possible return on their principal. Krellenstein develops the argument that this means choosing natural gas – for now:

Gas plants can be build more quickly and are cheaper than nuclear plants

Natural gas has less harmful emissions than other fossil fuels

Alternative energy sources are too expensive and unreliable

He doesn’t see contamination caused by fracking as a threat to natural gas production, stating that it “appears to be a problem only where the shale is near the water aquifer, and there is no shortage of deep shale deposits.”

But, in his opinion, there's only so long before we transition to thorium. Here's a list the preconditions Krellenstein thinks are necessary for thorium to thrive:

Stricter regulations regarding greenhouse gases

Tests which demonstrate its viability

Investment grade credit ratings in order to finance the project

Price guarantees from contractors

Public knowledge of the benefits of thorium

A stronger global economy

#### Plan picks winners – turns the case

Loris, 11 – analyst at The Heritage Foundation (Nick, May. “Stop Picking Energy Winners and Losers with the Tax Code.” http://[www.heritage.org/research/commentary/2011/05/stop-picking-energy-winners-and-losers-with-the-tax-code](http://www.heritage.org/research/commentary/2011/05/stop-picking-energy-winners-and-losers-with-the-tax-code))

First, special tax credits for cherry-picked technologies artificially reduce the price for consumers. This makes them seem far more competitive than they actually are. Rather than increase competition, the artificial market distortion gives these technologies an unfair price advantage over other technologies. The more concentrated the subsidy or preferential treatment, the worse the policy is because the crowding-out effect for other technologies is larger. If subsidized technologies are market viable, then the tax break merely offsets private-sector costs for investments that would have been made either way. This creates industry complacency and perpetuates economic inefficiency by disconnecting market success from production costs. Furthermore, when the government becomes involved in the decision-making process, it increases the business incentive to send lobbyists to Capitol Hill to make their pitch why their industry needs those tax credits. Industries will plead that they need five years of tax credits then they’ll be good to go on their own. Five years later, they’re asking for five more years. These specific carve outs reduce the incentive for producers to be cost competitive with technologies that do not rely on help from the government.

### 1NC Warming

#### Warming is irreversible

ANI 10 (“IPCC has underestimated climate-change impacts, say scientists”, 3-20, One India, http://news.oneindia.in/2010/03/20/ipcchas-underestimated-climate-change-impacts-sayscientis.html)

According to Charles H. Greene, Cornell professor of Earth and atmospheric science, "Even if all man-made greenhouse gas emissions were stopped tomorrow and carbon-dioxide levels stabilized at today's concentration, by the end of this century, the global average temperature would increase by about 4.3 degrees Fahrenheit, or about 2.4 degrees centigrade above pre-industrial levels, which is significantly above the level which scientists and policy makers agree is a threshold for dangerous climate change." "Of course, greenhouse gas emissions will not stop tomorrow, so the actual temperature increase will likely be significantly larger, resulting in potentially catastrophic impacts to society unless other steps are taken to reduce the Earth's temperature," he added. "Furthermore, while the oceans have slowed the amount of warming we would otherwise have seen for the level of greenhouse gases in the atmosphere, the ocean's thermal inertia will also slow the cooling we experience once we finally reduce our greenhouse gas emissions," he said. This means that the temperature rise we see this century will be largely irreversible for the next thousand years. "Reducing greenhouse gas emissions alone is unlikely to mitigate the risks of dangerous climate change," said Green.

#### 1AC evidence says that we will inevitably hit 600 ppm even after emissions are stopped today – triggers their impact

#### Long timeframe and adaptation solves

Robert O. Mendelsohn 9, the Edwin Weyerhaeuser Davis Professor, Yale School of Forestry and Environmental Studies, Yale University, June 2009, “Climate Change and Economic Growth,” online: http://www.growthcommission.org/storage/cgdev/documents/gcwp060web.pdf

The heart of the debate about climate change comes from a number of warnings from scientists and others that give the impression that human-induced climate change is an immediate threat to society (IPCC 2007a,b; Stern 2006). Millions of people might be vulnerable to health effects (IPCC 2007b), crop production might fall in the low latitudes (IPCC 2007b), water supplies might dwindle (IPCC 2007b), precipitation might fall in arid regions (IPCC 2007b), extreme events will grow exponentially (Stern 2006), and between 20–30 percent of species will risk extinction (IPCC 2007b). Even worse, there may be catastrophic events such as the melting of Greenland or Antarctic ice sheets causing severe sea level rise, which would inundate hundreds of millions of people (Dasgupta et al. 2009). Proponents argue there is no time to waste. Unless greenhouse gases are cut dramatically today, economic growth and well‐being may be at risk (Stern 2006).

These statements are largely alarmist and misleading. Although climate change is a serious problem that deserves attention, society’s immediate behavior has an extremely low probability of leading to catastrophic consequences. The science and economics of climate change is quite clear that emissions over the next few decades will lead to only mild consequences. The severe impacts predicted by alarmists require a century (or two in the case of Stern 2006) of no mitigation. Many of the predicted impacts assume there will be no or little adaptation. The net economic impacts from climate change over the next 50 years will be small regardless. Most of the more severe impacts will take more than a century or even a millennium to unfold and many of these “potential” impacts will never occur because people will adapt. It is not at all apparent that immediate and dramatic policies need to be developed to thwart long‐range climate risks. What is needed are long‐run balanced responses.

#### Aff makes no sense – first advantage says REGULAR nuclear power is sufficient to solve, but the second advantage says REGULAR nuclear power is inevitable – status quo solves the aff.

#### Nuclear doesn’t solve warming –

#### Takes too long and can’t reduce emissions

**Madsen and Dutzik, 9** – Policy Analyst at Frontier Group and senior policy analyst with Frontier Group (Travis and Tony, November. With Bernadette Del Chiaro and Rob Sargent of the Environment America Research & Policy Center. “Generating Failure: How Building Nuclear Power Plants Would Set America Back in the Race Against Global Warming.” http://www.environmentamerica.org/sites/environment/files/reports/Generating-Failure---Environment-America---Web\_0.pdf)

Building 100 new nuclear reactors would happen too slowly to reduce global warming pollution in the near-term, and would actually increase the scale of emission cuts required in the future. At best, the nuclear industry could have a new reactor up and running by 2016, assuming that construction could be completed in four years. This pace would be faster than 80 to 95 percent of all reactors completed during the last wave of reactor construction in the United States. 70 If construction follows historical patterns, it could take nine years after a license is issued before the first reactor is up and running – into the 2020s. Under this very plausible scenario, new nuclear power could make no contribution toward reducing U.S. emissions of global warming pollution by 2020 – despite the investment of hundreds of billions of dollars for the construction of nuclear power plants. And even if the industry completed 100 new reactors by 2030, which is highly unlikely, these reactors would reduce cumulative power plant emissions of carbon dioxide over the next two decades by only 12 percent below business as usual, when a reduction of more than 70 percent is called for. In other words, 100 new nuclear reactors would be too little, too late to successfully meet our goals for limiting the severity of global warming.

### 1NC Prolif

#### Thorium doesn’t solve prolif – still requires enriched uranium or plutonium and reprocessing

Makhijani and Boyd, 9 – President of the Institute for Energy and Environmental Research, and Director of the Safe Energy Program at Physicians for Social Responsibility (Arjun and Michele, July. “Thorium Fuel: No Panacea for Nuclear Power.” PSR Fact Sheet. http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf)

Not a Proliferation Solution Thorium is not actually a “fuel” because it is not fissile and therefore cannot be used to start or sustain a nuclear chain reaction. A fissile material, such as uranium-235 (U-235) or plutonium-239 (which is made in reactors from uranium-238), is required to kick-start the reaction. The enriched uranium fuel or plutonium fuel also maintains the chain reaction until enough of the thorium target material has been converted into fissile uranium-233 (U- 233) to take over much or most of the job. An advantage of thorium is that it absorbs slow neutrons relatively efficiently (compared to uranium-238) to produce fissile uranium-233. The use of enriched uranium or plutonium in thorium fuel has proliferation implications. Although U-235 is found in nature, it is only 0.7 percent of natural uranium, so the proportion of U-235 must be industrially increased to make “enriched uranium” for use in reactors. Highly enriched uranium and separated plutonium are nuclear weapons materials. In addition, U-233 is as effective as plutonium-239 for making nuclear bombs. In most proposed thorium fuel cycles, reprocessing is required to separate out the U-233 for use in fresh fuel. This means that, like uranium fuel with reprocessing, bomb-making material is separated out, making it vulnerable to theft or diversion. Some proposed thorium fuel cycles even require 20% enriched uranium in order to get the chain reaction started in existing reactors using thorium fuel. It takes 90% enrichment to make weapons-usable uranium, but very little additional work is needed to move from 20% enrichment to 90% enrichment. Most of the separative work is needed to go from natural uranium, which has 0.7% uranium-235, to 20% U-235. It has been claimed that thorium fuel cycles with reprocessing would be much less of a proliferation risk because the thorium can be mixed with uranium-238. In this case, fissile uranium-233 is also mixed with non-fissile uranium-238. The claim is that if the uranium- 238 content is high enough, the mixture cannot be used to make bombs without a complex uranium enrichment plant. This is misleading. More uranium-238 does dilute the uranium-233, but it also results in the production of more plutonium-239 as the reactor operates. So the proliferation problem remains – either bomb-usable uranium-233 or bomb-useable plutonium is created and can be separated out by reprocessing. Further, while an enrichment plant is needed to separate U-233 from U-238, it would take less separative work to do so than enriching natural uranium. This is because U-233 is five atomic weight units lighter than U-238, compared to only three for U-235. It is true that such enrichment would not be a straightforward matter because the U-233 is contaminated with U-232, which is highly radioactive and has very radioactive radionuclides in its decay chain. The radiation-dose-related problems associated with separating U-233 from U-238 and then handling the U-233 would be considerable and more complex than enriching natural uranium for the purpose of bomb making. But in principle, the separation can be done, especially if worker safety is not a primary concern; the resulting U-233 can be used to make bombs. There is just **no way to avoid proliferation problems associated with thorium** fuel cycles that involve reprocessing. Thorium fuel cycles without reprocessing would offer the same temptation to reprocess as today’s once-through uranium fuel cycles.

#### No widespread proliferation

Hymans 12 (Jacques, Associate Professor of International Relations – USC, North Korea's Lessons for (Not) Building an Atomic Bomb, Foreign Affairs, 4-16, www.foreignaffairs.com/articles/137408/jacques-e-c-hymans/north-koreas-lessons-for-not-building-an-atomic-bomb?page=show)

Washington's miscalculation is not just a product of the difficulties of seeing inside the Hermit Kingdom. It is also a result of the broader tendency to overestimate the pace of global proliferation. For decades, Very Serious People have predicted that strategic weapons are about to spread to every corner of the earth. **Such warnings have routinely proved wrong** - for instance, the intelligence assessments that led to the 2003 invasion of Iraq - but they continue to be issued. In reality, despite the diffusion of the relevant technology and the knowledge for building nuclear weapons, the world has been experiencing a great proliferation slowdown. Nuclear weapons programs around the world are taking much longer to get off the ground - and their failure rate is much higher - than they did during the first 25 years of the nuclear age. As I explain in my article "Botching the Bomb" in the upcoming issue of Foreign Affairs, the key reason for the great proliferation slowdown is the absence of strong cultures of scientific professionalism in most of the recent crop of would-be nuclear states, which in turn is a consequence of their poorly built political institutions. In such dysfunctional states, the quality of technical workmanship is low, there is little coordination across different technical teams, and technical mistakes lead not to productive learning but instead to finger-pointing and recrimination. **These problems are debilitating**, and **they cannot be fixed** simply by bringing in more imported parts through illicit supply networks. In short, as a struggling proliferator, North Korea has a lot of company.

# Block

## Exports

### Impact Overview – 2NC

#### Russian econ decline outweighs – Econ decline causes political upheaval which causes loose nukes and preemption- that’s Filger

#### And- It’s most likely scenario for nuclear war and causes US draw in

Steven **David**, Professor of Political Science, Johns Hopkins University, “Saving America From the Coming Civil Wars,” FOREIGN AFFAIRS, v 78 n 1, Jan/Feb **1999**, LN.

Only three countries, in fact, meet both criteria: Mexico, Saudi Arabia, and Russia. Civil conflict in Mexico would produce waves of disorder that would spill into the United States, endangering the lives of hundreds of thousands of Americans, destroying a valuable export market, and sending a torrent of refugees northward. A rebellion in Saudi Arabia could destroy its ability to export oil, the oil on which the industrialized world depends. And internal war in Russia could devastate Europe and trigger the use of nuclear weapons. Of course, civil war in a cluster of other states could seriously harm American interests. These countries include Indonesia, Venezuela, the Philippines, Egypt, Turkey, Israel, and China. In none, however, are the stakes as high or the threat of war as imminent.

#### Plus it’s the Only existential risk

Nick **Bostrom** (PhD Philosophy – Oxford U) **2002** Existential Risks, http://www.nickbostrom.com/existential/risks.html)

A much greater existential risk emerged with the build-up of nuclear arsenals in the US and the USSR. An all-out nuclear war was a possibility with both a substantial probability and with consequences that *might* have been persistent enough to qualify as global and terminal. There was a real worry among those best acquainted with the information available at the time that a nuclear Armageddon would occur and that it might annihilate our species or permanently destroy human civilization.[4]  Russia and the US retain large nuclear arsenals that could be used in a future confrontation, either accidentally or deliberately. There is also a risk that other states may one day build up large nuclear arsenals. Note however that a smaller nuclear exchange, between India and Pakistan for instance, is not an existential risk, since it would not destroy or thwart humankind’s potential permanently. Such a war might however be a local terminal risk for the cities most likely to be targeted. Unfortunately, we shall see that nuclear Armageddon and comet or asteroid strikes are mere preludes to the existential risks that we will encounter in the 21st century.

### Turns Prolif and Terror

#### Russian Economic decline turns terrorism and prolif

**Speice 06**

 (Patrick F. Jr., J.D. Candidate at Marshall-Wyoming School of Law, B.A. from Wake Forest, “Negligence and Nuclear Nonproliferation: Eliminating the Current Liability Barrier to Bilateral U.S.-Russian Nonproliferation Assistance Programs”, William & Mary Law Review, February, Lexis)

Although no terrorist acts directed against the population or interests of the United States or other states have been launched with nuclear weapons yet, this failure "must be assumed to be due to lack of means rather than lack of motivation." Attempts by al-Qaeda to acquire nuclear material are well documented, and several other attempted thefts of nuclear material indicates that there is a demand for nuclear material among terrorist groups, many of which are hostile to the United States. ... [H]arsh economic conditions can create incentives for nuclear theft and smuggling. For people who are poorly housed, poorly fed, and poorly paid (when paid at all), there will be a temptation to do what they can to improve their lives and secure their futures. Russia's nuclear custodians face these pressures as they preside over weapons and materials that are immensely valuable to any state or group that covets nuclear weapons. It is not hard to imagine that people leading bleak, uncertain, and difficult lives might find irresistible the prospect of wealth and security via the nuclear black market... Organizations such as the Russian military and Minatom are now operating in circumstances of great stress. Money is in short supply, paychecks are irregular, living conditions unpleasant ... [D]isorder within Russia and the resulting strains within the military could easily cause a lapse or a breakdown in the Russian military's guardianship of nuclear weapons. 38 Accordingly, there is a significant and ever-present risk that terrorists could acquire a nuclear device or fissile material from Russia as a result of the confluence of Russian economic decline and the end of stringent Soviet-era nuclear security measures. 39 Terrorist groups could acquire a nuclear weapon by a number of methods, including "steal[ing] one intact from the stockpile of a country possessing such weapons, or ... [being] sold or given one by [\*1438] such a country, or [buying or stealing] one from another subnational group that had obtained it in one of these ways." 40 Equally threatening, however, is the risk that terrorists will steal or purchase fissile material and construct a nuclear device on their own. Very little material is necessary to construct a highly destructive nuclear weapon. 41 Although nuclear devices are extraordinarily complex, the technical barriers to constructing a workable weapon are not significant. 42 Moreover, the sheer number of methods that could be used to deliver a nuclear device into the United States makes it incredibly likely that terrorists could successfully employ a nuclear weapon once it was built. 43 Accordingly, supply-side controls that are aimed at preventing terrorists from acquiring nuclear material in the first place are the most effective means of countering the risk of nuclear terrorism. 44 Moreover, the end of the Cold War eliminated the rationale for maintaining a large military-industrial complex in Russia, and the nuclear cities were closed. 45 This resulted in at least 35,000 nuclear scientists becoming unemployed in an economy that was collapsing. 46 Although the economy has stabilized somewhat, there are still at least 20,000 former scientists who are unemployed or underpaid and who are too young to retire, raising the chilling prospect that these scientists will be tempted to sell their nuclear knowledge, or steal nuclear material to sell, to states or terrorist organizations with nuclear ambitions. 48 The potential consequences of the unchecked spread of nuclear knowledge and material to terrorist groups that seek to cause mass destruction in the United States are truly horrifying. A terrorist attack with a nuclear weapon would be devastating in terms of immediate human and economic losses. 49 Moreover, there would be immense political pressure in the United States to discover the perpetrators and retaliate with nuclear weapons, massively increasing the number of casualties and potentially triggering a full-scale nuclear conflict. 50 In addition to the threat posed by terrorists, leakage of nuclear knowledge and material from Russia will reduce the barriers that states with nuclear ambitions face and may trigger widespread proliferation of nuclear weapons. 51 This proliferation will increase the risk of nuclear attacks against the United States [\*1440] or its allies by hostile states, 52 as well as increase the likelihood that regional conflicts will draw in the United States and escalate to the use of nuclear weapons. 53

### Exports Bad – Warming

#### Exports cause methane leaks – makes warming irreversible

**Romm 11** (Joe, Senior Fellow at American Progress, editor of Climate Progress, assistant secretary of energy for energy efficiency and renewable energy in 1997, Ph.D. in physics from MIT, “Natural Gas Bombshell: Switching From Coal to Gas Increases Warming for Decades, Has Minimal Benefit Even in 2100,” 9-9-11 <http://thinkprogress.org/climate/2011/09/09/315845/natural-gas-switching-from-coal-to-gas-increases-warming-for-decades/>)

A key finding of the NCAR study is: In summary, our results show that the substitution of gas for coal as an energy source results **in increased** rather than decreased **global warming** for many decades — out to the mid 22nd century for the 10% leakage case. This is in accord with Hayhoe et al. (2002) and with the less well established claims of Howarth et al. (2011) who base their analysis on Global Warming Potentials rather than direct modeling of the climate…. The most important result, however, in accord with the above authors, is that, unless leakage rates for new methane can be kept below 2%, substituting gas for coal is not an effective means for reducing the magnitude of future climate change. What is the leakage rate for methane? Well, as I’ve written, we don’t know exactly because the gas companies won’t release all of their data. We do know that total life-cycle leakage and fugitive emissions from extraction, production, transport, and consumption is higher for shale gas than conventional gas. The controversial — but peer-reviewed — paper by Cornell’s Robert Howarth, which I wrote about here, seeks to quantify the impact of the leakage from the **best available data**. It **concluded**: Natural gas is composed largely of methane, and 3.6% to 7.9% of the methane from shale-gas production escapes to the atmosphere in venting and leaks over the life-time of a well. These methane emissions are at least 30% more than and perhaps more than twice as great as those from conventional gas. The higher emissions from shale gas occur at the time wells are hydraulically fractured — as methane escapes from flow-back return fluids — and during drill out following the fracturing. Methane is a **powerful greenhouse gas**, with a global warming potential that is far greater than that of carbon dioxide, particularly over the time horizon of the first few decades following emission.

### Exports Bad – Turns Renewables/Modeling

#### Exports cause international adoption of natural gas – that crowds out renewables

Simmons 12 (Bradford, Editor-in-Chief, “The Editor's Monthly Memo: The Staggering Implications of the U.S. Natural Gas Market,” International Affairs Review, 8-12, http://www.iar-gwu.org/node/429)

At home, a cautious, yet supportive approach to LNG exports would have ancillary benefits as well. With coal plants retiring every year and the declining economic viability of nuclear power, natural gas is well positioned to vastly expand its 30 percent share of electricity production. While this will translate into lower utility bills for U.S. consumers, it also raises the specter of overreliance. If natural gas exceeds a 50 percent share of power generation, any source disruptions or sudden price fluctuations would have a calamitous economic impact. Furthermore, such cheap gas could potentially crowd out other promising sources of energy, such as renewables. Though natural gas fired plants produce roughly half the carbon of a coal plant and have contributed to an overall reduction in emissions in the United States, a recent International Energy Administration report reveals that a shift to gas generated electricity will not prove sufficient to significantly alter current climate change scenarios.

### No Loan Guarantees – 2NC

#### No massive increase in loan guarantees – no nuclear renaissance

Timmer 2-5-13 (John, Arstechnica, “Steve Chu says goodbye to the Department of Energy,” 2-5-13,

<http://arstechnica.com/science/2013/02/steve-chu-says-goodbye-to-the-department-of-energy/>)

The DOE is a sprawling agency, responsible for everything from energy efficiency measures like house insulation to international nuclear proliferation (Chu's farewell notes that 10 percent of the US' electricity is now generated using uranium derived from Soviet warheads). The national labs it runs focus on basic and applied research, but the DOE also intervenes directly in the market, providing loan guarantees and funding to projects that are considered too risky to attract private financing. Not all of the latter programs have worked out especially well. Some of the stimulus money went to companies that failed as the financial crisis dragged on, though Chu's farewell letter takes pains to note that only one percent of the funded companies ended up entering bankruptcy. The loan guarantees were also intended to foster a resurgence in nuclear power, but the plunging cost of natural gas has put most plans for an expansion of nuclear energy on hold indefinitely.

#### No loan guarantees now – political barriers

Silverstein 13 (Ken, EnergyBiz,“Politics Mires Nuclear Loan Guarantee Process, Group Maintains,” 1-30-13,

<http://www.energybiz.com/article/13/01/politics-mires-nuclear-loan-guarantee-process-group-maintains>)

Three years after the U.S. Department of Energy approved an $8.3 billion loan guarantee to be used by Southern Co. and its partners to build two new nuclear reactors, the deal has yet to be finalized. A Georgia-based clean energy group says that the loan should shut down because it places taxpayers at extreme risk. Loan guarantees are not uncommon. In fact, they gained much of their notoriety as a result of the failure of solar company Solyndra, which lost about $528 million in taxpayer funds. But proponents of those loans say that the potential payback is far greater than the risks. In all cases, the purpose is to get seed money into the hands of energy developers, all to initiate first-of-their-kind projects that would ease the path for similar undertakings. “We have been critical of this program,” referring to the Energy Department’s issuance of all energy loans, says Doug Koplow, founder of Earth Track and co-author of a report for the Southern Alliance for Clean Energy and Friends of the Earth. “It lacks checks and balances and there are problems with oversight.”

### Exports Bad – Turns Price Volatility

#### Exports turn price volatility – cites economists

Braverman 12 (Mike, “Increasing LNG Exports Could Mean More Price Volatility,” Energy Watch. 5-22, http://energywatchmrb.blogspot.com/2012/05/increasing-lng-exports-could-mean-more.html)

US natural gas prices are not likely to see a lot of movement one way or another over the next few years, but large-scale liquefied natural gas ("LNG") exports could cause significant volatility in the future, according to one trading executive. "As prices rally, there are some real headwinds prices will have to fight through," said Brison Bickerton, managing director at Freepoint Commodities, a Connecticut-based physical commodity trading and marketing company. Those include the likelihood that NYMEX gas prices hitting $2.75/MMBtu would curtail Powder River Basin coal-to-gas switching, and gas reaching $3.25/MMBtu would stop Appalachian coal-to-gas switching, according to Bickerton, speaking at Bentek Energy's Benposium conference in Houston. He added if the NYMEX climbed to $3.30/MMBtu, 2 Bcf/d of shut-in production likely would reappear, and at $4, Haynesville Shale dry gas would become economic to drill again. The NYMEX June gas futures contract is currently trading at $2.71/MMBtu (May 22). Bickerton said if LNG exports hit 3 Bcf/d by 2017, that increase would be larger than anything recently seen from industrial demand growth. "The market is not good about thinking about large fundamental changes in demand," he added. Bickerton said there may be a historical lesson in the West Texas Intermediate-Brent crude oil spread, which has grown increasingly volatile in recent years. "When we take a domestic market and link or de-link it to an international commodity, you can get wild volatility," Bickerton said.

### 1NC No Econ War

#### Economic decline doesn’t cause war

Tir 10 [Jaroslav Tir - Ph.D. in Political Science, University of Illinois at Urbana-Champaign and is an Associate Professor in the Department of International Affairs at the University of Georgia, “Territorial Diversion: Diversionary Theory of War and Territorial Conflict”, The Journal of Politics, 2010, Volume 72: 413-425)]

Empirical support for the economic growth rate is much weaker. The finding that poor economic performance is associated with a higher likelihood of territorial conflict initiation is significant only in Models 3–4.14 The weak results are not altogether surprising given the findings from prior literature. In accordance with the insignificant relationships of Models 1–2 and 5–6, Ostrom and Job (1986), for example, note that the likelihood that a U.S. President will use force is uncertain, as the bad economy might create incentives both to divert the public’s attention with a foreign adventure and to focus on solving the economic problem, thus reducing the inclination to act abroad. Similarly, Fordham (1998a, 1998b), DeRouen (1995), and Gowa (1998) find no relation between a poor economy and U.S. use of force. Furthermore, Leeds and Davis (1997) conclude that the conflict-initiating behavior of 18 industrialized democracies is unrelated to economic conditions as do Pickering and Kisangani (2005) and Russett and Oneal (2001) in global studies. In contrast and more in line with my findings of a significant relationship (in Models 3–4), Hess and Orphanides (1995), for example, argue that economic recessions are linked with forceful action by an incumbent U.S. president. Furthermore, Fordham’s (2002) revision of Gowa’s (1998) analysis shows some effect of a bad economy and DeRouen and Peake (2002) report that U.S. use of force diverts the public’s attention from a poor economy. Among cross-national studies, Oneal and Russett (1997) report that slow growth increases the incidence of militarized disputes, as does Russett (1990)—but only for the United States; slow growth does not affect the behavior of other countries. Kisangani and Pickering (2007) report some significant associations, but they are sensitive to model specification, while Tir and Jasinski (2008) find a clearer link between economic underperformance and increased attacks on domestic ethnic minorities. While none of these works has focused on territorial diversions, my own inconsistent findings for economic growth fit well with the mixed results reported in the literature.15 Hypothesis 1 thus receives strong support via the unpopularity variable but only weak support via the economic growth variable. These results suggest that embattled leaders are much more likely to respond with territorial diversions to direct signs of their unpopularity (e.g., strikes, protests, riots) than to general background conditions such as economic malaise. Presumably, protesters can be distracted via territorial diversions while fixing the economy would take a more concerted and prolonged policy effort. Bad economic conditions seem to motivate only the most serious, fatal territorial confrontations. This implies that leaders may be reserving the most high-profile and risky diversions for the times when they are the most desperate, that is when their power is threatened both by signs of discontent with their rule and by more systemic problems plaguing the country (i.e., an underperforming economy).

### U – Prices Rising (UGA/NU)

#### New demand for NG makes price spike inevitable

Moors 1-24 (Dr. Kent, internationally recognized expert in oil and natural gas policy, risk assessment, and emerging market economic development, “Betting on the Coming Boom in Natural Gas Prices,” Money Morning, 2013, http://moneymorning.com/2013/01/24/betting-on-the-coming-boom-in-natural-gas-prices/)

There is also something else happening this morning. Natural gas prices are moving up. There is still some way to go before these prices reach the $4 plus level (still the perceived breakeven point for a number of producers). Still, after testing the low $3 range earlier in the month, the temperatures in the East are certainly bringing gas back into perspective. Natural gas usage remains sensitive to temperatures and weather conditions during the winter. Last year's unusually warm temperatures depressed gas prices more than usual. That was because the amount of gas extractions was much above anticipated levels. The combination of lower demand and higher supply translated into a downward price pressures. But we are in a different environment for gas production than we were a few years ago. Until 2005, the assumption was that the U.S. would need to import more liquefied natural gas (LNG) to compensate for accelerating declines in conventional domestic production. LNG overcomes the primary problem faced by natural gas users. Available supply is traditionally limited to where pipelines are running. LNG, on the other hand, cools gas to a liquid, allowing it to be transported by tankers almost anywhere by water, regasified at an import terminal, and then injected into the local pipeline network. By the middle of last decade, estimates of how much domestic gas need would have to be imported via LNG were as much as 15% and as soon as 2020. But the ability to exploit unconventional deposits (shale and tight gas, coal bed methane) has dramatically changed the equation. The Rise of U.S. Export Terminals Companies are retrofitting current import terminals to export LNG from the U.S., using shale gas excess volume as the feeder stock. Of course, that also provides an additional source of revenue for producers and processors... and added potential for investors. From a current level of zero, global estimates are putting the American component in LNG trade at 9-12% as early as 2020. This will be starting in earnest next year (2014) and there are huge markets waiting in both Asia and Europe. Europe is a straight shot from East Coast (Cove Point, MD) and Gulf States (Sabine Pass) locations. However, the Asian market remains the main LNG consumer. There, the 2014 completion of a project to deepen and widen the Panama Canal will allow LNG tankers to use the shortcut and open Asia to U.S. LNG sales. But LNG is not the only or even the major demand spike underway for gas. It's what's happening elsewhere that will be the real boon for investors. Power Plant Retirements Swell The U.S. will be retiring at least 90 GW of electricity generation by 2020, with an additional 20-30 GW likely because of new non-carbon emission limits. The **vast majority of this is coal-fired and is being replaced by gas as the fuel of choice**. For each 10 GW replaced, 1.2 billion cubic feet of gas will be required daily. If only half of the expected capacity replacement occurs, the additional requirements would eliminate three times the current gas surplus in the market. The LNG and power needs will buttress the demand side regardless of what Mother Nature chooses to do this winter. There are also increasing usages in other areas: As replacement for crude oil as raw material for petrochemical production, fertilizer and all manner of plastics and components; In broad industrial uses from normal energy requirements to the development of new chemical and related lines (this industrial use likely to be the lack to kick in after a recession); and, In the expansion of LNG and compressed natural gas (CNG) as a vehicle fuel (already underway in heavy trucks). All of this has prompted upward revisions in what had been still weak gas pricing estimates. Most analysts are putting the target at about a dollar above current prices (currently this morning about $3.53 per 1,000 cubic feet, or million BTUs, the NYMEX futures contract unit). My estimate puts natural gas prices at around $4.65. However, just about everybody is looking at new utilizations for gas increasing the price to about $6 by as early as 2015 or 2016.

#### Prices will spike – predictive and qualified ev

Schwartzel 1-9 (Erich, Pittsburgh Post-Gazette, “U.S. report predicts rising natural gas prices in 2013-14,” 2013, http://www.post-gazette.com/stories/business/news/us-report-predicts-rising-natural-gas-prices-in-2013-14-669602/#ixzz2JUuPAG00)

Marcellus Shale drillers who have had to cut costs and disassemble rigs because of recent record-low natural gas prices should expect a reprieve over the next two years, according to the latest projections from the U.S. Energy Information Administration. The average price of natural gas is expected to increase by almost a dollar in 2013, hitting $3.74 per million British thermal units. That's a significant jump from the $2.75 average seen last year, when accelerated drilling created a glut in supply that caused prices to drop and made drilling in many places unprofitable. Increases are expected to continue into 2014, when prices are predicted to hit $3.90. The EIA report released Tuesday is the first look into 2014 for the domestic and international energy scene, and it includes projections that could affect gas and coal activity in Pennsylvania and surrounding states. Higher gas prices would send reverberations across multiple sectors, helping coal become competitive with natural gas again as an electricity source and allowing drillers to broaden their focus beyond shale formations that are rich in oil. In addition, the federal energy agency projects increased domestic oil production will break new records over the next couple of years and eventually lead to lower prices at the gasoline station. The report is the latest set of tea leaves for an industry that's been in flux: Enthusiasm for drilling was tempered in recent years by economic realities that made it risky for every rig to turn a profit. The low prices made natural gas an easy sell to large, industrial customers who consume a lot of energy, but slowed lease activity as companies waited for prices to rebound. If natural gas prices continue an upward trend toward $4 per mcf, companies that had drilled wells but weren't bringing the gas to market could decide it is worth hooking those wells up to pipelines and selling the gas, said Adam Sieminski, the EIA administrator. Natural gas consumption, meanwhile, is expected to be relatively flat in 2013, though the EIA forecasts an increase in its use to heat homes and offices over the next two years. Consumption in 2012 was low due to an unnaturally warm winter. Over the next several years, the EIA's projections call for a steady rise in natural gas prices, said Mr. Sieminski, "continuing to go up to $5 or $6 in the longer term."

### Nuclear Power – 2NC

#### Nuclear power causes LNG exports – demand is rising especially from manufacturing, nuclear trades off and puts downward pressure on prices – makes exports viable – that’s Perry.

#### No turns – nuclear removes the floor under natural gas prices

ISA 12 (iStockAnalyst, “Weak Nuclear Power Output Should Support U.S. Natural Gas Prices,” 11-29, http://www.istockanalyst.com/finance/story/6165585/weak-nuclear-power-output-should-support-u-s-natural-gas-prices)

U.S. natural gas sold off sharply in recent days, driven mostly by warmer weather forecasts. Bloomberg: - Gas dropped as much as 3.8 percent as forecasters including MDA Weather Services predicted above-normal temperatures for most of the lower 48 states over the next 10 days. Unusually cold weather helped reduce a supply glut this month. The December contract expires today. "The weather is moderating so it's wearing a little bit on the market," said Tom Saal, senior vice president of energy trading at INTL Hencorp Futures LLC in Miami. "We've got an expiring contract today, that could be part of it." The declines however should be **limited due to reduced nuclear power generation**. A large number of nuclear plants have been down unexpectedly and it may take time to bring them online. US nuclear generation is materially below normal for this time of the year, which should provide a floor to natural gas prices.

#### Natural gas prices are rising BECAUSE nuclear power is declining – the plan reverses that

Prezioso 12 (Jeanine, “REFILE-Storm-closed US nuclear power plants may boost natgas use,” Reuters, 10-31, http://www.reuters.com/article/2012/10/31/sandy-natgas-demand-idUSL1E8LV3UF20121031)

As the U.S. Northeast begins its recovery from Hurricane Sandy and power is slowly restored, natural gas may be one market that benefits. The much-touted cleaner-burning fuel could be a replacement for nuclear power generation, which faces the highest level of outages since spring 2011. Massive flooding and electric grid outages from the storm caused three U.S. nuclear reactors totaling 2,800 megawatts (MWs) to shut. Those reactors and others that had already been offline could face longer inspections to check equipment following the storm. The United States last year initiated closer scrutiny of U.S. nuclear plants and their safety features following the earthquake, tsunami and subsequent flooding in Japan that caused a nuclear plant meltdown there. That lost nuclear power would likely be replaced incrementally with gas-fired electricity, **boosting demand for the fuel**. "If you reduce that demand, you could see a significant reliance on gas, especially in the east where coal generation isn't all that profitable anymore," said Eric Bickel, commodity analyst with Summit Energy in Louisville, Kentucky. Sandy hit during a month when many nuclear reactors were offline for scheduled maintenance anyway. But since March 2011, when the massive earthquake followed by a tsunami caused flooding and a meltdown at Tokyo Electric Power Co's Fukushima Daiichi nuclear plant, the world's nuclear power regulators have taken more precautions. "That's been an influential factor since that happened. You do have more stringent safety precautions now and you want to make sure everything is sound before you embark on putting them back online," said Bickel. SHORT TERM DEMAND LOSS On the flip side, Sandy has created a short-term vexing problem for an already oversupplied natural gas market: less immediate demand for the fuel and a short-term drop in prices until winter. The lack of power demand translates to a decrease in natural gas usage of about 1 billion cubic feet per day (bcfd), analysts said, which could generate about 5,000 MWs of electricity. At its peak, Sandy's fierce wind created tumultuous storm surges along the east coast that flooded power stations, caused transformers to explode and knocked out electricity to more than 8 million homes and businesses. The loss of that electricity usage may lessen demand for natural gas-generated power. Electric heat is not common in the Northeast, but gas heat for homes is. More than half of U.S. homes use gas as a heating fuel in winter, which is fast approaching, another factor that will increase demand.

## Solvency

### Export Alt Cause 2NC

#### Hard to get an export license, it’s a bureaucratic mess and there is political opposition to exporting nuclear power – that’s NEI

#### Even if our tech is superior, export restrictions make that meaningless

NEI 12 (Nuclear Energy Institute, “Improved Policies for Commercial Nuclear Trade Will Create American Jobs,” June, http://www.nei.org/resourcesandstats/documentlibrary/newplants/policybrief/improved-policies-for-commercial-nuclear-trade-will-create-american-jobs)

While U.S. firms offer some of the most innovative and safest nuclear energy technologies, they are hampered by cumbersome trade regulations, lack of coordination among the federal agencies involved, an inefficient export licensing process, limited options for financing nuclear exports and the absence of an international liability regime. These companies face intense competition from suppliers in nations with less restrictive policies and substantial government subsidies for their nuclear industries. To facilitate a greater U.S. role in the global commercial nuclear market, government support must be integrated into a seamless mechanism that includes coordination of nuclear trade policy, creation of bilateral agreements, export control reform and enhanced export financing. It also is vital that the United States pursue the international adoption of effective civil nuclear liability regimes.

### 2NC No Solvency

#### Thorium sucks – major technical hurdles and will never be viable

Rees, 11 – the Ecologist's acting Green Living Editor (Eifion, 6/23. ““Don't believe the spin on thorium being a greener nuclear option.” http://www.guardian.co.uk/environment/2011/jun/23/thorium-nuclear-uranium)

There is a significant sticking point to the promotion of thorium as the 'great green hope' of clean energy production: it remains unproven on a commercial scale. While it has been around since the 1950s (and an experimental 10MW LFTR did run for five years during the 1960s at Oak Ridge National Laboratory in the US, though using uranium and plutonium as fuel) it is still a next generation nuclear technology – theoretical. China did announce this year that it intended to develop a thorium MSR, but nuclear radiologist Peter Karamoskos, of the International Campaign to Abolish Nuclear Weapons (ICAN), says the world shouldn't hold its breath. 'Without exception, [thorium reactors] have never been commercially viable, nor do any of the intended new designs even remotely seem to be viable. Like all nuclear power production they rely on extensive taxpayer subsidies; the only difference is that with thorium and other breeder reactors these are of an order of magnitude greater, which is why no government has ever continued their funding.' China's development will persist until it experiences the ongoing major technical hurdles the rest of the nuclear club have discovered, he says. Others see thorium as a smokescreen to perpetuate the status quo: the world's only operating thorium reactor – India's Kakrapar-1 – is actually a converted PWR, for example. 'This could be seen to excuse the continued use of PWRs until thorium is [widely] available,' points out Peter Rowberry of No Money for Nuclear (NM4N) and Communities Against Nuclear Expansion (CANE). In his reading, thorium is merely a way of deflecting attention and criticism from the dangers of the uranium fuel cycle and excusing the pumping of more money into the industry. And yet the nuclear industry itself is also sceptical, with none of the big players backing what should be – in PR terms and in a post-Fukushima world – its radioactive holy grail: safe reactors producing more energy for less and cheaper fuel. In fact, a 2010 National Nuclear Laboratory (NNL) report (PDF)concluded the thorium fuel cycle 'does not currently have a role to play in the UK context [and] is likely to have only a limited role internationally for some years ahead' – in short, it concluded, the claims for thorium were 'overstated'. Proponents counter that the NNL paper fails to address the question of MSR technology, evidence of its bias towards an industry wedded to PWRs. Reliant on diverse uranium/plutonium revenue streams – fuel packages and fuel reprocessing, for example – the nuclear energy giants will never give thorium a fair hearing, they say. But even were its commercial viability established, given 2010's soaring greenhouse gas levels, thorium is one magic bullet that is years off target. Those who support renewables say they will have come so far in cost and efficiency terms by the time the technology is perfected and upscaled that thorium reactors will already be uneconomic. Indeed, if renewables had a fraction of nuclear's current subsidies they could already be light years ahead. All other issues aside, thorium is still nuclear energy, say environmentalists, its reactors disgorging the same toxic byproducts and fissile waste with the same millennial half-lives. Oliver Tickell, author of Kyoto2, says the fission materials produced from thorium are of a different spectrum to those from uranium-235, but 'include many dangerous-to-health alpha and beta emitters'. Tickell says thorium reactors would not reduce the volume of waste from uranium reactors. 'It will create a whole new volume of radioactive waste from previously radio-inert thorium, on top of the waste from uranium reactors. Looked at in these terms, it's a way of multiplying the volume of radioactive waste humanity can create several times over.' Putative waste benefits – such as the impressive claims made by former Nasa scientist Kirk Sorensen, one of thorium's staunchest advocates – have the potential to be outweighed by a proliferating number of MSRs. There are already 442 traditional reactors already in operation globally, according to the International Atomic Energy Agency. The by-products of thousands of smaller, ostensibly less wasteful reactors would soon add up. Anti-nuclear campaigner Peter Karamoskos goes further, dismissing a 'dishonest fantasy' perpetuated by the pro-nuclear lobby. Thorium cannot in itself power a reactor; unlike natural uranium, it does not contain enough fissile material to initiate a nuclear chain reaction. As a result it must first be bombarded with neutrons to produce the highly radioactive isotope uranium-233 – 'so these are really U-233 reactors,' says Karamoskos. This isotope is more hazardous than the U-235 used in conventional reactors, he adds, because it produces U-232 as a side effect (half life: 160,000 years), on top of familiar fission by-products such as technetium-99 (half life: up to 300,000 years) and iodine-129 (half life: 15.7 million years).Add in actinides such as protactinium-231 (half life: 33,000 years) and it soon becomes apparent that thorium's superficial cleanliness will still depend on digging some pretty deep holes to bury the highly radioactive waste. With billions of pounds already spent on nuclear research, reactor construction and decommissioning costs – dwarfing commitments to renewables – and proposed reform of the UK electricity markets apparently hiding subsidies to the nuclear industry, the thorium dream is considered by many to be a dangerous diversion. Energy consultant and former Friends of the Earth anti-nuclear campaigner Neil Crumpton says the government would be better deferring all decisions about its new nuclear building plans and fuel reprocessing until the early 2020s: 'By that time much more will be known about Generation IV technologies including LFTRs and their waste-consuming capability.' In the meantime, says Jean McSorley, senior consultant for Greenpeace's nuclear campaign, the pressing issue is to reduce energy demand and implement a major renewables programme in the UK and internationally – after all, even conventional nuclear reactors will not deliver what the world needs in terms of safe, affordable electricity, let alone a whole raft of new ones. 'Even if thorium technology does progress to the point where it might be commercially viable, it will face the same problems as conventional nuclear: it is not renewable or sustainable and cannot effectively connect to smart grids. The technology is not tried and tested, and none of the main players is interested. Thorium reactors are no more than a distraction.'

## Prolif/Terror

### Thorium – Not Solve Prolif

Thorium still requires fuel – it just goes through a separation process and stores that prolif material – the problem is

1. Storage sucks
2. Fuel can easily be processed by rogue states like Iran and NK

That’s Boyd evidence

#### Thorium’s not prolif resistant – required uranium is still bomb-friendly

NNL, 12 – National Nuclear Laboratory (UK), Comparison of thorium and uranium fuel cycles, NNL (11) 11593 Issue 5, A report prepared for and on behalf of Department of Energy and Climate Change, http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/nuclear/6300-comparison-fuel-cycles.pdf

The absence of plutonium is in the thorium fuel cycle is claimed to reduce the risk of nuclear weapons proliferation, though Reference [1] questions whether is this is completely valid, given that there were a number of U-233 nuclear tests (the “Teapot tests”) in the US in the 1950s. U-233 is in many respects very well suited for weapons use, because it has a low critical mass, a low spontaneous neutron source and low heat output. It has been stated [eg Wikipedia entry on U-233] that because U-233 has a higher spontaneous neutron source than Pu-239, then this makes it more of a technical challenge. However, this is erroneous, because even in weapons grade plutonium the main neutron source is from Pu-240. A further consideration is that the U-233 produced in thorium fuel is isotopically very pure, with only trace quantities of U-232 and U-234 produced. Although the U-232 presents problems with radiological protection during fuel fabrication, the fissile quality does not degrade with irradiation. Therefore, if it is accepted that U-233 is weapons useable, this remains the case at all burnups and there is no degradation in weapons attractiveness with burnup, unlike the U-Pu cycle.¶ The presence of trace amounts of U-232 is beneficial in that it provides a significant gamma dose field that would complicate weapons fabrication and this has been claimed to make U-233 proliferation resistant. However, there are mitigating strategies can be conceived and the U-232 dose rate cannot be regarded as a completely effective barrier to proliferation. As such, U-233 should be considered weapons usable in the same way as HEU and plutonium. This is also the position taken by the IAEA, which under the Convention on the Physical Protection of Nuclear Materials [16] categorises U-233 in the same way as plutonium. Under the IAEA classification, 2 kg or more of U-233 or plutonium are designated as Category I Nuclear Material and as such are subject to appropriate controls. By way of comparison, the mass of U-235 for Category I material is 5 kg. Attempts to lower the fissile content of uranium by adding U-238 are considered to offer only weak protection, as the U-233 could be separated relatively easily in a centrifuge cascade in the same way that U-235 is separated from U-238 in the standard uranium fuel cycle.¶ The overall conclusion is that while there may be some justification for the thorium fuel cycle posing a reduced proliferation risk, the justification is not very strong and, as noted in Section 3.5, this is not a major factor for utilities. Regardless of the details, those safeguards and security measures in place for the U-Pu cycle will have to remain in place for the thorium fuel cycle and there is no overall benefit.

### No Prolif 2NC

#### No prolif – it’s fear mongering, and actually hard to get nukes. If it’s easy to get nukes – that takes out their internal link because nuke power can’t overcome every access to loose material

#### Prolif will be limited and slow

Yusuf 9 (Moeed, Fellow and Ph.D. Candidate in the Frederick S. Pardee Center for the Study of the Longer-Range

Future – Boston University, “Predicting Proliferation: The History of the Future of Nuclear Weapons”, Brookings Policy Paper 11, January, http://www.brookings.edu/~/media/Files/rc/papers/2009/01\_nuclear\_proliferation\_ yusuf/01\_nuclear\_proliferation\_yusuf.pdf)

It is a paradox that few aspects of international security have been as closely scrutinized, but as incorrectly forecast, as the future nuclear landscape. Since the advent of nuclear weapons in 1945, there have been dozens, if not hundreds of projections by government and independent analysts trying to predict horizontal and vertical proliferation across the world. Various studies examined which countries would acquire nuclear weapons, when this would happen, how many weapons the two superpowers as well as other countries would assemble, and the impact these developments might have on world peace. The results have oscillated between gross underestimations and terrifying overestimations. Following the September 11, 2001 attacks, the fear that nuclear weapons might be acquired by so-called “rogues states” or terrorist groups brought added urgency – and increased difficulty – to the task of accurately assessing the future of nuclear weapons. A survey of past public and private projections provides a timely reminder of the flaws in both the methodologies and theories they employed. Many of these errors were subsequently corrected, but not before, they made lasting impressions on U.S. nuclear (and non-nuclear) policies. This was evident from the time the ‘Atoms for Peace’ program was first promulgated in 1953 to the 1970 establishment of the Nuclear Non- Proliferation Treaty (NPT), and more recently during the post-Cold War disarmament efforts and debates surrounding U.S. stance towards emerging nuclear threats. This study offers a brief survey of attempts to predict the future of nuclear weapons since the beginning of the Cold War.1 The aim of this analysis is not merely to review the record, but to provide an overall sense of how the nuclear future was perceived over the past six decades, and where and why errors were made in prediction, so that contemporary and future predictive efforts have the benefit of a clearer historical record. The survey is based on U.S. intelligence estimates as well as the voluminous scholarly work of American and foreign experts on the subject. Six broad lessons can be gleaned from this history. First, it reveals consistent misjudgments regarding the extent of nuclear proliferation. Overall, projections were far more pessimistic than actual developments; those emanating from independent experts more so than intelligence estimates. In the early years of the Cold War, the overly pessimistic projections stemmed, in part, from an incorrect emphasis on technology as the driving factor in horizontal proliferation, rather than intent, a misjudgment, which came to light with the advent of a Chinese bomb in 1964. The parallel shift from developed-world proliferation to developing-world proliferation was accompanied by greater alarm regarding the impact of proliferation. It was felt that developing countries were more dangerous and irresponsible nuclear states than developed countries. Second, while all the countries that did eventually develop nuclear weapons were on the lists of suspect states, the estimations misjudged when these countries would go nuclear. The Soviet Union went nuclear much earlier than had been initially predicted, intelligence estimates completely missed China’s nuclear progress, and India initially tested much later than U.S. intelligence projections had anticipated and subsequently declared nuclear weapon status in 1998 when virtually no one expected it to do so. Third, the pace of proliferation has been consistently slower than has been anticipated by most experts due to a combination of overwhelming alarmism, the intent of threshold states, and many incentives to abstain from weapons development. In the post-Cold War period, the number of suspected threshold states has gradually decreased and the geographical focus has shifted solely to North-East Asia, South Asia, and the Middle East. There is also much greater concern that a nuclear chain reaction will break out than was the case during the Cold War.

## Warming

### 2NC Warming Irreversible

#### Extend warming’s irreversible – scientists and long term predictions – 4.3 degrees is inevitable, that assumes zero emissions – that’s ANI.

Their Prothero ev

Our atmospheric carbon dioxide levels are already close to 400 ppm today. The atmosphere is headed to 600 ppm within a few decades, even if we stopped releasing greenhouse gases immediately

#### Strong consensus that it’s too late

Edwards 12 (Rich, PhD in Communication – Baylor University, “A Preliminary Analysis of the IPFF Resolution for 2012-2013,” http://www.bickelbrewer.com/pdf/IPPF\_Topic\_Primer\_2012\_13.pdf)

This position argues that it is already too late for mitigation efforts to meaningfully change the course of climate change. Matthew Baca, writing in the Summer 2010 issue of the New York University Journal of International Law and Politics, offers the following rationale for prioritizing adaptation: “Climate change is already occurring, and some of its effects will be felt before mitigation can have any impact. Even if emissions are stabilized relatively soon (an unlikely prospect), sea level rise and anthropogenic warming will likely continue for many years to come. While mitigation is critical to the welfare of later generations, . . . adaptation is critical to our generation” (Baca, 2010, pp. 1343-1344). Jacqueline Peel and Lee Godden, both professors of law at Melbourne Law School, conclude that prevention should now be regarded as impossible: “Although future warming and its likely effects may be reduced if an effective agreement on deep emissions cuts emerges from the current post-Kyoto negotiation process, it is becoming increasingly clear that climate change impacts cannot be entirely prevented. In this context, climate change mitigation, in the sense of ‘implementing policies to reduce [greenhouse gas] emissions and enhance sinks,’ will not be sufficient to avert serious environmental damage. Instead there is a need for adaptation ‘initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects’” (Peel & Godden, 2009, p. 37). Eric Klinenberg, professor of public policy at New York University, believes that the fight to stop global warming is already lost; attention must now turn to how we should deal with it: “The question is no longer what’s happening with the climate but what we can do about it. The macro challenge is inescapable: Dramatically reducing our carbon footprint and quickly reversing the environmental damage that we’ve already inflicted. Whether and how we do that is the problem of our time. But as the fossil-fuel industry and the politicians it bankrolls do everything in their power to slow that transition, the rest of us have no choice but to adapt. If the mercury is going to keep rising, we need to start protecting ourselves from its consequences” (Klinenberg, 2012). Kevin Anderson, a scientist at the Tyndal Centre for Climate Change Research at the School of Mechanical Aerospace and Civil Engineering, and Alice Bows of the University of Manchester’s Sustainable Consumption Institute, conclude that the battle to stop global warming is already lost: “The analysis within this paper offers a stark and unremitting assessment of the climate change challenge facing the global community. There is now little to no chance of maintaining the rise in global mean surface temperature at below 2°C, despite repeated high-level statements to the contrary” (Anderson & Bows,

### 2NC Environment – Resilient

#### No brink to environmental collapse

Lomborg 12 -- director of the Copenhagen Consensus Center and author of Smart Solutions to Climate Change (Bjorn, July/August, "Environmental Alarmism, Then and Now," http://www.foreignaffairs.com/articles/137681/bjorn-lomborg/environmental-alarmism-then-and-now?page=show)

As for its pollution predictions, The Limits to Growth was simultaneously scary and vague. Pollution's increase was supposed to trigger a global collapse if the decrease of food or resources didn't do so first, but how exactly pollution was defined was left unclear. Individual pollutants, such as DDT, lead, mercury, and pesticides, were mentioned, but how those could kill any significant number of people was unspecified, making it a bit tricky to test the prediction. Air pollution might be considered a good proxy for overall pollution, since it was the biggest environmental killer in the twentieth century and since the Environmental Protection Agency estimates that its regulation produces 86-96 percent of all the social benefits from environmental regulation more generally. In the developing world, outdoor air pollution is indeed rising and killing more people, currently perhaps over 650,000 per year. Indoor air pollution (from using dirty fuels for cooking and heating) kills even more, almost two million per year (although that number has been decreasing slightly).

#### -- Environment is resilient

Easterbrook 95 (Gregg, Distinguished Fellow – Fullbright Foundation, A Moment on Earth, p. 25)

In the aftermath of events such as Love Canal or the Exxon Valdez oil spill, every reference to the environment is prefaced with the adjective "fragile." "Fragile environment" has become a welded phrase of the modern lexicon, like "aging hippie" or "fugitive financier." But the notion of a fragile environment is profoundly wrong. Individual animals, plants, and people are distressingly fragile. **The environment** that contains them **is** close to **indestructible**. The living environment of Earth has survived ice ages; bombardments of cosmic radiation more deadly than atomic fallout; solar radiation more powerful than the worst-case projection for ozone depletion; thousand-year periods of intense volcanism releasing global air pollution far worse than that made by any factory; reversals of the planet's magnetic poles; the rearrangement of continents; transformation of plains into mountain ranges and of seas into plains; fluctuations of ocean currents and the jet stream; 300-foot vacillations in sea levels; shortening and lengthening of the seasons caused by shifts in the planetary axis; collisions of asteroids and comets bearing far more force than man's nuclear arsenals; and the years without summer that followed these impacts. Yet hearts beat on, and petals unfold still. Were the environment fragile it would have expired many eons before the advent of the industrial affronts of the dreaming ape. **Human assaults** on the environment, though mischievous, **are** **pinpricks** compared to forces of the magnitude nature is **accustomed to resisting**.

### 2NC Environment – Strong

#### -- Environment strong and improving – their authors lie

Dutton 1 (Dr. Dennis, Professor of Philosophy – University of Canterbury (New Zealand), “Greener Than You Think”, The Washington Post, 10-21, http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=& contentId=A12789-2001Oct18)

That the human race faces environmental problems is unquestionable. That environmental experts have regularly tried to scare us out of our wits with doomsday chants is also beyond dispute. In the 1960s overpopulation was going to cause massive worldwide famine around 1980. A decade later we were being told the world would be out of oil by the 1990s. This was an especially chilly prospect, since, as Newsweek reported in 1975, we were in a climatic cooling trend that was going to reduce agricultural outputs for the rest of the century, leading possibly to a new Ice Age. Bjorn Lomborg, a young statistics professor and political scientist at the University of Aarhus in Denmark, knows all about the enduring appeal -- for journalists, politicians and the public -- of environmental doomsday tales, having swallowed more than a few himself. In 1997, Lomborg -- a self-described left-winger and former Greenpeace member -- came across an article in Wired magazine about Julian Simon, a University of Maryland economist. Simon claimed that the "litany" of the Green movement -- its fears about overpopulation, animal species dying by the hour, deforestation -- was **hysterical nonsense**, and that the quality of life on the planet was **radically** **improving**. Lomborg was shocked by this, and he returned to Denmark to set about doing the research that would refute Simon. He and his team of academicians discovered something sobering and cheering: In every one of his claims, Simon was correct. Moreover, Lomborg found on close analysis that the factual foundation on which the environmental doomsayers stood was **deeply flawed**: exaggeration, prevarications, white **lies** and even convenient typographical errors had been absorbed unchallenged into the folklore of environmental disaster scenarios.

## Politics

### Conditionality Good – 2NC

[Interpretation: we get 2 counterplan and the squo – they get the plan and a perm – its reciprocal and fair]

#### – proving the counterplan bad doesn’t prove the plan good. Status quo should always be an option. Logic outweighs – it key to make debate meaningful.

#### 2. Critical thinking – it tests the Aff from multiple angles, forcing the best arguments

#### 3. Neg flex – we need every option. Outweighs Aff ground – they have structural advantages like 1st and last speech and infinite prep.

#### 4. Real world: policy-makers always use conditional arguments

#### 5. No time or strategy skew – its inevitable: some debaters are faster, we’d read 3 T violations instead, and few good arguments are needed to win a debate

#### 6. Hard debate is good – it makes it more challenging and fun. As long as it isn’t impossible, we should win.

#### 7. Not a voting issue – just stick us with the counterplan

### A2: Perf Con

#### Begs the question of conditionality – also not contradictory

#### You should evaluate the K as a gateway issue, we didn’t cross apply answers to K to prove other arguments so there’s no abuse

#### 1. Negation theory- as long as we prove that the aff plan is a bad idea, we meet our burden as a neg. How we do so is completely irrelevant.

#### 2. 2NR selection checks- we still have to kick arguments, answer and defend a winning issue in all 5 minutes, giving the 2AR 5 minutes to answer one argument, mooting their abuse claims.

#### 3. Real world- policymakers attack plans from every possible angle. Real world debate is key to education and critical thinking.

#### 6. Education- tests from both sides

#### 7. Reciprocity- we should be able to test their framework, and they may test ours when we engage them on their selected paradigm.

#### At worst grant out the contradictions and reject the CP and K positions as illegitimate, but don’t reject the team – we’re not going for either

### Impact

#### No impact defense means its try or die for the negative – Impact outweighs – cyber terrorism escalates and draws in Russia because of retaliatory systems – it goes nuclear – that’s Fritz

#### Bostrom evidence Austin read in the 2NC proves it’s the highest existential risk – cyber terror undermines deterrence because it triggers Dead hand systems – goes global

Nick **Bostrom** (PhD Philosophy – Oxford U) **2002** Existential Risks, http://www.nickbostrom.com/existential/risks.html)

A much greater existential risk emerged with the build-up of nuclear arsenals in the US and the USSR. An all-out nuclear war was a possibility with both a substantial probability and with consequences that *might* have been persistent enough to qualify as global and terminal. There was a real worry among those best acquainted with the information available at the time that a nuclear Armageddon would occur and that it might annihilate our species or permanently destroy human civilization.[4]  Russia and the US retain large nuclear arsenals that could be used in a future confrontation, either accidentally or deliberately. There is also a risk that other states may one day build up large nuclear arsenals. Note however that a smaller nuclear exchange, between India and Pakistan for instance, is not an existential risk, since it would not destroy or thwart humankind’s potential permanently. Such a war might however be a local terminal risk for the cities most likely to be targeted. Unfortunately, we shall see that nuclear Armageddon and comet or asteroid strikes are mere preludes to the existential risks that we will encounter in the 21st century.

#### Visa restrictions block joint efforts on nuclear power --- that’s key to global adoption – turns solvency

Lyons and Lyman 9 (Blythe J., Senior Consultant – Energy Resources International, and John R., Director of the Energy and Environment Program – Atlantic Council, “United States-China Cooperation on Nuclear Power: An Opportunity for Fostering Sustainable Energy Security”, Atlantic Council Report, 3-6, http://www.acus.org/files/publication\_pdfs/65/AtlanticCouncil-USChinaNuclearPower.pdf)

10. One of the roadblocks to the development of cooperative opportunities is the U.S. visa issuance system. The Atlantic Council was encouraged to ask the U.S. Department of State to improve its processing of visa applications to significantly shorten the time needed for Chinese nationals involved in nuclear power to obtain a visa for travel to the U.S. Consider, for example, that France provides a dedicated consulate. It is important to recognize that U.S. authorities must take into consideration the security of nuclear facilities but that a better balance can be reached. This is a problem that can be solved. 11. There is an opportunity for international cooperation on the development of a nuclear waste repository based on the experience the U.S. has already gained through 10 years of operation at the Waste Isolation Pilot Project (WIPP) facility and through its Yucca Mountain site characterization and licensing activities. 12. China’s 10 MWe High Temperature Gas Reactor (HTGR) scheduled to be in operation by November 2013 in Shandong Province, could serve as an international experimental facility. The currently operating test pebble bed reactor has provided an opportunity for international collaboration. 13. Cooperation on the development of advanced fuel cycle technologies, already underway in U.S.-China working groups, will provide significant opportunities to share rather than duplicate knowledge and funding. Generation IV (Gen IV) international collaboration on R&D is necessary and beneficial for all participants to share costs, facilities and experience. Specific fuel cycle R&D opportunities proposed by the State Nuclear Power Technology corporation (SNPTC) include the following: Advanced fuel, such as mixed oxide (MOX) fuel, and metal fuel; Transmutation technology, such as fast reactor and accelerator driven systems; Reprocessing technologies, such as MOX spent fuel reprocessing, dry processing, on-site recycle; and, Repository design technology. 14. The Generation IV International Forum (GIF) will provide a good framework to deal with intellectual property issues. If prototype or demonstration plants were to be built under the aegis of the GIF, it could also provide experience in dealing with legal and regulatory issues. Issues such as design ownership, who would build the facility, cost sharing would have to be addressed. As countries have vested interests in certain types of technologies, resolution of such issues may be difficult. 15. The Global Nuclear Energy Partnership (GNEP): The U.S., which led the way in establishing the international collaborative effort to develop proliferation-resistant technologies and institutions, should take advantage of its leadership position to nurture and expand GNEP’s international activities. As in GIF, there are advantages to sharing technical expertise and pooling financial resources. GNEP is already in place and the Obama Administration can take advantage of the years of effort it took to set up the framework for international collaboration while adapting GNEP goals to current realities and domestic nuclear development policies. Consistency in U.S. nuclear energy policies, especially in relation to international efforts, is crucial to foster global acceptance of a safe, secure and sustainable nuclear power. 6.0 Conclusion The time for debate about the winners and losers in the supply of energy is over. Nuclear energy is needed more than ever as a non-carbon emitting source of electric supply and it can play a role in providing a secure, sustainable, affordable energy supply. The bottom line is that both the U.S. and China need a diversified energy production platform and technology portfolio, including a vibrant nuclear industry. Given the necessity of using all the forms of energy at our disposal while transitioning to a de-carbonized portfolio relying increasingly on renewables, integrated solutions are needed. Recognizing that this is not an either-or world, cooperation on nuclear energy can lead to expanded cooperation on other energy programs such as clean coal technology and renewable energy R&D. As the scientists and engineers begin to work together on nuclear programs, both will find ways to start other joint efforts. Together the U.S. and China have the ability to set the standards for world’s upcoming climate negotiations. With 2 billion people in the world suffering from a lack of energy and facing increasing shortages of adequate water supplies, developed countries are in a position to spread the benefits of electricity around the globe. To do this, every available source of electric supply must be deployed, and the U.S. and China, who will have the world’s two largest nuclear power programs in approximately 20 years, and who may also be the world’s top two economies, will be able to lead the way. This Dialogue provided a very good information base and an excellent platform to help the U.S. and China to work together to bring the benefits of nuclear energy to our nations and to the others in this world suffering from a lack of the basics for life. The U.S. and China are the world’s largest energy consumers—and the world’s two largest emitters of greenhouse gasses. Both countries must increase their use of nuclear power to help meet energy demands in a carbon-constrained environment. Relevant government agencies and key stakeholders must educate their publics about the parameters involved in producing a diverse energy supply in order to understand the worth of sacrifices that will be needed. Cooperation between the U.S. and China will be mutually beneficial. It is to the U.S.’s benefit that China designs and operates a safe nuclear power program. China is a significant market for the U.S. nuclear industry and provides an opportunity to maintain its manufacturing capabilities until its first new U.S. orders get underway. U.S. industry presence in China also increases relationships and communications thus improving U.S. security. The unprecedented transfer of nuclear technology to the Chinese will, in turn, help them develop clean sources of electricity sorely needed to address the fast growing needs of its economy and public. As Chinese capabilities grow, the nuclear supply chain is reinforced, supporting further opportunities for U.S. companies to expand reactor sales abroad. American and Chinese companies together can take advantage of their mutual competitive edges in technology and geography to expand into new markets. Cooperation and leadership are key and complimentary components in the U.S.’s and China’s efforts to ensure nuclear power’s contribution to meeting energy demand. Cooperation on technology development, human resources, security and safety will form the basis for their leadership on the world stage. Their combined actions will matter greatly in providing a quality environment with adequate energy supplies. The world is watching! The Chinese participants signaled their desire to improve both government-to-government cooperation and commercial sector ties. It appears that the U.S. government is equally interested in working with China to tackle the overarching challenges of developing a safe and secure commercial nuclear fuel cycle. By supporting and participating in this Dialogue, U.S. industry and government participants have demonstrated their commitment to dealing with the challenges to realize the burgeoning nuclear trade between the two countries.

#### Shortages cause Chinese lash-out --- impact is global nuclear war

Srinivasan 2 (Rajeev, Management Consultant and Indian Journalist, “China: From Mismanagement to Collapse”, Rediff on Net, 7-29, http://www.rediff.com/news/2002/jul/29rajeev.htm)

One might say this is an internal problem for the Chinese, and outsiders should not worry. This is not so. Especially for India, now that Tibet has been thoroughly dissolved and Han Chinese troops are on the Indian border for the first time in history, there is a growing military threat. Ditto for all of Southeast Asia, wary about Chinese adventurism and ultra-nationalism as already expressed in land-grabs in the Spratlys and Mischief Reef. From near-self-sufficiency in 1993-96, China will need to import 60 per cent of its oil needs by 2020: this explains the urgency of grabbing possibly mineral-rich economic zones around these islands. And, of course, this explains their overtures to Kazakhstan and other Central Asian republics. What better way to distract people's attention from economic folly and an ideologically bankrupt polity than by going to war? I predicted in The Danger from China in 1998 that China would attack Taiwan, Russia (in Siberia) and Japan (an electro magnetic pulse in the atmosphere) in the next few years. They are building ballistic-missile-armed nuclear submarines, which they will have by the end of the decade. China has 20 intercontinental ballistic missiles that can hit Los Angeles and San Francisco, so the Americans had better worry too.

**Nuclear war causes warming**

**Turco et. Al** **08**

Toon: chair of the Dept of Atmospheric and Oceanic Sciences and a member of the Laboratory for Atmospheric and Space Physics at the University of Colorado @ Boulder. Robock is a Proff of atmospheric science at Rutgers University in New Brunswick, New Jersey. Turco is a professor of atmospheric science at the University of California, Los Angeles, (Owen B. Toon, Alan Robock, and Richard P. Turco, “Environmental consequences of nuclear war,” 2008 American Institute of Physics, December 2008 Physics Today 37-42, http://www.plu.edu/~haykm/332\_Course\_Material/current\_events/NuclearWar.pdf)

Complementary to temperature change is radiative forcing, the change in energy flux. Figure 3b shows how nuclear soot changes the radiative forcing at Earth’s surface and com- pares its effect to those of two well-known phenomena: warming associated with greenhouse gases and the 1991 Mount Pinatubo volcanic eruption, the largest in the 20th century. Since the Industrial Revolution, greenhouse gases have increased the energy flux by 2.5 W/m. The transient forcing from the Pinatubo eruption peaked at about −4 W/m 2 (the minus sign means the flux decreased). One implication of the figure is that even a regional war between India and Pakistan can force the climate to a far greater degree than the greenhouse gases that many fear will alter the climate in the foreseeable future. Of course, the durations of the forcings are different: The radiative forcing by nuclear-weapons-gen- erated soot might persist for a decade, but that from green- house gases is expected to last for a century or more, allow- ing time for the climate system to respond to the forcing. Accordingly, while the Ice Age–like temperatures in figure 3a could lead to an expansion of sea ice and terrestrial snow- pack, they probably would not be persistent enough to cause the buildup of global ice sheets. Agriculture responds to length of growing season, tem- perature during the growing season, light levels, precipita- tion, and other factors. The 1980s saw systematic studies of the agricultural changes expected from a nuclear war, but no such studies have been conducted using modern climate models. Figure 4 presents our calculations of the decrease in length of the growing season—the time between freezing temperatures—for the second summer after the release of soot in a nuclear attack.

#### Turns econ

Ozimek 2-7 (Adam, Contributor, “Does An Aging Population Hurt The Economy?” Forbes, 2013, http://www.forbes.com/sites/modeledbehavior/2013/02/07/does-an-aging-population-hurt-the-economy/)

The economic benefit of immigration is in part about how big of a problem our aging population is. Immigrants are in general younger, and our best way to fight against a growing ratio of retirees to workers. But this raises the question of how big of a problem is this ratio and our aging population in general. While many are concerned about this, Dean Baker argues it is not a problem. He agrees that the ratio has increased and will continue to increase in the future as the population ages, but he argues that we haven’t seen any problems yet so we won’t see any later: We have already seen a sharp decline in the ratio of workers to retirees, yet even people who follow the economy and economic policy closely, like Klein, were apparently not even aware of this fact. Since this decline is never cited as factor causing our current economic problems, why would we think the comparatively mild decline in this ratio projected for future decades will be a large burden? Dean is wrong that the ratio of workers to retirees is not cited as a factor in the current economic problems. The most prominent example comes from newly appointed Council of Economic Advisors member James Stock and his co-author Mark Watson. In their paper “Disentangling the Channels of the 2007-2009 Recession” they specifically cite demographic trends as a cause of our slow recovery. The variable Stock and Watson ultimately cite is the decline in labor force participation, and they argue it is driven by the aging of the workforce and the overall distribution of workers by age. Dean may argue that this technically isn’t the dependency ratio, but that would be quibbling: changes in these two measures capture the same basic economic phenomenon of the aging population and a lower percentage of the population working. Not only has the aging population contributed to the slow recovery, Stock and Watson argue there is good reason to believe it will mean slow recoveries in the future too: The main conclusion from this demographic work is that, barring a new increase in female labor force participation or a significant increase in the growth rate of the population, these demographic factors point towards a further decline in trend growth of employment and hours in the coming decades. Applying this demographic view to recessions and recoveries suggests that the future recessions with historically typical cyclical behavior will have steeper declines and slower recoveries in output and employment. Furthermore, this is just the impact of the aging population on business cycles, there is also the very serious problem of how it will affect our finances. Dean knows that by increasing the workforce immigration improves Social Security’s finances. In 2006 he wrote that if future immigration was at 2001-2002 levels instead of at around 900,000 per year it would reduce the Social Security trust fund’s long-term shortfall by 12%. A shortfall means we will reduce benefits or pay for it in higher taxes, and either are going to result in lower welfare for someone.

### A2: Thumpers – General 2NC

#### No thumpers – other issues are priced-in and Obama has leverage

Page 2-21 (Susan, “Obama supported on guns, debt; Divided and dissatisfied with both sides, public is less aligned with Republicans,” Lexis)

President Obama starts his second term with a clear upper hand over GOP leaders on issues from guns to immigration that are likely to dominate the year, a USA TODAY/Pew Research Center Poll finds. On the legislation rated most urgent -- cutting the budget deficit -- even a majority of Republican voters endorse Obama's approach of seeking tax hikes as well as spending cuts. The survey underscores the quandary for the GOP as it debates the party's message in the wake of disappointing losses last November for the White House and in the Senate. Now just 22% of Americans, nearly a record low, consider themselves Republicans. And those automatic spending cuts, known as the sequester, that are poised to take effect next week? If no deal is reached to avert them, half of Americans say congressional Republicans will be more to blame. Less than a third would blame Obama first. "On many of the issues, President Obama has staked out positions that seem to be closer to the public's thinking than the positions Republicans have staked out," says Michael Dimock, director of the Pew Research Center for the People & the Press. The poll is the first in a new partnership between Pew and USA TODAY. "The challenge for him is in building the public's sense of immediacy on some of these issues, particularly on climate change and guns." Republicans have the opposite challenge. "Their focus on the deficit is in tune with the public's priorities right now," he says. "Yet their positions are not quite in step with the kind of compromises that the public tells us they want to see."

#### Prefer issue specific U

#### Enough PC for immigration – Obama’s going for the throat

Page 2-21 (Susan, “Obama supported on guns, debt; Divided and dissatisfied with both sides, public is less aligned with Republicans,” Lexis)

Even so, those surveyed say by narrow margins that Obama has a better approach than congressional Republicans for dealing with the deficit and guns. By double digits, they favor his plans on immigration and climate change, including limits on emissions from power plants. The president's overall job approval rating is 51%, a bit higher than it typically has been for the past three years. The approval rating for Republican congressional leaders is a dismal 25%. Democratic congressional leaders stand in-between, at 37%. The telephone poll of 1,504 adults was taken by land line and cellphone Feb. 13-18. It has a margin of error of +/-3 percentage points. Since winning re-election, Obama has outlined bolder policies and taken a less compromising stance toward the GOP lawmakers he blames for frustrating much of his legislative agenda over the past two years. In his inaugural address and State of the Union speech, and at events across the country, he has focused more on generating public support for his proposals than on forging ties with Congress to negotiate them.

### A2: Thumpers – Gun Control 2NC

#### Obama sidesteps gun control – he’s pushing the public, not Congress – cites insiders

Wash Post 1-25 (Washington Post, “Obama to bypass Congress on gun control,” 2013, <http://www.japantimes.co.jp/news/2013/01/25/world/obama-to-bypass-congress-on-guns/#.USUOkh1nG8A>)

The White House has decided to circumvent Capitol Hill as it concentrates its gun-control efforts on speeches and other public appearances by President Barack Obama and Vice President Joe Biden outside of Washington, according to officials with knowledge of the plans. With Obama’s gun agenda dependent on centrist Democratic senators nervous about their re-election prospects, the administration has calculated that the president is better off helping build a groundswell of popular support within their states rather than negotiating directly with the lawmakers, officials said. The emerging strategy represents a more combative approach than the one taken during Obama’s first term, when the White House frequently worked directly with congressional leaders in attempts to strike a compromise. This time, Obama has laid out the measures he wants Congress to pass and is now setting out to expend political capital selling them. The approach also underscores the limits of Obama’s influence on Capitol Hill, where he must rely on the votes of Democrats from states that backed Republican Mitt Romney and where many voters are hostile to his progressive second-term agenda. “Write your congressman,” Biden said during an online forum Thursday in a refrain likely to be sounded repeatedly in coming weeks. “For or against, write your congressman.” The White House is entrusting key legislative work to senior Senate Democrats while Obama and Biden begin to crisscross the country showcasing the president’s gun proposals, which include background checks for all gun buyers and an assault weapons ban. Obama is mobilizing millions of volunteers and supporters through the newly-branded Organizing for Action, his former campaign committee that will raise money and run grassroots campaigns to pressure wavering lawmakers. Part of the goal is to demonstrate support for gun-control measures in states such as West Virginia, North Dakota or Louisiana, where Democratic Sens. Joe Manchin III, Heidi Heitkamp and Mary Landrieu face strong pressure to side with progun groups. Plans are also under way for Obama and Biden to appear with law enforcement officials, clergy members, hunters and military leaders who back their proposals, according to a White House aide. Gun-control supporters said Thursday that they need moderate gun owners to be part of their coalition. “We need responsible hunters and sportsmen to step up to this,” Illinois Democratic Sen. Richard J. Durbin said at a news conference with California Democratic Sen. Dianne Feinstein, while formally unveiling a bill to ban assault weapons. With 10 military-style weapons displayed at their side, Durbin added, “They shake their heads when they hear the gun lobby speak for them, saying things which they don’t believe, which is you need a weapon like this to go out and hunt or to go to target practice. We need them to step up. We need their voices as part of this conversation.” The White House’s gun-centered campaign was to begin in earnest Friday, with Biden traveling to Richmond, Virginia with Virginia Democratic Sen. Tim Kaine and several Cabinet secretaries to hold a roundtable session focused in part on the 2007 mass shooting at Virginia Tech. Obama, meanwhile, will hit the road soon and is expected to make an emotional appeal in his State of the Union address, scheduled for Feb. 12. The White House is considering inviting families of the children who died in last month’s shooting in Newtown, Connecticut, to join first lady Michelle Obama in her viewing box, according to a Democratic source close to the White House. The Senate is starting to consider a series of bills on Obama’s agenda, including universal background checks for all gun buyers, tougher laws on gun trafficking and bans on assault weapons and high-capacity ammunition magazines. The bill that Feinstein and Durbin unveiled will prohibit the sale, transfer, manufacturing or importation of more than 150 specific firearms as well as magazines capable of carrying more than 10 rounds. Both the White House and Senate Democrats plan to enlist religious leaders to leverage public support for gun-control bills. “Everyone in this city seems to live in terror of the gun lobby,” the Very Rev. Gary Hall, dean of the Washington National Cathedral, said at the Feinstein event Thursday. “But I believe that the gun lobby is no match for the cross lobby.” The National Rifle Association dismissed Feinstein’s proposal outright: “The American people know gun bans do not work and we are confident Congress will reject Sen. Feinstein’s wrong-headed approach.” The White House is keeping its distance as the Senate begins considering the measure, having calculated that an overt presence on Capitol Hill — for now, at least — could jeopardize the agenda, according to a Democrat who is working with the White House and requested anonymity because he was not authorized to speak publicly. “They’re not in there on the details and doing whip counts and being all Lyndon Johnson about it,” the Democrat said.

### A2: Thumpers – Sequestration 2NC

#### Obama’s changed his strategy – reaching out on immigration, NOT sequester

Carney 2-20 (Jay, White House Press Secretary, “White House News Briefing,” Lexis)

QUESTION: The president reached out to key Republicans who were working on immigration reform yesterday. Does this represent a shifting of strategy? And can we expect him to reach out to Leader McConnell and Speaker Boehner today, or in the coming days? CARNEY: Well, I don't have any calls or meetings to announce or preview for you today. But I think it represents the regular engagement on the top priorities that the president has and the country has with members of Congress. And that will continue. As I think we learned yesterday, the -- yes, the president reached out to some of the Republican leaders, the "gang of eight" on immigration reform. That is in keeping with the regular outreach that has been done at a staff level by the White House. QUESTION: (inaudible) engagement with the president? CARNEY: Well, I think... (CROSSTALK) QUESTION: **They say they haven't heard from him in months on the sequester**.

### PC Key – 2NC

#### PC key – bridges perception differences

South Chicagoan 2-21 (Will Obama be trashed for cooperation?, Lexis)

So will the Republican leadership now demonize the president for trying to go around their own ideologically-inspired agenda to get something done that they might not approve of? Of course, the president has his own agenda - which largely consists of ensuring that something, anything gets passed into law this year. If he were to fail again and we get stuck with the status quo, it would reinforce much of the apathy that many Latinos have felt toward Obama. The idea that he speaks in our favor, but is too willing to push our concerns aside when the political maneuvering gets too rough. WHICH MEANS THE opponents of immigration reform could score a victory if nothing happens. Even though that would be a harm to the rest of us - since the current immigration policy is a bureaucratic mess that complicates the situation and gives our entire society a massive headache we'd be better off without! For the record, Obama made his calls to John McCain, R-Ariz., and Lindsay Graham, R-S.C. - who have devoted significant amounts of time and attention to this issue in the past; along with Marco Rubio, R-Fla., who seems to have become THE self-appointed voice of Latinos on this particular issue. Even though some of us might wonder if a Cuban-American person has such a differing perspective on the immigration issue that perhaps they're not best suited to appreciate the difficulties imposed by the current federal policies. Although I'm not going to bash on Rubio that much - even if he was the most-outspoken critic of the effort that Obama's aides are putting together as a back-up immigration reform plan in the event that Congress can't get its act together. LIKE I WROTE earlier, Obama is determined to have something, anything, be passed into law during 2013. But the fact is that we have a split in the way that immigration reform is being perceived. To the point where I wonder if this differing perception IS going to be the factor that stalls the issue. For while the Obama backup plan is one that creates an option where the people now living without a valid visa in this country can eventually gain citizenship - but one in which it can take about eight years just to get the 'green' card and several more before one gets to take the oath of naturalization where they renounce their ties to any foreign potentate. While the ideologues who realize that outright opposition is no longer a viable option are more concerned with focusing on programs that would allow people to work without any option for naturalization, or more talk along the lines of building that stupid wall along the U.S./Mexico border. YOU KNOW. THE one that will be easily scaled with the mythical '51 foot' ladder? This is going to be an ugly political brawl. I have always accepted that. But it is also a brawl that I believe our nation is just going to have to go through. The sooner we do, the quicker we will reach the long-term solution.

#### PC k2 immigration – public pressure and fractures Republicans

Page 2-21 (Susan, “Obama supported on guns, debt; Divided and dissatisfied with both sides, public is less aligned with Republicans,” Lexis)

For Obama, having higher ratings than congressional Republicans doesn't guarantee passage of any legislation, given the polarization in a divided Congress. But it does put him in a stronger position to bring public pressure on lawmakers. And it complicates Republican efforts to unite a fractured party behind a message that will appeal to voters.

### General – No Link Turns\*\*\*

#### Obama can’t win on energy – only risk of a link

Eisler 12 Matthew is a Researcher @ the Chemical Heritage Foundation. “Science, Silver Buckshot, and ‘All of The Above’” April 2, http://scienceprogress.org/2012/04/science-silver-buckshot-and-%E2%80%9Call-of-the-above%E2%80%9D/

Conservatives take President Obama’s rhetoric at face value. Progressives see the president as disingenuous. No doubt White House planners regard delaying the trans-border section of the Keystone XL pipeline and approving the Gulf of Mexico portion as a stroke of savvy realpolitik, but one has to wonder whether Democratic-leaning voters really are as gullible as this scheme implies. And as for the president’s claims that gasoline prices are determined by forces beyond the government’s control (speculation and unrest in the Middle East), it is probably not beyond the capacity of even the mildly educated to understand that the administration has shown little appetite to reregulate Wall Street and has done its part to inflate the fear premium through confrontational policies in the Persian Gulf. Committed both to alternative energy (but not in a rational, comprehensive way) and cheap fossil fuels (but not in ways benefiting American motorists in an election year), President **Obama has accrued** no political capital **from his energy policy from either the left or the right** by the end of his first term.¶ The president long ago lost the legislative capacity for bold action in practically every field, including energy, but because the GOP’s slate of presidential candidates is so extraordinarily weak in 2012, he may not need it to get re-elected. At least, that is the conventional wisdom in Democratic circles. Should President Obama win a second term, Congress is likely to be **even more hostile** than in his first term, as in the Clinton years. And as in the Clinton years, that will probably mean four more years of inaction and increased resort to cant.

### Nuclear Power – 1NC

#### Plan drains capital and causes an immediate fight

Szondy 12 (David, freelance writer -- Gizmag, 2-16, “Feature: Small modular nuclear reactors - the future of energy?” http://www.gizmag.com/small-modular-nuclear-reactors/20860/)

The problem is that nuclear energy is the proverbial political hot potato - even in early days when the new energy source exploded onto the world scene. The tremendous amount of energy locked in the atom held the promise of a future like something out of a technological Arabian Nights. It would be a world where electricity was too cheap to meter, deserts would bloom, ships would circle the Earth on a lump of fuel the size of a baseball, planes would fly for months without landing, the sick would be healed and even cars would be atom powered. But though nuclear power did bring about incredible changes in our world, in its primary role, generating electricity for homes and industry, it ended up as less of a miracle and more of a very complicated way of boiling water.¶ Not only complicated, but expensive and potentially dangerous. Though hundreds of reactors were built all over the world and some countries, such as France, generate most of their electricity from it, nuclear power has faced continuing questions over cost, safety, waste disposal and proliferation. One hundred and four nuclear plants provide the United States with 20 percent of the nation's power, but a building permit hadn't been issued since 1978 with no new reactors coming on line since 1996 and after the uproar from the environmental movement after nuclear accidents at Three Mile Island, Chernobyl and Fukushima, it seemed unlikely that any more would ever be approved - until now. This fierce domestic opposition to nuclear power has caused many governments to take an almost schizophrenic stance regarding the atom.