# 1NC

### Off

#### **Financial incentives are grants or loans—government purchases are distinct.**

Czinkota et al 9—Associate Professor at the McDonough School of Business at Georgetown University, Michael, Fundamentals of International Business, p. 69 – google books

Incentives offered by policymakers to facilitate foreign investments are mainly of three types: fiscal, financial, and nonfinancial. Fiscal incentives are specific tax measures designed to attract foreign investors. They typically consist of special depreciation allowances, tax credits or rebates, special deductions for capital expenditures, tax holidays, and the reduction of tax burdens. Financial incentives offer special funding for the investor by providing, for example, land or buildings, loans, and loan guarantees. Nonfinancial incentives include guaranteed government purchases; special protection from competition through tariffs, import quotas, and local content requirements, and investments in infrastructure facilities.

#### Vote neg

#### Limits—government procurement allows tons of new affs dealing with the military, government research facilities and almost any government service, this explodes the topic making deep debate and predictable ground impossible.

#### Ground—most topic arguments assume a private-sector based increase in energy production like investment tradeoffs, environmental DAs or condition the company CPs, government procurement dodges all these.

### Off

#### The United States Department of Defense should utilize incremental funding to purchase small modular reactors for use on military bases within the United States.

#### Full-funding process is normal means – Congress is notified about the plan.

O’Rourke and Daggett ‘7

(Ronald [Specialist in National Defense], Stephen [Specialist in National Defense], “Defense Procurement: Full Funding Policy —¶ Background, Issues, and Options for Congress”, CRS Report to Congress, June 15, <http://www.fas.org/sgp/crs/natsec/RL31404.pdf>, DZ)

The full funding policy is a federal budgeting rule imposed on the Department¶ of Defense (DOD) by Congress in the 1950s that requires the entire procurement cost¶ of a weapon or piece of military equipment to be funded in the year in which the item¶ is procured. Although technical in nature, the policy relates to Congress’s power of¶ the purse and its responsibility for conducting oversight of DOD programs. Support¶ for the policy has been periodically reaffirmed over the years by Congress, the¶ Government Accountability Office, and DOD.

#### Counterplan process independently reduces disruption, investment bias, and boosts flexibility in production economies of scale – only the counterplan solves the aff.

O’Rourke and Daggett ‘7

(Ronald [Specialist in National Defense], Stephen [Specialist in National Defense], “Defense Procurement: Full Funding Policy —¶ Background, Issues, and Options for Congress”, CRS Report to Congress, June 15, <http://www.fas.org/sgp/crs/natsec/RL31404.pdf>, DZ)

A principal effect of the full funding policy is to prevent the use of incremental¶ funding, under which the cost of a weapon is divided into two or more annual¶ portions. Incremental funding fell out of favor because opponents believed it could¶ make the total procurement costs of weapons and equipment more difficult for¶ Congress to understand and track, create a potential for DOD to start procurement of¶ an item without necessarily stating its total cost to Congress, permit one Congress to¶ “tie the hands” of future Congresses, and increase weapon procurement costs by¶ exposing weapons under construction to uneconomic start-up and stop costs.¶ Supporters of incremental funding, however, could argue that its use in DOD¶ procurement programs could produce certain advantages in terms of reducing¶ disruption to other programs, avoiding investment bias against very expensive items,¶ improving near-term production economies of scale, and preserving flexibility for¶ future Congresses to halt funding for weapons under construction that have become¶ unnecessary or inappropriate.

#### Aff displaces items in the DoD budget – the counterplan doesn’t.

O’Rourke and Daggett ‘7

(Ronald [Specialist in National Defense], Stephen [Specialist in National Defense], “Defense Procurement: Full Funding Policy —¶ Background, Issues, and Options for Congress”, CRS Report to Congress, June 15, <http://www.fas.org/sgp/crs/natsec/RL31404.pdf>, DZ)

Although incremental funding fell out of favor due to the above considerations,¶ supporters of incremental funding could argue that its use in DOD (or federal)¶ procurement can be advantageous because it can do one or more of the following:¶ ! permit very expensive items, such as large Navy ships, to be¶ procured in a given year without displacing other programs from that¶ year’s budget, which can increase the costs of the displaced¶ programs due to uneconomic program-disruption start-up and start¶ costs;¶ ! avoid a potential bias against the procurement of very expensive¶ items that might result from use of full funding due to the item’s¶ large up-front procurement cost (which appears in the budget)¶ overshadowing the item’s long-term benefits (which do not appear¶ in the budget) or its lower life cycle operation and support (O&S)¶ costs compared to alternatives with lower up-front procurement¶ costs;¶ ! permit construction to start on a larger number of items in a given¶ year within that year’s amount of funding, so as to achieve better¶ production economies of that item than would have been possible¶ under full funding;¶ ! recognize that certain DOD procurement programs, particularly¶ those incorporating significant amounts of advanced technology,¶ bear some resemblance to research and development activities, even¶ though they are intended to produce usable end items;¶ ! reduce the amount of unobligated balances associated with DOD¶ procurement programs;¶ ! implicitly recognize potential limits on DOD’s ability to accurately¶ predict the total procurement cost of items, such as ships, that take¶ several years to build; and¶ ! preserve flexibility for future Congresses to stop “throwing good¶ money after bad” by halting funding for the procurement of an item¶ under construction that has become unnecessary or inappropriate due¶ to unanticipated shifts in U.S. strategy or the international security¶ environment.

### Off

It’ll pass but PC is key

Dann 3/27 (Carrie, Political Reporter, NBC News, “Obama optimistic on immigration legislation”, <http://firstread.nbcnews.com/_news/2013/03/27/17490075-obama-optimistic-on-immigration-legislation?lite>, CMR)

As a bipartisan group of senators chips away at the remaining obstacles to an immigration deal, President Barack Obama says he is optimistic that – if lawmakers release a draft bill early next month – he will be able to sign comprehensive immigration reform into law before autumn.¶ “If we have a bill introduced at the beginning of next month -- as these senators indicate it will be -- then I'm confident that we can get it done certainly before the end of the summer,” Obama said in an interview with Telemundo on Wednesday.¶ The president repeated that he could still introduce a White House-drafted version of the legislation if the “Gang of Eight” Senate group is not able to put forward a bill. But he said he’s confident that lawmakers will be able to work out the final snags in the negotiations in time to unveil their proposal when they return from a two-week Easter recess next month.¶ “I'm optimistic,” he said. “ I've always said that if I see a breakdown in the process, that I've got my own legislation. I'm prepared to step in. But I don't think that's going to be necessary. I think there's a commitment -- among this group of Democratic and Republican senators to get this done.”¶ The negotiations have been held up in part by continuing disputes between business and labor groups about the conditions of a guest-worker program, particularly the wages and treatment ensured to temporary workers compared to those for American workers pursuing similar jobs.¶ But the president said he doesn’t believe that the dispute could scuttle the whole reform framework.¶ “There are still some areas about … the future flow of guest workers,” he said. “Labor and businesses may not always agree exactly on how to do this. But this is a resolvable issue.” While he expressed optimism that a final bill will contain a path to citizenship for those currently in the country illegally, Obama would not offer specifics on how long the process of obtaining citizenship should take.¶ And he declined to outline how the security of the nation’s border should be assessed, saying only that there should be no border security “trigger” that must be met before undocumented persons are eligible to begin the process of seeking legal status.¶ “We don't want to make this earned pathway to citizenship a situation in which it's put off further and further into the future,” he said. “There needs to be a certain path for how people can get legal in this country, even as we also work on these strong border security issues.”¶ While the White House has deferred to the Senate group on the legislative language, the president has used the bully pulpit in recent days to urge lawmakers to action and remind the public of the general framework for reform that he supports – including a path to citizenship.¶ In addition to the Telemundo interview, he also sat down with Spanish-language channel Univision on Wednesday. Earlier this week, the president urged Congress to show “political courage” on the issue during remarks at a naturalization ceremony at the White House.¶ Senate negotiators say they are close to a final deal.¶ Earlier Wednesday, Republican Sens. John McCain and Jeff Flake of Arizona held a joint press conference with Democrats Chuck Schumer of New York and Michael Bennet of Colorado. The lawmakers traveled to Arizona’s southern border to survey the state of security there, a tour that offered a very real illustration of the illegal immigration issue when they spotted a woman scaling a border fence. (She was later apprehended by border security officers, McCain said.)¶ At a press conference, Schumer told reporters there that negotiators are “90 percent of the way there” on a compromise bill, adding that the trip offered a glimpse into what further resources are needed to ensure full border security.¶ “We learned about the great progress that’s been made,” Schumer said. “It’s a lot better than it was 10 years ago, but we also learned that we have more progress to go. And in our immigration bill, we hope that we will make that progress, along with many other goals.”

#### Plan drains capital

Bencosme 11/28 (Francisco Bencosme, Joseph S. Nye, Jr. Researcher, former wake debater and a generally cool guy, “The State of Small Modular Nuclear Reactors”, 2012, <http://www.cnas.org/blogs/naturalsecurity/2012/11/state-small-modular-nuclear-reactors.html>, CMR)

Some have argued that the Department of Defense (DOD) would be a unique testing ground for an SMR demonstration. While this might be true, there does not appear to be enough political will for using the DOD as a site for energy experimentation. A DOD SMR program might also entail high political costs due to the larger defense cut negotiations that are taking place in Congress as part of the fiscal cliff.

**PC is key and finite**

**Nakamura 2/20** (David, “In interview, Obama says he has a year to get stuff done”, 2013, <http://www.washingtonpost.com/blogs/post-politics/wp/2013/02/20/in-interview-obama-says-he-has-a-year-to-get-stuff-done/>, CMR)

President **Obama** said Wednesday he’s **eager to move quickly to enact his second-term agenda, acknowledging** that **he has a severely limited time frame** before the political world begins thinking about the next election cycle in 2014 and beyond.¶ Obama told a San Francisco television station that **he wants to “get as much stuff done as quickly as possible.**”¶ “Once we get through this year, then people start looking at the mid-terms and after that start thinking about the presidential election,” Obama said during a brief interview with KGO, an ABC affiliate. “The American people don’t want us thinking about elections, they want us to do some work. America is poised to grow in 2013 and add a lot of jobs as long as Washington doesn’t get in the way.”¶ **Obama’s remarks were an acknowledgement that** **a second-term president’s ability to use his political capital faces rapidly diminishing returns, highlighting the high stakes of his bids to strike deals with Congress on** issues from tax reform, budget cuts, **immigration** **reform** and gun control.

#### Immigration reform key to STEM leadership and biotech innovation

Scullion ’13 (Christine, “Manufacturers Take the Lead In STEM Education”, January 8, <http://www.shopfloor.org/2013/01/manufacturers-take-the-lead-in-stem-education/27254>, CMR)

The U.S. the leading producer of cutting-edge products such as those on display at the Consumer Electronics Show. Whether it’s in IT, biotech, aerospace, medical devices or heavy machinery, US companies will be the ones to constantly and consistently create new and better things. This future promises to be bright, but only if we have the workforce capable of pushing that leading-edge. And right now, that doesn’t look like a very good bet. The lack of a skilled workforce is a constant threat to manufacturing growth. In fact in a recent survey 82% of manufacturers reported a moderate-to-serious shortage in skilled production labor. Worker shortages abound not only among machinists and welders but also in occupations requiring expertise in the fields of science, technology, engineering and math (STEM), where the unemployment rate today lies well below 4%.¶ The US needs to refocus our workforce training resources and reform our immigration system to continue to grow and innovate. Immigration reform is a serious issue for Manufacturers not only in the High-tech arena but across manufacturing sectors. Without a skilled workforce – from the PhDs to production labor, the nation’s economy will suffer and jobs will be moved overseas. Access to the right individual with the right skills at the right time will ensure that the US remains a global innovation leader.

#### The impact is bioterror

Chyba 4 - Co-Director of the Center for International Security and Cooperation (CISAC), Stanford Institute for International Studies, and an Associate Professor at Stanford University

[Christopher & Alex Greninger, “Biotechnology and Bioterrorism: An Unprecedented World” Survival, 46:2, Summer 2004]

In the absence of a comprehensive and effective system of global review of potential high-consequence research, we are instead trapped in a kind of offence–defence arms race. Even as legitimate biomedical researchers develop defences against biological pathogens, bad actors could in turn engineer countermeasures in a kind of directed version of the way natural pathogens evolve resistance to anti-microbial drugs. The mousepox case provides a harbinger of what is to come: just as the United States was stockpiling 300m doses of smallpox vaccine as a defence against a terrorist smallpox attack, experimental modification of the mousepox virus showed how the vaccine could possibly be circumvented. The United States is now funding research on antiviral drugs and other ways of combating smallpox that might be effective against the engineered organism. Yet there are indications that smallpox can be made resistant to one of the few known antiviral drugs. **The future has the appearance of an** eternal arms race of measures and countermeasures. The ‘arms race’ metaphor should be used with caution; it too is in danger of calling up misleading analogies to the nuclear arms race of the Cold War. First, the biological arms race is an offence–defence race, rather than a competition between offensive means. Under the BWC, only defensive research is legitimate. But more fundamentally, the driver of de facto offensive capabilities in this arms race is not primarily a particular adversary, but rather the ongoing global advance of microbiological and biomedical research. Defensive measures **are in** a race with nefarious applications of basic research, much of which is itself undertaken for protection against natural disease. In a sense, we are in an arms race with ourselves. It is hard to see how this arms race is stable – an offence granted comparable resources would seem to be necessarily favoured. As with ballistic missile defence, particular defensive measures may be defeated by offensive countermeasures. **In the biological case, implementing defensive measures will** require not only research but drug development and distribution plans. Offensive measures need not exercise this care, although fortunately they will likely face comparative resource constraints (especially if not associated with a state programme), and may find that some approaches (for example, to confer antibiotic resistance) have the simultaneous effect of inadvertently reducing a pathogen’s virulence. The defence must always guard against committing the fallacy of the last move, whereas the offence may embrace the view of the Irish Republican Army after it failed to assassinate the British cabinet in the 1984 Brighton bombing: ‘Today we were unlucky, but remember we have only to be lucky once – you will have to be lucky always’.40 At the very least, the defence will have to be vigilant and collectively smarter than the offence. **The only way for the defence to win** convincingly in the biological arms race **would** seem to **be to succeed in discovering and implementing** certain de facto last-move defences, at least on an organism-by-organism basis. Perhaps there are defences, or a web of defences, that will prove too difficult for any plausible non-state actor to engineer around. Whether **such defences** exist is unclear at this time, but their exploration **should be a long-term research goal of US biodefence** efforts. Progress might also have an important impact on international public health. One of the ‘Grand Challenges’ identified by the Bill and Melinda Gates Foundation in its $200m initiative to improve global health calls for the discovery of drugs that minimise the emergence of drug resistance – a kind of ‘last move’ defence against the evolutionary countermeasures of natural microbes.41 **Should** a collection of such **defensive moves prove possible**, **bioterrorism might ultimately succumb to** a kind of globalised dissuasion by denial:42 non-state groups would calculate that they could not hope to achieve dramatic results through biological programmes and would choose to direct their efforts elsewhere.

#### Extinction

Steinbruner 97 John D. Steinbruner, Brookings senior fellow and chair in international security, vice chair of the committee on international security and arms control of the National Academy of Sciences, Winter 1997, Foreign Policy, “Biological weapons: a plague upon all houses,” n109 p85(12), infotrac

Although human pathogens are often lumped with nuclear explosives and lethal chemicals as potential weapons of mass destruction, there is an obvious, fundamentally important difference: Pathogens are alive, weapons are not. Nuclear and chemical weapons do not reproduce themselves and do not independently engage in adaptive behavior; pathogens do both of these things. That deceptively simple observation has immense implications. The use of a manufactured weapon is a singular event. Most of the damage occurs immediately. The aftereffects, whatever they may be, decay rapidly over time and distance in a reasonably predictable manner. Even before a nuclear warhead is detonated, for instance, it is possible to estimate the extent of the subsequent damage and the likely level of radioactive fallout. Such predictability is an essential component for tactical military planning. The use of a pathogen, by contrast, is an extended process whose scope and timing cannot be precisely controlled. For most potential biological agents, the predominant drawback is that they would not act swiftly or decisively enough to be an effective weapon. But for a few pathogens - ones most likely to have a decisive effect and therefore the ones most likely to be contemplated for deliberately hostile use - the risk runs in the other direction. A lethal pathogen that could efficiently spread from one victim to another would be capable of initiating an intensifying cascade of disease that might ultimately threaten the entire world population. The 1918 influenza epidemic demonstrated the potential for a global contagion of this sort but not necessarily its outer limit.

### Off

#### RENEWABLES POISED FOR EXPLOSIVE GROWTH AND WILL OUTCOMPETE ALL COMPETITORS

**Mitchell 2/13** (Travis, associate editor for all FierceEnergy and FierceFinance publications and is based in the Washington, DC office. Before joining FierceMarkets, Travis worked as an editorial/communication intern at the Rural Community Assistance Partnership, a national non-profit focusing on clean water and has also worked on the multimedia desk for the Washington bureau of Agence France-Presse. Travis holds a B.A. in journalism from American University in Washington, DC, where he also spent four years as a student DJ for WVAU. He is fluent in French, a music lover and enjoys eating his way around the District, Facts show renewable energy success, http://www.fierceenergy.com/story/facts-show-renewable-energy-success/2013-02-19, MDA)

**There are** plenty of **misconceptions about the costs and benefits of renewable energy.** But while opinions vary as to the effectiveness of generation sources such as wind and solar, facts are indisputable. And the **facts show that renewable power is increasingly economical and poised for explosive growth in the United States.**¶ **While the U.S. actually saw substantial decline in the renewable energy investment dollars from 2011-2012 (from $300 billion down to $270 billion), that's** a **misleading** figure. **The drop can be attributed**, in part, **to falling costs of renewable energy materials, and increased energy use.** In fact, **2012 was a record year for U.S. installed renewable capacity** at 17.4 GW.¶ **"Solar had a very strong year, but really wind was the big winner overall in terms of capacity**," said Ethan Zindler, head of policy analysis at Bloomberg New Energy Finance. ¶ Zindler was part of a gathering of energy analysts at a recent American Council on Renewable Energy (ACORE) policy forum, which highlighted industry advancements and acted as a brainstorming session for the future of renewable energy policy. While not optimistic about how renewable energy would fare over the next couple years, Zindler noted that these technologies -- **wind**, in particular -- **are approaching cost parity with coal generation.**¶ Renewables enjoy falling costs¶ **A Bloomberg New Energy Finance analysis shows a** 20-**30 percent drop in the levelized costs (without subsidies) of photovoltaic tech**nology over the past 12 months, and the price of wind generation continues to be down.¶ "The short answer is that, in a number of cases, **these technologies really are now very much getting close to being competitive with their fossil rivals**," Zindler said.¶ Making costs more reasonable is a product of increased investment and research, and much of it was spurred from the American Recovery and Reinvestment Act of 2009, a policy move that pumped substantial cash into renewable energy. **The ultimate goal is to see the cost of solar, wind and geothermal systems continue to fall. This is becoming increasingly necessary as natural gas prices remain at historic lows.**¶ **Renewables will go toe-to-toe with natural gas in the coming years, as state Renewable Portfolio Standards and U.S. E**nvironmental **P**rotection **A**gency regulations **make it tougher to build new coal generation and more cumbersome to keep old units operating.**¶ Importance of continued policy support¶ Just as policy can encourage development, its absence can stunt it. Renewables spending slowed recently over fear of revoked renewable production tax credits and subsidies.¶ In time, **the renewables industry will certainly thrive on its own.** But for now, policy is critical to supporting renewable energy growth.¶ Not only will policy offer much needed financial support, but it is also part of the country's heritage, according to Nancy Pfund, managing partner at venture capital firm DBL Investors.¶ "Even from the early days of land grants and coal railroad development, **the government has played a critical role in supporting the emergence of new technologies in the energy field and transitioning us from one to the other**," Pfund said, speaking at the ACORE forum.¶ Few of those presenting at the forum projected wide-sweeping energy legislation to hit any time soon. But absent a comprehensive energy reform bill, there are likely to be incremental changes to help erect a stronger energy roadmap, including focusing on continuing support for funding that could further drive down the cost of renewables.¶ Perhaps Congress should also heed research that demonstrates a growing number Americans want and support renewable energy.¶ "All the polls, all the studies show that American's love solar energy and they want the government to pursue policies that support it," Pfund said. She predicted that over the next few years, the renewable energy discussion will shift from policy professionals to the broader consumer marketplace.¶ This consumer support also creates an opportunity for utilities to work with lawmakers in driving renewable energy policy and growth, she said.¶ All in all, **the facts seem to be piling up on the side of renewable energy.** Policy reform has been shown to work, and has driven costs down. Likewise, a lack of firm policy has slowed advancement, again a testament to it's potential effectiveness. **The next few years will be critical and challenging for renewble energy, but as long as installed capacity continues to grow, and the facts demonstrate improvement, it will be tough to make the argument against these generation sources and the policies that support them.**

**Plan revitalizes the nuclear industry**

**Andres and Loudermilk 10** Richard B, Senior Fellow at the Institute for National Strategic Studies at National Defense University and a Professor of National Security Strategy at the National War College and Micah J, researcher at the Institute for National Strategic Studies at National Defense University, "Small Reactors and the Military's Role in Securing America's Nuclear Industry", 8/23, sitrep.globalsecurity.org/articles/100823646-small-reactors-and-the-militar.htm

Faced with the dual-obstacles of growing worldwide energy demand and a renewed push for clean energy, the stage is set for a vibrant revival of the nuclear power industry in the United States. During his 2008 campaign, President Barack Obama committed to setting the country on the road to a clean, secure, and independent energy future - and nuclear power can play a vital role in that. With abundant energy resources available and near-zero emission levels, nuclear power offers a domestically-generated, clean, and long-term solution to America's energy dilemma.¶ While countries around the world are building new reactors though, the U.S. nuclear power industry has remained dormant - and even borders on extinction - as no new plants have been approved for construction in the more than three decades following the Three Mile Island accident in 1979. Although Congress and the Executive Branch have passed laws and issued proclamations over the years, little actual progress has been made in the nuclear energy realm. A number of severe obstacles face any potential entrant into the reactor market - namely the Nuclear Regulatory Commission (NRC), which lacks the budget and manpower necessary to seriously address nuclear power expansion. Additionally, public skepticism over the safety of nuclear power plants has impeded serious attempts at new plant construction. However, despite the hurdles facing private industry, the U.S. military is in a position to take a leading role in the advancement of nuclear reactor technology through the integration of small reactors on its domestic bases.¶ While the Obama Administration has pledged $8 billion in federal loan guarantees to the construction of two new reactors in Georgia and an additional $36 billion in new guarantees to the nuclear industry, this comes on top of $18.5 billion budgeted, but unspent, dollars. Despite this aid, it is still improbable that the U.S. will see any new large reactors now or in the foreseeable future as enormous cost, licensing, construction, and regulatory hurdles must be overcome. In recent years though, attention in the nuclear energy sphere has turned in a new direction: small-scale reactors. These next-generation reactors seek to revolutionize the nuclear power industry and carry a host of benefits that both separate them from their larger cousins and provide a legitimate opportunity to successfully reinvigorate the American nuclear industry.¶ When compared to conventional reactors, small reactors have a number of advantages. First, the reactors are both small and often scalable - meaning that sites can be configured to house one to multiple units based on power needs. Although they only exist on paper and the military has yet to embrace a size or design, the companies investing in these technologies are examining a range of possibilities. Hyperion, for example, is working on a so-called "nuclear battery" - a 25 MWe sealed and transportable unit the size of a hot tub. Similarly, Babcock & Wilcox - the company which built many of the Navy's reactors - is seeking licensing for its mPower reactor, which is scalable and produces 125 MWe of power per unit. Other designs, such as Westinghouse's International Reactor Innovative and Secure (IRIS) model, have a generating capacity of up to 335 MWe.¶ Second, large reactors come with enormous price tags - often approaching $10 billion in projected costs. The costs associated with building new reactors are so astronomical that few companies can afford the capital outlay to finance them. Additionally, the risks classically associated with the construction of nuclear reactors serve as an additional deterrent to interested utilities. As a result, companies must be willing to accept significant financial risks since ventures could potentially sink them or result in credit downgrades - as evidenced by the fact that 40 of 48 utilities issuing debt to nuclear projects suffered downgrades following the accident at Three Mile Island. All of this adds up to an environment that is not conducive to the sponsorship of new reactor plants.¶ On the other hand, small reactors are able to mostly circumvent the cost hurdles facing large reactors. During the construction of large reactors, utilities face "single-shaft risk" - forced to invest and tie up billions of dollars in a single plant. However, small reactors present the opportunity for utilities to buy and add reactor capacity as needed or in a step-by-step process, as opposed to an all-or-nothing approach. Small reactors are also factory-constructed and shipped, not custom-designed projects, and can be built and installed in half the time - all of which are cost-saving measures.¶ Additionally, despite concerns from critics over the proliferation and safety risks that a cadre of small reactors would potentially pose, the reality is considerably different. On the safety side, the new designs boast a number of features - including passive safety measures and simpler designs, thus reducing the number of systems to monitor and potential for system failure, enhancing the safety of the reactors. Small reactors can often be buried underground, are frequently fully contained and sealed (complete with a supply of fuel inside), can run longer between refueling cycles, and feature on-site waste storage - all of which serve to further insulate and secure the units. Finally, due to their small size, the reactors do not require the vast water resources needed by large reactors and in the event of an emergency, are far easier to isolate, shut off, and cool down if necessary.¶ Notwithstanding all of these benefits, with a difficult regulation environment, anti-nuclear lobbying groups, and skeptical public opinion, the nuclear energy industry faces an uphill - and potentially unwinnable - battle in the quest for new reactors in the United States. Left to its own devices it is unlikely, at best, that private industry will succeed in bringing new reactors to the U.S. on its own. However, a route exists by which small reactors could potentially become a viable energy option: the U.S. military.¶ Since 1948, the U.S. Navy has deployed over 500 reactors and possesses a perfect safety record in managing them. At the same time, grave concern exists over the fact that U.S. military bases are tied to and entirely dependent upon the civilian electric grid - from which they receive 99% of their power. Recently, attention has turned to the fact that the civilian grid, in addition to accidents, is vulnerable to cyber or terrorist attacks. In the event of a deliberate attack on the United States that knocks out all or part of the electric grid, the assets housed at the affected bases would be unavailable and U.S. global military operations potentially jeopardized. The presence of small-scale nuclear reactors on U.S. military bases would enable these facilities to effectively become "islands" - insulating them from the civilian grid and even potentially deterring attacks if the opponent knows that the military network would be unaffected.¶ Unlike private industry, the military does not face the same regulatory and congressional hurdles to constructing reactors and would have an easier time in adopting them for use. By integrating small nuclear reactors as power sources for domestic U.S. military bases, three potential energy dilemmas are solved at the same time. First, by incorporating small reactors at its bases, the military addresses its own energy security quandary. The military has recently sought to "island" its bases in the U.S. -protecting them from grid outages, be they accidental or intentional. The Department of Defense has promoted this endeavor through lowering energy consumption on bases and searching for renewable power alternatives, but these measures alone will prove insufficient. Small reactors provide sufficient energy output to power military installations and in some cases surrounding civilian population centers.¶ Secondly, as the reactors become integrated on military facilities, the stigma on the nuclear power industry will ease and inroads will be created for the adoption of small-scale reactors as a viable source of energy. Private industry and the public will see that nuclear reactors can indeed be utilized safely and effectively, resulting in a renewed push toward the expansion of nuclear power. Although many of the same hurdles will still be in place, a shift in public opinion and a stronger effort by utilities, coupled with the demonstrated success of small reactors on military bases, could prove the catalysts necessary for the federal government and the NRC to take more aggressive action.¶ Finally, while new reactors are not likely in the near future, the military's actions will preserve, for a while longer, the badly ailing domestic nuclear energy industry. Nuclear power is here to stay around the globe, and the United States has an opportunity to take a leading role in supplying the world's nuclear energy and reactor technology. With the U.S. nuclear industry dormant for three decades, much of the attention, technology, and talent have concentrated overseas in countries with a strong interest in nuclear technology. Without the United States as a player in the nuclear energy market, it has little say over safety regulations of reactors or the potential risks of proliferation from the expansion of nuclear energy. If the current trend continues, the U.S. will reach a point where it is forced to import nuclear technology and reactors from other countries. Action by the military to install reactors on domestic bases will both guarantee the survival of the American nuclear industry in the short term, and work to solidify support for it in the long run.¶ Ultimately, between small-scale nuclear reactors and the U.S. military, the capability exists to revitalize America's sleeping nuclear industry and promoting energy security and clean energy production. The reactors offer the ability to power domestic military bases, small towns, and other remote locations detached from the energy grid. Furthermore, reactor sites can house multiple units, allowing for greater energy production - rivaling even large reactors. Small reactors offer numerous benefits to the United States and a path initiated by the military presents a realistic route by which their adoption can be achieved.

#### Investments in nuclear power trade off with investment in renewables – renewables key to halt warming

Carbon Control News 7/7/2008 “Activists make new economic case against nuclear's climate benefits”, lexis

A number of new reports have emerged arguing that investments in nuclear power could contribute to climate change, rather than reduce carbon dioxide (CO2) emissions, because those investments would divert limited resources from more cost-effective clean energy alternatives. The reports aim to counter the nuclear industry's inroads in casting nuclear power as a solution to global warming and highlight the contentious nature of the debate over what role -- if any -- nuclear should play in federal polices to address climate change.  Presumptive Republican presidential nominee John McCain (AZ) has said his administration would seek to build 45 new nuclear power plants by 2030 in order to stave off the worst effects of global warming. Meanwhile, industry officials point out that nuclear power is currently the largest source of low-carbon power in the United States. Nuclear plants are also "the lowest-cost producer of base-load electricity," according to the Nuclear Energy Institute (NEI), with the costs of operating a plant amounting to 1.76 cents per kilowatt-hour.  But environmentalists are increasingly citing rising construction costs and lingering concerns surrounding the disposal of radioactive nuclear waste to claim nuclear energy is not a long-term solution to climate change. And some environmentalists are now arguing that by diverting resources from more cost-effective renewable and energy efficiency investments, proponents of nuclear energy may actually be making attempts to mitigate global warming more difficult. Yet in a recent article for the conservative Heritage Foundation, Jack Spencer and Nick Loris write that, "Nuclear power must be expanded if CO2 caps are to work." They argue that unlike wind and solar power, which are intermittent and incapable of providing consistent base-load energy, nuclear power is capable of meeting growing demand for energy without emitting greenhouse gases.  While environmentalists point to the high costs of constructing a plant, the authors maintain those costs are not as high when considered in the context of the full lifetime operation of a nuclear plant. In fact, they write that, "Given the low cost needed to operate a nuclear plant, lifetime costs are very low once the plant has been constructed. It is therefore difficult to conclude that wind or solar power should be built at all."  Currently, NEI estimates construction costs for a new nuclear plant to be between $6 billion and $7 billion, while the utility company Florida Power & Light, which has plans to construct two new nuclear reactors, recently estimated that costs for a single reactor could be as high as $12 billion. But Spencer and Loris write that, "Additional production will allow these costs to be spread, thus lowering costs overall. Further savings should be achieved by applying lessons learned from initial construction projects. Because nuclear plants could have an operating life of 80 years, the benefit could be well worth the cost."  But those arguments have prompted a rebuttal from environmentalists and some economists. In a paper recently released by the environmental think tank Rocky Mountain Institute, "The Nuclear Illusion," Amory Lovins and Imran Sheikh concede that nuclear power, at least from a climate change perspective, far outperforms coal power, which currently provides around half of U.S. electricity. But the authors argue that nuclear power's decentralized, low-carbon competitors -- wind, solar, hydro, and cogeneration power -- can displace more coal power per dollar at a faster pace.  "New nuclear power costs far more than its distributed competitors, so it buys far less coal displacement per dollar than the competing investments it stymies," the authors write. "And its higher relative cost than nearly all competitors, per unit of net CO2 displaced, means that every dollar invested in nuclear expansion will worsen climate change by buying less solution per dollar."  Sheikh tells Carbon Control News that he and Lovins wrote the article, in part, because, "We're seeing this perceived resurgence in nuclear power because it's carbon-zero, or roughly carbon-zero, and since climate change is becoming such a hot topic." The paper was released now, Sheikh says, as a way to counter the increased focus on nuclear power as an answer to climate change, and to show "we can offer more climate protection for less money" by pursing efficiency and small, decentralized electricity production -- what is termed "micropower." His advice for lawmakers? "Just let all types of generation and efficiency compete on a level playing field, and when that happens micropower will probably win."  That is an argument Sheikh and Lovins repeatedly make in their paper: let investors choose energy sources, not politicians, because subsidies will only distort the market and possibly delay effective action on climate change. The authors argue that "full U.S. deployment" of decentralized micropower, including recovered waste-heat cogeneration and wind power, and end-use efficiency measures could replace much of nuclear energy's current U.S. market share "without significant land-use, reliability, or other constraints, and with considerable gains in employment" -- and without federal subsidies.  In April testimony before the House Select Committee on Global Warming and Energy Independence, Lovins noted that nuclear energy has attracted "no private risk capital despite U.S. taxpayer subsidies that can now total about $13 billion per new nuclear plant--roughly its entire cost." While politicians may decide to approve further subsidies for nuclear, "Heroic efforts at near- or over-100% subsidization will continue to elicit the same response as defibrillating a corpse: it will jump, but it won't revive."

#### Extinction

Speth 8 [James, dean of the Yale School of Forestry and Environmental Studies at Yale University, New Haven, Connecticut. Currently he serves the school as the Carl W. Knobloch, Jr. Dean and Sara Shallenberger Brown Professor in the Practice of Environmental Policy, The Bridge @ the Edge of the World, pg. 26]

The possibility of abrupt climate change is linked to what may be the most problematic possibility of all—"positive" feedback effects where the initial warming has effects that generate more warming. Several of these feedbacks are possible. First, the land's ability to store carbon could weaken. Soils and forests can dry out or burn and release carbon; less plant growth can occur, thus reducing nature's ability to remove carbon from the air. Second, carbon sinks in the oceans could also be reduced due to ocean warming and other factors. Third, the potent greenhouse gas methane could be released from peat bogs, wetlands, and thawing permafrost, and even from the methane hydrates in the oceans, as the planet warms and changes. Finally, the earth's albedo, the reflectivity of the earth's surface, is slated to be reduced as large areas now covered by ice and snow diminish or are covered by meltwater. All these effects would tend to make warming self-reinforcing, possibly leading to a greatly amplified greenhouse effect. The real possibility of these amplifying feedbacks has alarmed some of our top scientists. James Hansen, the courageous NASA climate scientist, is becoming increasingly outspoken as his investigations lead him to more and more disturbing conclusions. He offered the following assessment in 2007: "Our home planet is now dangerously near a 'tipping point.' Human-made greenhouse gases are near a level such that important climate changes may proceed mostly under the climate system's own momentum. Impacts would include extermination of a large fraction of species on the planet, shifting of climatic zones due to an intensified hydrologic cycle with effects on freshwater availability and human health, and repeated worldwide coastal tragedies associated with storms and a continuously rising sea level. .. . "Civilization developed during the Holocene, a period of relatively tranquil climate now almost 12,000 years in duration. The planet has been warm enough to keep ice sheets off North America and Europe, but cool enough for ice sheets on Greenland and Antarctica to be stable. Now, with rapid warming of o.6°C in the past 30 years, global temperature is at its warmest level in the Holocene. "This warming has brought us to the precipice of a great 'tipping point” If we go over the edge, it will be a transition to 'a different planet,' an environment far outside the range that has been experienced by humanity. There will be no return within the lifetime of any generation that can be imagined, and the trip will exterminate a large fraction of species on the planet.

### Off

#### DoD support for biofuels is increasing—that assuages investor fears

[Lawrence](http://blogs.forbes.com/pikeresearch/) 12/14/12—Contributor @ Forbes [[Mackinnon Lawrence](http://blogs.forbes.com/pikeresearch/), “Policy Shifts Signal Growth Ahead for Advanced Biofuels,” Forbes, 12/14/2012, http://tinyurl.com/c5j372j]

Over the past year, the U.S. military has emerged as a key torchbearer leading the commercialization of advanced biofuels. Spearheaded by the Navy, which signed a Memorandum of Understanding (MOU) with the U.S. Department of Agriculture (USDA) and Department of [Energy](http://www.forbes.com/energy/) (DOE) to develop cost-competitive advanced biofuels, the DoD has been a lone bright spot for an industry that has suffered from press blowback and investor retrenchment in recent years.¶ Only $84 Billion to Go¶ Prior to the Hagan amendment, the Senate approved another amendment, offered by Senator Mark Udall of [Colorado](http://www.forbes.com/places/co/), to repeal section 313 of the annual Defense appropriations bill. Offered by Republican Senator James Inhofe of [Oklahoma](http://www.forbes.com/places/ok/), Section 313 would have prohibited the DoD from procuring alternative fuels if they cost more than their conventional counterparts. The section was introduced in response to the U.S. Navy’s [highly criticized purchase of advanced biofuels](http://www.biodieselmagazine.com/articles/8585/us-navys-great-green-fleet-demonstration-is-underway) from firms like [Solazyme](http://solazyme.com/) and [Dynamic Fuels](http://www.dynamicfuels.com/) for its “Great Green Fleet” exercises off the coast of Hawaii, at an estimated price-tag of $15 per gallon.¶ These bills are expected to facilitate public-private partnerships and funnel much-needed capital to support advanced biorefinery construction within the United States. In our [Industrial Biorefineries](http://www.pikeresearch.com/research/industrial-biorefineries) report, Pike Research forecasts that at least 13 billion gallons of advanced biorefinery production capacity will come online over the next decade in the United States. Although that falls short of the 21 billion gallons of advanced biofuels carved out under the EPA’s Renewable Fuel Standard (RFS), more than $60 billion will be invested over that same period.¶ With the minimum cost of scale-up to meet the advanced biofuel production mandate estimated at $84 billion, the industry still has significant ground to make up. Although continued federal support will help assuage investor fears, uncertainties around feedstock supply and production profitability persist, translating into high levels of risk for investors.¶ Advanced biofuels, which address these concerns at least in part, have enjoyed a rising tide of policy support in recent months from Washington. In August, Congress allocated $170 million to support the development of military biofuels and other defense initiatives, voted to extend key tax credits for advanced biofuel producers, and granted algae producers tax credit parity with other feedstock pathways. Meanwhile, the recent commissioning of first-of-kind facilities from advanced biofuel producers [KiOR](http://www.kior.com/) and [INEOS Bio](http://www.ineosbio.com/57-Welcome_to_INEOS_Bio.htm) are strong indicators of a maturing cellulosic biofuels industry.

#### They force a tradeoff with the fuel budget

Eoyang 12—National Security Director @ Third Way [Mieke Eoyang, Julie Zelnick (Policy Advisor for National Security @ Third Way), & Ryan Fitzpatrick (Senior Policy Advisor for the Third Way Clean Energy Program), “Fuel Costs Squeeze Defense Budget,” Third Way Digest, May 2012, pg. 1]

In 2011, Congress passed the Budget Control Act, which put long-term limits on defense spending as part of a broader effort to curb the $15.7 trillion federal budget deficit. Though DOD’s budget will grow over the next 10 years, it will rise at a smaller rate than previously projected. This means DOD’s topline budget going forward will be more flat. Rising costs in one area will come at the expense of others.1 ¶ Given such constraints, DOD must carefully scrutinize every cost and find efficiencies where it can. One of those costs is fuel—a critical component of military operations, especially for ground vehicles, ships, and aircraft. DOD spends about $16 billion on fuel each year—more than double what UPS, FedEx, and DHL spend on global shipping operations, combined.3

#### Biofuels will lose out

Erwin 12—Editor of National Defense Magazine [Sandra I. Erwin, [‘Policy Uncertainty’ Could Choke Development of Military Biofuels](http://www.nationaldefensemagazine.org/blog/Lists/Posts/Post.aspx?ID=844),” National Defense, 7/26/2012, http://tinyurl.com/d82e34n]

To outsiders, the NDAA debate is just one more partisan battle in Washington’s larger political wars. But anti-biofuel sentiments on Capitol Hill are raising serious alarm bells within the alternative-fuel industry and stirring concerns among Pentagon officials who support green energy because of the chilling effect that the political divide could have on private investment. “If there is a lot of uncertainty, we are going to lose private capital,” said Phyllis Cuttino, director of the Pew Project on National Security, Energy, and Climate. The Defense Department’s plan to become a consumer of alternative fuels is predicated on the ability of the private sector to scale up production and on commercial airlines transitioning to biofuels so prices become more competitive. All that requires substantial private investments that might be at risk if venture capitalists decide that the politics of biofuels pose too big a financial risk. Assistant Secretary of Defense for Operational Energy Plans and Programs Sharon Burke said she does have concerns that legislative restrictions could jeopardize the Defense Department’s goals to diversify its sources of energy. “For the future, our military will need alternatives to petroleum to keep our supplies diverse, especially for our legacy fleet of ships and planes, which will be with us for decades to come,” Burke said in a statement to National Defense. “The private sector will be the leaders in developing a commercially viable alternative fuels industry, and we have concerns that restrictions on the department's ability to obtain the milspec fuel we need to achieve our mission may reduce the development and availability of these alternatives over the long term.” The Defense Department began to step up its pursuit of alternative fuels in 2007, and over the past two years the [Navy and the Air Force have made headlines for their embrace of aviation biofuels](http://www.nationaldefensemagazine.org/blog/lists/posts/post.aspx?ID=832) as a future hedge against rising oil prices and unreliable foreign oil suppliers. In the wake of the House and Senate NDAA amendments, Pew has mobilized biofuels supporters and [released a letter this week that was signed by more than 350 veterans](http://www.nationaldefensemagazine.org/blog/Lists/Posts/energy-innovation-seen-as-needed-to-reduce-dependence-on-foreign-oil-save-money-85899406931), including retired generals and admirals, as well as former Senate and House Armed Services Committee chairmen Sen. John Warner and Rep. Ike Skelton, urging the president and Congress to support the Pentagon’s initiatives to diversify its energy sources. The letter echoes biofuel producers’ belief that the military is needed as an essential anchor customer. Lawmakers in the House and Senate have argued that biofuels are cost prohibitive at a time when the military’s budget is stretched. The Navy’s “great green fleet” effort was particularly criticized by members of the House Armed Services Committee as an example of misplaced priorities when the Navy is cutting back on new ship buys and other modernization programs. The Senate Armed Services Committee agreed to add anti-biofuel provisions to the NDAA. Biofuel supporters’ best hope now lies with Sens. Jeanne Shaheen, D-N.H., and Susan Collins, R-Maine, who vowed in a recent op-ed article that they would fight to protect the Defense Department’s biofuel funds, including a Navy commitment of more than $200 million as part of joint $500 million effort with the Departments of Energy and Agriculture. Cuttino said the green-energy community has been taken aback by the partisan tenor of an issue that has national security implications. “We’ve been dismayed by the politicization of these [military biofuel] efforts,” Cuttino said July 24 during a conference call with reporters. “These issues should not be politicized,” she said. “To have these innovations singled out is unfortunate.” The Pentagon’s financial commitment is being blown out of proportion, she said. Biofuel expenditures are a tiny fraction of what the Defense Department spends on fuel each year, Cuttino said. The Pentagon’s annual energy bill is about $15 billion, three-quarters of which is spent on liquid fuels. Pew estimated that Defense Department biofuel expenditures last year were $1.2 billion, up from $400 million two years ago. A Pew study projects military biofuel purchases will reach $10 billion annually by 2030. When Congress was fighting a year ago over the nation’s debt ceiling, investors were alarmed. The battle over biofuels creates a similar cloud of policy uncertainty that could be damaging to an industry that is just getting off the ground, Cuttino said. The trends in private investment in alternative energy in G-20 countries are cause for concern, she said, as they indicate that investors tend to flee when they see policy indecision. “What we know from all our research over several years is that if there is a question of uncertainty when it comes to policy, private investment will move on to another country where there is more policy certainty.” The United States currently is a world leader in attracting private capital to alternative energy, she said. The European economic crisis might keep the United States in the lead for some time, but venture capitalists also may be souring on U.S. biofuels investments, according to analysts.¶ Interest in capital-intensive industries such as energy is fading, said a July report by Dow Jones VentureSource. Investors are raising red flags about biofuel investment because of the large amounts of capital needed to build infrastructure. “The second quarter is the worst for investment in energy and utilities start-ups since the first quarter of 2009,” said VentureSource. The Commercial Aviation Alternative Fuels Initiative — a coalition of airlines, aircraft and engine manufacturers, energy producers and U.S. government agencies — cautions that project financing is still the “biggest remaining challenge to the deployment of alternative aviation fuels.” Nevertheless, CAAFI is “confident that environmentally friendly alternative jet fuel derived from several feedstocks will be available in the next two to five years,” the group said in a statement on its website. The barrier to deployment, said CAAFI, is the availability of capital, as production plants cost on the order of $100,000 per barrel per day. FlightGlobal.com reported that, since 2007, more than 1,500 passenger flights have been made using biofuels produced from feedstocks such as household waste and algae. “The major challenge now is to work out how to produce large quantities of sustainable biofuel at a cost that is commercially competitive to airlines,” FlightGlobal noted. Lufthansa, one of the world’s largest airlines, has projected that renewable jet fuel will replace up to 5 percent of the market in the next five to seven years. In the United States, the biofuel industry needs the military to commit to long-term purchases so it can secure investors, Pew said in a statement. “The military’s leadership, cooperation with the private sector, and early adoption have been critical to the commercialization of many technologies such as semiconductors, nuclear energy, the Internet, and the Global Positioning System,” Pew noted. “Maintaining energy innovation, inside and outside the Defense Department, is critical to our national security.”

#### Biofuels will end oil wars.

Ventura 12—Essayist and cultural critic @ Austin Chronicle [[Michael Ventura](http://www.austinchronicle.com/authors/michael-ventura/), “Letters at 3AM: A Big Picture and a Long Game,” Austin Chronicle, [Fri., Oct. 19, 2012](http://www.austinchronicle.com/issues/2012-10-19/), pg. http://tinyurl.com/col9hvh

It's like Alice watching the Queen of Hearts play cards and croquet: "Three times so far this year, the Joint Chiefs of Staff and the regional war-fighting commanders have assembled at [Marine Corps Base Quantico, Va.], where a giant map of the world, larger than a basketball court, was laid out on the ground. ... The generals and admirals walked the world and worked their way through a series of potential national security crises. ... 'Strategic seminar' is the name Gen. Martin E. Dempsey, chairman of the Joint Chiefs of Staff, has chosen for these daylong sessions" (The New York Times online, Sept. 12).¶ Let's walk this immense map. We'll stroll roughly 5,500 miles from the Strait of Gibraltar eastward to the Afghan-Pakistani border. Then let's amble another 7,000 miles from Kazakhstan in Asia to Angola in Africa. In the area we've walked, alliances overlap and contradict one another—and are further complicated by trade routes, oil fields, rebels, pirates, and terrorists—and the United States has positioned itself in such a way that its chain can be yanked from almost any direction.¶ Focus on oil. According to the U.S. Energy Information Administration ([www.eia.gov](http://www.eia.gov/)), in 2011, 69% of U.S. oil originated in five countries, listed by volume: Canada, Saudi Arabia, Mexico, Venezuela, and Nigeria. Of the next 10 largest sources, six are in the area we've walked: three in the Persian Gulf—Iraq, Kuwait, and Oman; three in Africa—Angola, Algeria, and Chad.¶ Imagine some general scenarios: A destabilized Tunisia impacts bordering Algeria. A destabilized Libya impacts bordering Algeria and Chad. Chad, destabilized by a destabilized Libya, in turn destabilizes Nigeria.¶ Move west from Africa. A destabilized Yemen impacts neighboring Saudi Arabia and Oman. A belligerent Iran impacts Iraq, Kuwait, Saudi Arabia, and Oman.¶ Draw lines of possible crises this way and that, and the generals, admirals, and war commanders walking the big map must be bumping into one another with alarming frequency any way they turn. All for imported oil.¶ Oil dependence has put the United States in a strategically vulnerable and ultimately untenable position. There's no way we can cover all that turf indefinitely. We've neither the money nor the manpower.¶ One issue is clear: The cessation of our participation in Iraq and Afghanistan won't affect the overall situation.¶ "Large numbers of MRAPs [armored troop carriers] ... in Iraq and Afghanistan [will be] stored in Italy, where they could be transported for contingencies across Africa" (The New York Times online, July 27). "Contingencies" is a neutral word for war.¶ In 2008, President George W. Bush authorized "the newest regional headquarters, Africa Command" (The New York Times, Oct. 5, 2008, p.8). "Africom" is based in Stuttgart, Germany, "owing to local [African] sensitivities." Its commander, Gen. William E. Ward, "rejected criticisms that Africa Command would result in a militarization of foreign policy, and he said it was specifically structured for cooperative efforts," though he didn't define what that meant.¶ Whatever it meant, President Obama has appointed a new commander. Gen. David M. Rodriguez is an officer of "extensive combat experience. ... [He] served two tours in Iraq and two tours in Afghanistan ... and later [was] deputy commander of allied forces there with responsibility for day-to-day management of the war. ... [Rodriguez] was one of the architects" of Obama's Afghan surge (The New York Times online, Sept. 19).¶ Sounds like the Pentagon and the White House anticipate action in Africa.¶ The July 27 report cited above added that "MRAPs would be sent to warehouses in the western Pacific" and "significant numbers are stored in Southwest Asia."¶ The U.S. is building a base in Darwin, on the northwest tip of Australia, "as a new center of operations in Asia as it seeks to ... grapple with China's rise" (The New York Times, Nov. 15, 2011, p.6).¶ Recently, Secretary of State Hillary Rodham Clinton and Secretary of Defense Leon E. Panetta crisscrossed the western Pacific from China to New Zealand assuring everybody that we're not trying to "contain" China; we're merely, in Panetta's words, continuing "to be what we have been now for seven decades: the pivotal military power in the Asia-Pacific region" (The New York Times online, Sept. 13).¶ But something is true today that has not been true for most of those seven decades. According to the Central Intelligence Agency ([www.cia.gov](http://www.cia.gov/)), China is the No. 1 trading partner of Australia, Japan, South Korea, Malaysia, the Philippines, the Solomon Islands, Taiwan, and Thailand. And China is a major commercial player with everybody else in the region.¶ We're defending these Pacific countries against their major trading partner?¶ "'What worries us is having to choose [between the U.S. and China]—we don't want to be in that position,' said the foreign minister of Indonesia" (The New York Times online, June 1). You bet they don't.¶ China, Japan, and others are jockeying for some seemingly worthless (even uninhabited) islands in the South and East China seas.¶ "Quarrels over these hunks of volcanic rock wouldn't matter much except that China, Vietnam, and the Philippines are running into one another in the race for oil" (The New York Times, Nov. 13, 2011, p.SR4). It's about offshore drilling, that report says. "The South China Sea alone is estimated to have 61 billion barrels of petroleum—oil and gas—plus 54 billion yet to be discovered." Oil again.¶ In the long game, who wins influence over the area? The United States or China? Put it another way: Who wins? The depleted, financially struggling, politically deadlocked nation many thousands of miles away or the money- and manpower-rich rising nation playing in its own pool? (After all, the disputed areas are called the South and East China Seas.)¶ Again, the U.S. is setting itself up in a strategically untenable position.¶ Navy Secretary Ray Mabus said, "We buy too much fossil fuels from potentially or actually volatile places on earth" (NPR online, Sept. 26, 2011).¶ But the unexpected always happens, and that NPR report reveals something most unexpected: Of all U.S. federal institutions, the Navy and Air Force lead in seeking a nonviolent, eco-friendly path out of America's strategic morass. They "have been busy testing their aircraft ... on jet biofuel. ... [T]he Navy has launched a project to invest up to half a billion dollars in biofuel refineries. Mabus says he is committed to getting 50 percent of the Navy's fuel for aircraft and surface ships from renewable sources by 2020 because dependence on foreign oil makes the U.S. military vulnerable."¶ Predictably, "the biofuel program has struck a nerve among Republicans," who are trying to limit military biofuel use by law (The New York Times online, Aug. 27). Their Big Oil donors know that if a military market makes biofuels cheap, then America's airlines, railways, and truckers will want it too, and other oil-dependent nations will follow our lead.¶ Mostly for the sake of oil, the Obama administration's strategies extend U.S. military reach beyond practical limits—limits that Mitt Romney, if elected, plans to strain still further. But the military has come up with an elegant solution: Strategically and environmentally, a U.S. military powered by biofuels could be a 21st century game-changer that ends the oil wars and drains Big Oil's political dominance.¶ That is a real possibility. It is also possible that, walking a map bigger than a basketball court, our commanders will bump into one another indefinitely, attempting to defend an indefensible strategy.

### Solvency

#### Their solvency ev is industry cheerleading—diverse distributed sources solve better.

Lovins 10—Chair and Chief Scientist @ Rocky Mountain Institute [Amory B. Lovins (Experimental Physicist and Former professor of Advanced Energy Efficiency @ Stanford University) , “Lovins addresses New Nuclear Power for DOD (Q&A 3 of 3)” DOD Energy Blog, Wednesday, May 12, 2010, http://dodenergy.blogspot.com/2010/05/lovins-addresses-new-nuclear-power-for\_12.html]

Question 3: Are there any points in particular you'd like to call out re: the on nuclear energy generation potential for DOD? ABL: Yes. Two major technical task forces evaluating DoD's energy options have carefully considered the various nuclear technologies at diverse scales that were vigorously suggested to them. Both pointedly declined to recommend military pursuit of any nuclear technology to power facilities. My 1Q2010 Joint Force Quarterly (JFQ) article "DoD's Energy Challenge as Strategic Opportunity" explains, with footnotes omitted: "Nuclear power is sometimes suggested for land installations or even expeditionary forces, typically without discussing cost (grossly uncompetitive), modern renewables (typically much cheaper), operational reliability (usually needing 100% backup), or security. For these and other reasons, the 2008 DSB and JASON task forces didn’t endorse this option." Some of the task forces' reasons are obvious. For isolated or grid-connected fixed installations, any mini-reactor would require 100% backup, as analysis of a Toshiba ~10-MWe unit proposed for the fly-in village of Galena, Alaska confirmed. Moreover, its economics would be dreadful. Unconservatively assuming the same $2,500/KWe capital cost at 10 MWe as at 50 MWe, a found that if the reactor (with capex upwards of 9¢/KWh) and its licensing (roughly comparable or larger under current rules), its installation and removal, and its decommissioning were all free, if O&M costs were half Toshiba's estimate for the 50-MWe design, and if NRC dropped the required security staffing from 34 to 4 guards, then the ~5–14¢/KWh operating cost alone might compete with diesel's, burning costly barged-in fuel; but to make even this work, the study had to make many absurd assumptions. I'm unaware of any remote installation for which a mini-reactor can be shown to be competitive. Nor, inherently, can a mini-reactor's security of supply approach that of a properly designed network of diverse and distributed sources. The principles of resilient design, summarized in Ch. 13 of " Brittle Power", are no more compatible with a single power source than are the principles of least cost . Nuclear power does not earn a place in a "diversified" DOD energy supply portfolio simply by being different, any more than a financial portfolio should include one of everything on offer. Rather, a balanced portfolio includes only assets with a clear risk-and-return rationale. The Naval situation is different, but not completely, as my JFQ article continued: "After vast investment in hardware and a unique technical culture, nuclear propulsion has proven its merit in submarines and aircraft carriers. In 2006–09, Congressional enthusiasts announced supposed Naval Sea Systems Command (NAVSEA) findings that nuclear propulsion in new medium surface combatants could beat $70/bbl oil. However, the 2008 DSB task force discovered that NAVSEA’s actual finding ($75–225/bbl) had improperly assumed a zero real discount rate. A 3%/y real discount rate yielded a $132–345/bbl break even oil price; NAVSEA didn’t respond to requests to test the 7%/year real discount rate OMB probably mandates. Presumably the Secretary of Defense will reject this option and focus resources on making ships optimally efficient." In short, as my JFQ article concluded, "The 2008 DSB and JASON studies are redirecting the military energy conversation from exotic, speculative, and often inappropriate supplies to efficient use, which makes autonomous in-theater supply important and often cost-effective...." It's therefore disappointing to see that some in the Building, apparently unaware of the full competitive landscape, are now wasting still more time and money on nuclear power after both of DOD's advisory bodies rejected it for many compelling reasons. I hope the Congressionally mandated report the DOD Energy Blog mentions (4th paragraph: here), due 1 Jun 2010, will dig deeper than the current cheer-leading—originating ultimately from vendors desperate to find a cost-insensitive customer for technologies already rejected by the marketplace. There you have it, sports fans. Amory's systems-based, economics-grounded response has substantially squelched my recently burgeoning enthusiasm for a new nuclear component to DOD's energy portfolio. I have to check my own cheer-leading tendencies sometimes. That said, if there's a man or woman among you who wants to attempt a public retort to these arguments, be my guest ... and good luck, you're going to need it!

#### Reactors are still in the research stage—they are decades away from being deployable.

Anderson 10—Senior Engineer in the Integrated Applications Office @ National Renewable Energy Laboratory [Kate Anderson “SMALL NUCLEAR REACTORS,” White Paper, February 1, 2010]

Despite these benefits, small reactors have many challenges to overcome. A few designs are in the engineering phase and could be commercialized within a decade, but most designs are still in the research stage, and will require extensive engineering and demonstration before they are ready to be commercialized. The unique design features that make small reactors appealing, like passive safety systems and integral designs, require non-traditional components that will need to be fully developed, tested, and demonstrated. Additional developments in instrumentation and control will be needed for most small reactor designs. Designs that depart from the traditional light water reactor technology may required significant material and fuel qualification as well, which could take 10-12 years or more.9 pg. 3-4

### Grid

#### Status quo solves islanding---the military figured out their advantage and fixed it

Michael Aimone 9-12, Director, Business Enterprise Integration, Office of the Deputy Under Secretary of Defense (Installations and Environment), 9/12/12, Statement Before the House Committee on Homeland Security, Subcommittee on Cybersecurity, Infrastructure Protection and Security Technologies, http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf

DoD’s facility energy strategy is also focused heavily on grid security in the name of mission assurance. Although the Department’s fixed installations traditionally served largely as a platform for training and deployment of forces, in recent years they have begun to provide direct support for combat operations, such as unmanned aerial vehicles (UAVs) flown in Afghanistan from fixed installations here in the United States. Our fixed installations also serve as staging platforms for humanitarian and homeland defense missions. These installations are largely dependent on a commercial power grid that is vulnerable to disruption due to aging infrastructure, weather-related events, and potential kinetic, cyber attack. In 2008, the Defense Science Board warned that DoD’s reliance on a fragile power grid to deliver electricity to its bases places critical missions at risk.1 Standby Power Generation Currently, DoD ensures that it can continue mission critical activities on base largely through its fleet of on-site power generation equipment. This equipment is connected to essential mission systems and automatically operates in the event of a commercial grid outage. In addition, each installation has standby generators in storage for repositioning as required. Facility power production specialists ensure that the generators are primed and ready to work, and that they are maintained and fueled during an emergency. With careful maintenance these generators can bridge the gap for even a lengthy outage. As further back up to this installed equipment, DoD maintains a strategic stockpile of electrical power generators and support equipment that is kept in operational readiness. For example, during Hurricane Katrina, the Air Force transported more than 2 megawatts of specialized diesel generators from Florida, where they were stored, to Keesler Air Force Base in Mississippi, to support base recovery.

#### Zero impact to grid failures, even ones caused by cyber attacks

Douglas Birch 10-1, former foreign correspondent for the Associated Press and the Baltimore Sun who has written extensively on technology and public policy, 10/1/12, “Forget Revolution,” Foreign Policy, http://www.foreignpolicy.com/articles/2012/10/01/forget\_revolution?page=full

Government officials sometimes describe a kind of Hieronymus Bosch landscape when warning of the possibility of a cyber attack on the electric grid. Imagine, if you will, that the United States is blindsided by an epic hack that interrupts power for much of the Midwest and mid-Atlantic for more than a week, switching off the lights, traffic signals, computers, water pumps, and air conditioners in millions of homes, businesses, and government offices. Americans swelter in the dark. Chaos reigns! Here's another nightmare scenario: An electric grid that serves two-thirds of a billion people suddenly fails in a developing, nuclear-armed country with a rich history of ethnic and religious conflict. Rail transportation is shut down, cutting off travel to large swathes of the country, while many miners are trapped underground. Blackouts on this scale conjure images of civil unrest, overwhelmed police, crippled hospitals, darkened military bases, the gravely injured in the back of ambulances stuck in traffic jams. The specter of what Defense Secretary Leon Panetta has called a "digital Pearl Harbor" led to the creation of U.S. Cyber Command, which is tasked with developing both offensive and defensive cyber warfare capabilities, and prompted FBI Director Robert Mueller to warn in March that cyber attacks would soon be "the number one threat to our country." Similar concerns inspired both the Democrats and Republicans to sound the alarm about the cyber threat in their party platforms. But are cyber attacks really a clear and present danger to society's critical life support systems, capable of inflicting thousands of casualties? Or has fear of full-blown cybergeddon at the hands of America's enemies become just another feverish national obsession -- another of the long, dark shadows of the 9/11 attacks? Worries about a large-scale, devastating cyber attack on the United States date back several decades, but escalatedfollowing attacks on Estonian government and media websites during a diplomatic conflict with Russia in 2007. That digital ambush was followed by a cyber attack on Georgian websites a year later in the run-up to the brief shooting war between Tbilisi and Moscow, as well as allegations of a colossal, ongoing cyber espionage campaign against the United States by hackers linked to the Chinese army. Much of the concern has focused on potential attacks on the U.S. electrical grid. "If I were an attacker and I wanted to do strategic damage to the United States...I probably would sack electric power on the U.S. East Coast, maybe the West Coast, and attempt to cause a cascading effect," retired Admiral Mike McConnell said in a 2010 interview with CBS's 60 Minutes. But the scenarios sketched out above are not solely the realm of fantasy. This summer, the United States and India were hit by two massive electrical outages -- caused not by ninja cyber assault teams but by force majeure. And, for most people anyway, the results were less terrifying than imagined. First, the freak "derecho" storm that barreled across a heavily-populated swath of the eastern United States on the afternoon of June 29 knocked down trees that crushed cars, bashed holes in roofs, blocked roads, and sliced through power lines. According to an August report by the U.S. Department of Energy, 4.2 million homes and businesses lost power as a result of the storm, with the blackout stretching across 11 states and the District of Columbia. More than 1 million customers were still without power five days later, and in some areas power wasn't restored for 10 days. Reuters put the death tollat 23 people as of July 5, all killed by storms or heat stroke. The second incident occurred in late July, when 670 million people in northern India, or about 10 percent of the world's population, lost power in the largest blackout in history. The failure of this huge chunk of India's electric grid was attributed to higher-than-normal demand due to late monsoon rains, which led farmers to use more electricity in order to draw water from wells. Indian officials told the media there were no reports of deaths directly linked to the blackouts. But this cataclysmic event didn't cause widespread chaos in India -- indeed, for some, it didn't even interrupt their daily routine. "[M]any people in major cities barely noticed the disruption because localized blackouts are so common that many businesses, hospitals, offices and middle-class homes have backup diesel generators," the New York Timesreported. The most important thing about both events is what didn't happen. Planes didn't fall out of the sky. Governments didn't collapse. Thousands of people weren't killed. Despite disruption and delay, harried public officials, emergency workers, and beleaguered publics mostly muddled through. The summer's blackouts strongly suggest that a cyber weapon that took down an electric grid even for several days could turn out to be little more than a weapon of mass inconvenience. That doesn't mean the United States can relax. James Lewis, director of the technology program at the Center for Strategic and International Studies, believes that hackers threaten the security of U.S. utilities and industries, and recently penned an op-ed for the New York Times calling the United States "defenseless" to a cyber-assault. But he told Foreign Policy the recent derecho showed that even a large-scale blackout would not necessarily have catastrophic consequences.

#### Public will oppose military usage – turns case

Baker ’12 – Adjunct Junior Fellow @ AmericanSecurity Project, BA in Political Science (Matthew, “Do Small Modular Reactors Present a Serious Option for the Military’s Energy Needs?”, June 22, <http://americansecurityproject.org/blog/2012/do-small-modular-reactors-present-a-serious-option-for-the-militarys-energy-needs/>, CMR)

Thirdly, some supporters of SMR technology seem to have a skewed opinion of public perception toward nuclear energy. Commissioner of the U.S. Nuclear Regulatory Commission, William C. Ostendorff, didn’t seem to think that the recent Fukushima disaster would have any impact on the development on SMRs. Opinion polls suggest Americans are more likely to think that the costs of nuclear outweigh its benefits since the Fukushima disaster. For SMRs to be the philosopher’s stone of the military’s energy needs the public needs to be on board.

**Data disproves hegemony impacts**

**Fettweis, 11** Christopher J. Fettweis, Department of Political Science, Tulane University, 9/26/11, Free Riding or Restraint? Examining European Grand Strategy, Comparative Strategy, 30:316–332, EBSCO

It is perhaps worth noting that **there is no evidence to support a direct relationship between** the relative level of **U.S. activism and international stability**. In fact, **the limited data we do have suggest the opposite may be true**. During the 1990s, the United States cut back on its defense spending fairly substantially**. By 1998, the United States was spending $100 billion less on defense in real terms than it had in 1990**.51 To internationalists, defense hawks and believers in hegemonic stability, this irresponsible “peace dividend” endangered both national and global security. “No serious analyst of American military capabilities,” argued Kristol and Kagan, “doubts that the defense budget has been cut much too far to meet America’s responsibilities to itself and to world peace.”52 On the other hand, **if** the pacific **trends were not based upon U.S. hegemony but** **a strengthening norm against interstate war, one would not have expected an increase in global instability and violence.** The verdict from the past two decades is fairly plain: **The world grew more peaceful while the U**nited **S**tates **cut its forces. No state seemed to believe that its security was endangered by a less-capable U**nited **S**tates **military**, or at least **none took any action that would suggest** **such a belief**. **No militaries were enhanced to address power vacuums, no security dilemmas drove insecurity or arms races, and no regional balancing occurred once the stabilizing presence of the U.S. military was diminished**. The rest of the world acted as if the threat of international war was not a pressing concern, despite the reduction in U.S. capabilities. Most of all, the United States and its allies were no less safe. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Clinton, and kept declining as the Bush Administration ramped the spending back up. No complex statistical analysis should be necessary to reach the conclusion that the two are unrelated. Military spending figures by themselves are insufficient to disprove a connection between overall U.S. actions and international stability. Once again, one could presumably argue that spending is not the only or even the best indication of hegemony, and that it is instead U.S. foreign political and security commitments that maintain stability. Since neither was significantly altered during this period, instability should not have been expected. Alternately, advocates of hegemonic stability could believe that relative rather than absolute spending is decisive in bringing peace. Although the United States cut back on its spending during the 1990s, its relative advantage never wavered. However, **even if it is true that either U.S. commitments** or relative spending **account for global** pacific **trends**, then at the very least stability can evidently be maintained at drastically lower levels of both. In other words, even if one can be allowed to argue in the alternative for a moment and suppose that **there is in fact a level of engagement below which the U**nited **S**tates **cannot drop without increasing international disorder, a rational grand strategist would still recommend cutting back on engagement and spending until that level is determined**. **Grand strategic decisions are never final**; continual **adjustments can** and must **be made** as time goes on. Basic logic suggests that the United States ought to spend the minimum amount of its blood and treasure while seeking the maximum return on its investment. And if the current era of stability is as stable as many believe it to be, no increase in conflict would ever occur irrespective of U.S. spending, which would save untold trillions for an increasingly debt-ridden nation. It is also perhaps worth noting that if opposite trends had unfolded, if other states had reacted to news of cuts in U.S. defense spending with more aggressive or insecure behavior, then internationalists would surely argue that their expectations had been fulfilled**. If increases in conflict would have been interpreted as proof of the wisdom of internationalist strategies, then logical consistency demands that the lack thereof should** at least **pose a problem**. As it stands, **the only evidence we have regarding the likely systemic reaction to a more restrained United States suggests that the current peaceful trends are unrelated to U.S. military spending**. Evidently **the rest of the world can operate** quite **effectively without the presence of a global policeman. Those who think otherwise base their view on faith alone.**

### Basing

#### Alt cause – military planning – their author

BINNENDIJK AND JOHNSON 2003 (Hans and Stuart, Center for Technology and National Security, National Defense University, “Transforming for Stabilization and Reconstruction Operations,” Nov 12)

With these points in mind, a more coherent framework to guide planning and thinking must emerge. This suggests the need for some limited, but useful generalizations that can be developed to serve as the conceptual basis for thinking and planning future military operations with post-conflict requirements in mind. The following sections are organized under subheadings: 1) Coherent War-Winning and Peace Winning Strategy; 2) Unity of Effort; 3) Compelling and Consistent Strategic Message; 4) Full Spectrum Planning; 5) Concurrency of Operations; 6) Precision-targeting of Rejectionist Elements; 7) Cultural Intelligence; 8) Early, Demonstrable Success in Key Areas; 9) Early Introduction of Indigenous Capabilities; and, 10) Lego-like Security and Reconstruction Capabilities. The point of this approach is simple: Once the right questions are asked, answers can be provided and action can be taken to address the identified requirements.

#### No risk of war or relations collapse – practical necessity ensures no escalation

Sestanovich '8

Professor of International Diplomacy at Columbia and George F Keenan Senior Fellow for Russian studies @ CFR [Stephen, Kathryn and Shelby Cullom Davis Professor of International Diplomacy at Columbia University and George F. Kennan Senior Fellow for Russian and Eurasian Studies at the Council on Foreign Relations, He was Ambassador-at-Large for the former Soviet Union from 1997 to 2001, November/December,“what has Moscow done?”, foreign affairs, http://www.scrapsofmoscow.org/2008/11/time-to-repair-relationship.html]

Against this backdrop, Russia's invasion of a small neighbor might have seemed to be final confirmation of the view that Russia has become, in the words of the British economist Robert Skidelsky, "the world's foremost revisionist power." And yet, for all the recent references to the Sudetenland and the crushing of the Prague Spring, Western governments have made clear that such parallels will not guide their response. Government officials and pundits alike have been coupling their denunciations of Moscow with assurances that they want to work with it in advancing common interests, whether on nuclear proliferation, terrorism, energy security, drug trafficking, or climate change. The more these issues are invoked, the less one should expect U.S. policy toward Russia to change.Harry Truman, it might be recalled, did not usually speak of his determination to work with Joseph Stalin. For two decades, the idea that the United States needs Russia for practical reasons has led Washington, even in moments of shock and confusion over Russia's actions, to want to keep relations with Russia from becoming any worse than necessary. Although U.S. policymakers have considered Moscow a high-maintenance partner with whom getting to yes is extremely frustrating and sometimes almost hopeless, they have never been ready to give up on the effort. Even Russia's war with Georgia has not changed this outlook, and for the foreseeable future probably nothing will.

#### SMR’s cant solve heg and DOD won’t deploy them

Wong ’12 (Kelvin Wong, Kelvin Wong is an Associate Research Fellow at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University. He is with the Military Studies Programme at the School’s constituent unit, the Institute of Defence and Strategic Studies, “The Military’s Quest for Nuclear Power”, <http://rolandsanjuan.blogspot.com/2012/05/beyond-weapons-militarys-quest-for.html>, May 18, 2012

Synopsis The military has always maintained an interest in the application of nuclear energy in its operations. In a bid to reduce logistical strain caused by power-hungry bases and vehicles operating over significant distances, some military forces have experimented with nuclear technology to seek potential solutions. However, it is unlikely that such concepts will become a mainstream reality. Commentary In April 2012 American scientists unveiled a radical plan for advanced unmanned aerial vehicles (UAV) powered by ‘next generation concepts’. The proposal, titled ‘Unmanned Air Vehicle Ultra Persistence Research’ was jointly developed by Sandia National Laboratories – the US government’s principal nuclear research and development agency – and military contractor Northrop Grumman. The research team noted that the application of such persistent technologies to UAVs would dramatically extend flight times, as well as enable more powerful sensor and weapon systems to be fitted. The proposal all but established that the team had been experimenting with nuclear propulsion concepts, especially when considering Sandia’s background and the research team’s concern over political sensitivities of nuclear power. Nuclear power: more than destruction Military exploitation of nuclear power has not always been limited to weapons of mass destruction and large naval platforms. As early as the 1940s, American scientists experimented with a salt-based nuclear reactor concept for civilian aircraft propulsion. However, early designs lacked durability and it was not till 1954 that a stable reactor was built at the Oak Ridge National Laboratory. During the Cold War, both the United States and the Soviet Union experimented with nuclear technology for its military aircraft, with the same intention to develop intercontinental bombers capable of reaching virtually any target on the planet. American defence contractors at the behest of the United States Air Force (USAF) investigated the feasibility of nuclear powered military aircraft, which was never realised as a result of cost and technical limitations, as well as crew safety concerns. On the other side of the Bering Strait, the Soviet Union also pursued its own nuclear-powered aircraft development. Despite promising results from limited flight-testing, Soviet military interest in the nuclear-powered bomber soon faded in favour of more cost-effective ballistic missile systems. There had also been an interest in the application of nuclear power for land-based forces during the same period. From early 1950 to late 1970 the US military had investigated the possibility of deploying smaller-scale and portable nuclear reactors in a bid to reduce logistical challenges imposed by energy-dependent vehicles and military bases. For example, a 1963 study submitted to the US Department of Defense (DOD) proposed the use of a small nuclear reactor as the power source for an energy depot. The proposal, called the military compact reactor (MCR), was an attempt to solve the logistics problem of supplying fuel to military vehicles on the battlefield. While military vehicles could not derive power directly from the nuclear reactor, the MCR could provide power to produce synthetic fuel to replace conventional petroleum fuel. In addition to the MCR, US Army engineers had also successfully operated a series of compact nuclear reactors in remote military bases, and even considered the use of nuclear power overseas to provide uninterrupted power in the event that US bases were cut off from regular supply lines. However, further development of the MCR ceased due to the cost and technical limitations. Other concepts had been more successful. From 1968 to 1975, the US Army operated a floating nuclear reactor which supplied electrical power in the Panama Canal Zone. Even though it proved its worth, the floating reactor eventually ceased operation due to high costs and the cancellation of the Army’s nuclear research programme. Civilian and military nuclear incidents Despite improvements in nuclear safety, public sentiment on nuclear power is generally unfavourable, particularly after a series of high-profile nuclear incidents over the years. Disasters like Chernobyl, Three Mile Island, and the recent Fukushima episodes have sorely demonstrated the perils of operating nuclear reactors, emanating be it from human error or natural calamities. Military forces have also been stung by peacetime nuclear incidents. In March 2008, the American nuclear submarine USS Houston leaked minute amounts of radiation into Sasebo naval base while on a port call, triggering condemnation from Japanese citizens in the district. In the same year, the British nuclear submarine HMS Trafalgar leaked hundreds of litres of radioactive wastewater into a nearby river while docked at Devonport naval base, raising concerns from nuclear safety experts. Mainstream nuclear power in the military? Yet military scientists have not ceased to be tempted by the potential of nuclear power. In response to increasing oil prices and global supply uncertainties, and well-documented cases of logistical strain on forces operating in the Middle East in recent conflicts, the US Defense Advanced Research Projects Agency (DARPA) issued a proposal for innovative solutions in deployable compact nuclear reactors in 2010. In the proposal, DARPA outlined the need to reduce the logistical burden of supplying forward operating bases and forces without access to reliable fuel supply lines. The proposal also suggested that materials science have advanced to the stage where it might have a positive impact on deployable nuclear reactor research. While recent developments suggest that nuclear power technology can potentially be employed in unmanned aircraft and on the ground, it is unlikely to have mainstream military utility. The Cold War period was an era when general attitudes towards nuclear energy were quite favourable, and military experimentation was only limited by funding and scientific expertise. In contrast, nuclear power today has become a hotly debated issue despite its importance in powering the economies of advanced nations today. For the military, the problem with nuclear power is not just about cost and safety, but also of the nature of its operating environment. Deploying volatile nuclear reactors into harm’s way on the battlefield, where their destruction and sabotage are likely, should give military planners cause to pause.

#### DOD energy not key to heg- new structural changes

Sarewitz et al ’12 (Daniel Sarewitz and Samuel Thernstrom Co-Directors, John Alic Technical Consultant, and Writer Travis Doom Research Assistant, A joint project of CSPO and CATF, We are grateful for their time and their insights. Fred Beach Postdoctoral Fellow, University of Texas at Austin William Bonvillian Washington Office Director, Massachusetts Institute of Technology Hanna Breetz PhD Candidate, Massachusetts Institute of Technology Kay Sullivan Faith Graduate Fellow, RAND Erica Fuchs Assistant Professor of Engineering and Public Policy, Carnegie Mellon University Ken Gabriel Deputy Director, Defense Advanced Research Project Agency Anthony Galasso Director of Advanced Integration Capabilities, Boeing Phantom Works David Garman Consultant Eugene Gholz Associate Professor of Public Affairs, University of Texas at Austin Sherri Goodman Senior Vice President, Center for Naval Analysis Kevin Hurst Assistant Director for Energy R&D, Office of Science and Technology Policy John Jennings Deputy Director for Innovation, Office of the Assistant Secretary of Defense, Operational Energy Todd Laporte Professor of Political Science, University of California Berkley George Lea Military Branch Chief, Engineering and Construction, U.S. Army Corps of Engineers Sasha Mackler Bipartisan Policy Center Jeffrey Marqusee Executive Director, SERDP and ESTCP, U.S. Department of Defense William McQuaid Liaison for DoD Energy Conservation Programs, Office of Management and Budget Srini Mirmira Commercialization, Advance Research Projects Agency-Energy Dorothy Robyn Deputy Under Secretary of Defense, Installations and Environment Richard Van Atta Institute for Defense Analyses Andrew Wiedlea Defense Threat Reduction Agency Aubrey Wigner Graduate Student, Arizona State University Project Staff and Affiliates Daniel Sarewitz Co-Director, Consortium for Science, Policy and Outcomes, Arizona State University Samuel Thernstrom Senior Climate Policy Advisor, Clean Air Task Force John Alic Consultant Travis Doom Program Specialist, Consortium for Science, Policy and Outcomes, Arizona State University Joseph Chaisson Research and Technical Director, Clean Air Task Force Armond Cohen Executive Director, Clean Air Task Force Nate Gorence Associate Director for Energy Innovation, Bipartisan Policy Center Suzanne Landtiser Graphic Designer, Fine Line Studio, “Energy Innovation At The Department Of Defense Assessing The Opportunities”, March 2012,

The Defense Industry and Energy Innovation Operational energy seems especially important and exciting right now, because the United States is at war—and even more than that, because the current wars happen to involve a type of fighting with troops deployed to isolated outposts far from their home bases, in an extreme geography that stresses the logistics system. But as the U.S. effort in Afghanistan draws down, energy consumption in operations will account for less of total energy consumption, meaning that operational energy innovations will have less effect on energy security. More important, operational energy innovations will be of less interest to the military customers, who are unlikely to emphasize planning for a repeat of such an extreme situation as the war in Afghanistan. Specific military organizations that have an interest in preparing to fight with a light footprint in austere conditions may well continue the operational energy emphasis of the past few years. The good news for advocates of military demand pull for energy innovation is that special operations forces are viewed as the heroes of the recent wars, making them politically popular. They also have their own budget lines that are less likely to be swallowed by more prosaic needs like paying for infrastructure at a time of declining defense budgets or by shifting strategic emphasis toward traditional high-intensity combat. While the conventional military’s attention moves to preparation against a rising near-peer competitor in China—a possible future, if not the only one, for American strategic planning—special operations may still want lightweight, powerful batteries and solar panels. Working with industry for defense-led energy innovation requires treading a fine line. Advocates need to understand the critical tasks facing specific military organizations, meaning that they have to live in the world of military jargon, strategic thinking, and budget politics. At the same time, the advocates need to be able to reach nontraditional suppliers who have no interest in military culture and are developing technologies that follow performance trajectories totally different from the established military systems. More likely, it will not be the advocates who develop the knowledge to bridge the two groups, their understandings of their critical tasks, and the ways they communicate and contract. It will be the prime contractors, if their military customers want them to respond to a demand for energy innovation.

#### Military SMR can’t provide reliable or efficient energy – creates tons of waste and risks attacks

Baker ’12 – Adjunct Junior Fellow @ AmericanSecurity Project, BA in Political Science (Matthew, “Do Small Modular Reactors Present a Serious Option for the Military’s Energy Needs?”, June 22, <http://americansecurityproject.org/blog/2012/do-small-modular-reactors-present-a-serious-option-for-the-militarys-energy-needs/>, CMR)

Unfortunately all the hype surrounding SMRs seems to have made the proponents of SMR technology oblivious to some of its huge flaws.¶ Firstly like large reactors, one of the biggest qualms that the public has to nuclear is problems associated with nuclear waste. A more decentralized production of nuclear waste inevitably resulting from an increase in SMRs production was not even discussed. The danger of transporting gas into some military bases in the Middle East is already extremely volatile; dangers of an attack on the transit of nuclear waste would be devastating.¶ Secondly, SMRs pose many of the same problems that regular nuclear facilities face, sometimes to a larger degree.

 Because SMRs are smaller than conventional reactors and can be installed underground, they can be more difficult to access should an emergency occur. There are also reports that because the upfront costs of nuclear reactors go up as surface area per kilowatt of capacity decreases, SMRs will in fact be more expensive than conventional reactors.¶ Thirdly, some supporters of SMR technology seem to have a skewed opinion of public perception toward nuclear energy. Commissioner of the U.S. Nuclear Regulatory Commission, William C. Ostendorff, didn’t seem to think that the recent Fukushima disaster would have any impact on the development on SMRs. Opinion polls suggest Americans are more likely to think that the costs of nuclear outweigh its benefits since the Fukushima disaster. For SMRs to be the philosopher’s stone of the military’s energy needs the public needs to be on board.¶ The DESC’s briefing did illustrate the hype that the nuclear community has surrounding SMRs, highlighting some pressing issues surrounding the military’s energy vulnerability. But proponents of SMRs need to be more realistic about the flaws associated with SMRs and realize that the negative impacts of nuclear technology are more costly than its benefits.

# 2NC

## Renewables

**2NC ov – warming**

**Warming outweighs – causes tipping points that collapse global biodiversity – that’s Speth – the aff locks in-extinction within five years**

**Bulletin of the Atomic Scientists ’12** (Science and Security Board, “Doomsday Clock moves to five minutes to midnight”, Jan 10, <http://www.thebulletin.org/content/media-center/announcements/2012/01/10/doomsday-clock-moves-to-five-minutes-to-midnight>, CMR)

In fact, the global community may be **near a point of no return** in efforts to prevent catastrophe from changes in Earth's atmosphere. The International Energy Agency projects that, unless societies begin building alternatives to carbon-emitting energy technologies over **the next five years**, the world is doomed to a warmer climate, harsher weather, droughts, famine, water scarcity, rising sea levels, loss of island nations, and increasing ocean acidification. Since fossil-fuel burning power plants and infrastructure built in 2012-2020 will produce energy — and emissions — for 40 to 50 years, the actions taken in the next few years will set us on a path that will be **impossible to redirect**. **Even if** policy leaders decide **in the future** to reduce reliance on carbon-emitting technologies, it will be **too late**.

**Only extinction scenario – outweighs nuclear war**

Deibel ‘7 [Terry L. Deibel, professor of IR @ National War College, 2007, Foreign Affairs Strategy, Conclusion: American Foreign Affairs Strategy Today, CMR]

Droughts, floods, and violent storms Consensus Disease and Illness 26% of GDP—Economy Thermohaline circulation collapse Runaway green house warming Positive Feedback, H2O vapor More true than Nuclear Winter Finally, there is one major existential threat to American security (as well as prosperity) of a nonviolent nature, which, though far in the future, demands urgent action. It is the threat of global warming to the stability of the climate upon which all earthly life depends. Scientists worldwide have been observing the gathering of this threat for three decades now, and what was once a mere possibility has passed through probability to near certainty. Indeed not one of more than 900 articles on climate change published in refereed scientific journals from 1993 to 2003 doubted that anthropogenic warming is occurring. “In legitimate scientific circles,” writes Elizabeth Kolbert, “it is virtually impossible to find evidence of disagreement over the fundamentals of global warming.” Evidence from a vast international scientific monitoring effort accumulates almost weekly, as this sample of newspaper reports shows: an international panel predicts “brutal droughts, floods and violent storms across the planet over the next century”; climate change could “literally alter ocean currents, wipe away huge portions of Alpine Snowcaps and aid the spread of cholera and malaria”; “glaciers in the Antarctic and in Greenland are melting much faster than expected, and…worldwide, plants are blooming several days earlier than a decade ago”; “rising sea temperatures have been accompanied by a significant global increase in the most destructive hurricanes”; “NASA scientists have concluded from direct temperature measurements that 2005 was the hottest year on record, with 1998 a close second”; “Earth’s warming climate is estimated to contribute to more than 150,000 deaths and 5 million illnesses each year” as disease spreads; “widespread bleaching from Texas to Trinidad…killed broad swaths of corals” due to a 2-degree rise in sea temperatures. “The world is slowly disintegrating,” concluded Inuit hunter Noah Metuq, who lives 30 miles from the Arctic Circle. “They call it climate change…but we just call it breaking up.” From the founding of the first cities some 6,000 years ago until the beginning of the industrial revolution, carbon dioxide levels in the atmosphere remained relatively constant at about 280 parts per million (ppm). At present they are accelerating toward 400 ppm, and by 2050 they will reach 500 ppm, about double pre-industrial levels. Unfortunately, atmospheric CO2 lasts about a century, so there is no way immediately to reduce levels, only to slow their increase, we are thus in for significant global warming; the only debate is how much and how serious the effects will be. As the newspaper stories quoted above show, we are already experiencing the effects of 1-2 degree warming in more violent storms, spread of disease, mass die offs of plants and animals, species extinction, and threatened inundation of low-lying countries like the Pacific nation of Kiribati and the Netherlands at a warming of 5 degrees or less the Greenland and West Antarctic ice sheets could disintegrate, leading to a sea level of rise of 20 feet that would cover North Carolina’s outer banks, swamp the southern third of Florida, and inundate Manhattan up to the middle of Greenwich Village. Another catastrophic effect would be the collapse of the Atlantic thermohaline circulation that keeps the winter weather in Europe far warmer than its latitude would otherwise allow. Economist William Cline once estimated the damage to the United States alone from moderate levels of warming at 1-6 percent of GDP annually; severe warming could cost 13-26 percent of GDP. But the most frightening scenario is runaway greenhouse warming, based on positive feedback from the buildup of water vapor in the atmosphere that is both caused by and causes hotter surface temperatures. Past ice age transitions, associated with only 5-10 degree changes in average global temperatures, took place in just decades, even though no one was then pouring ever-increasing amounts of carbon into the atmosphere. Faced with this specter, the best one can conclude is that “humankind’s continuing enhancement of the natural greenhouse effect is akin to playing Russian roulette with the earth’s climate and humanity’s life support system. At worst, says physics professor Marty Hoffert of New York University, “we’re just going to burn everything up; we’re going to heat the atmosphere to the temperature it was in the Cretaceous when there were crocodiles at the poles, and then everything will collapse.” During the Cold War, astronomer Carl Sagan popularized a theory of nuclear winter to describe how a thermonuclear war between the Untied States and the Soviet Union would not only destroy both countries but possible end life on this planet. Global warming is the post-Cold War era’s equivalent of nuclear winter at least as serious and considerably better supported scientifically. Over the long run it puts dangers form terrorism and traditional military challenges to shame. It is a threat not only to the security and prosperity to the United States, but potentially to the continued existence of life on this planet.

**That means we win regardless of probability**

Nick **Bostrom**, Professor in the Faculty of Philosophy & Oxford Martin School, Director of the Future of Humanity Institute, and Director of the Programme on the Impacts of Future Technology at the University of Oxford, recipient of the 2009 Eugene R. Gannon Award for the Continued Pursuit of Human Advancement, holds a Ph.D. in Philosophy from the London School of Economics, 20**11** (“The Concept of Existential Risk,” Draft of a Paper published on ExistentialRisk.com, Available Online at <http://www.existentialrisk.com/concept.html>, Accessed 07-04-2011)

Even if we use the most conservative of these estimates, which entirely ignores the possibility of space colonization and software minds, we find that the expected loss of an existential catastrophe is greater than the value of 1018 human lives. This implies that the expected value of reducing existential risk by a mere one millionth of one percentage point is at least ten times the value of a billion human lives. The more technologically comprehensive estimate of 1054 human-brain-emulation subjective life-years (or 1052 lives of ordinary length) makes the same point even more starkly. Even if we give this allegedly lower bound on the cumulative output potential of a technologically mature civilization a mere 1% chance of being correct, we find that the expected value of reducing existential risk by a mere one billionth of one billionth of one percentage point is worth a hundred billion times as much as a billion human lives. One might consequently argue that even the tiniest reduction of existential risk has an expected value greater than that of the definite provision of any “ordinary” good, such as the direct benefit of saving 1 billion lives. And, further, that the absolute value of the indirect effect of saving 1 billion lives on the total cumulative amount of existential risk—positive or negative—is almost certainly larger than the positive value of the direct benefit of such an action.

**Turns nuclear war**

Dyer 9 Gwynne, MA in Military History and PhD in Middle Eastern History former @ [Senior Lecturer](file:///C%3A%5Cwiki%5CSenior_Lecturer) in War Studies at the [Royal Military Academy Sandhurst](file:///C%3A%5Cwiki%5CRoyal_Military_Academy_Sandhurst), Climate Wars, CMR

THIS BOOK IS AN ATTEMPT, peering through a glass darkly, to understand the politics and the strategies of the potentially apocalyptic crisis that looks set to occupy most of the twenty­first century. There are now many books available that deal with the science of climate change and some that suggest pos­sible approaches to getting the problem under control, but there are few that venture very far into the grim detail of how real countries experiencing very different and, in some cases, overwhelming pressures as global warming proceeds, are likely to respond to the changes. Yet we all know that it's mostly politics, national and international, that will decide the outcomes. Two things in particular persuaded me that it was time to write this book. One was the realization that the first and most important impact of climate change on human civiliza­tion will be an acute and permanent crisis of food supply. Eating regularly is a non-negotiable activity, and countries that cannot feed their people are unlikely to be "reasonable" about it. Not all of them will be in what we used to call the "Third World" -the developing countries of Asia, Africa and Latin America. The other thing that finally got the donkey's attention was a dawning awareness that, in a number of the great pow­ers, climate change scenarios are already playing a large and increasing role in the military planning process. Rationally, you would expect this to be the case, because each country pays its professional military establishment to identify and counter "threats" to its security, but the implications of their scenarios are still alarming. There is a probability of wars, including even nuclear wars, if temperatures rise two to three degrees Celsius. Once that happens, all hope of international cooperation to curb emissions and stop the warming goes out the window.

**Err aff on probability – risks of major war are almost ZERO**

**Fettweis, ‘6** – National Security Decision Making Department, US Naval War College [Christopher, “A Revolution in International Relation Theory: Or, What If Mueller Is Right?” International Studies Review (2006) 8, 677–697]

The obsolescence-of-major-war argument is familiar enough to need little introduction (Mueller 1989, 1995, 2004; see also Rosecrance 1986, 1999; Ray 1989; Kaysen 1990; Van Evera 1990–1991; Kegley 1993; Jervis 2002; Mandelbaum 2002). In its most basic and common form, the thesis holds that a broad shift in attitudes toward warfare has occurred within the most powerful states of the international system, virtually removing the possibility for the kind of war that pits the strongest states against each other. Major wars, fought by the most powerful members of the international system, are, in Michael Mandelbaum's (1998/1999:20) words, "**somewhere between impossible and unlikely**."  The argument is founded upon a traditional liberal faith in the possibility of moral progress within the society of great powers, which has created for the first time "an almost universal sense that the deliberate launching of a war can no longer be justified" (Ray 1989:425; also Luard 1986, 1989). To use Francis Fukayama's (1992) phrase, it is the "autonomous power of ideas" that has brought major war to an end. Whereas past leaders were at times compelled by the masses to use force in the defense of the national honor, today popular pressures urge peaceful resolutions to disputes between industrialized states. This normative shift has all but removed warfare from the set of options before policymakers, making it a **highly unlikely outcome**. Mueller (1989:11) has referred to the abolition of slavery and dueling as precedents. "Dueling, a form of violence famed and fabled for centuries, is avoided not merely because it has ceased to seem 'necessary,' but because it has sunk from thought as a viable, conscious possibility. You can't fight a duel if the idea of doing so never occurs to you or your opponent." By extension, states cannot fight wars if doing so does not occur to them or to their opponent. **Major war has become**, in Mueller's words, "sub-rationally **unthinkable.**"  Obviously, the obsolescence-of-major-war argument is not without critics. First, and most basic, the literature is sometimes quite vague about what constitutes a "major war" and who exactly the "great powers" are. In Retreat from Doomsday, Mueller (1989) alternately describes his data set as consisting of "developed countries" (p. 4), the "first and second worlds" (p. 256), the "major and not-so-major countries" (p. 5), and the 44 wealthiest states (p. 252). Others refer to the great powers as those states with a certain minimum standard of living, especially those in Europe (Luard 1986:398); modern, "industrial societies" (Kaysen 1990); the "leading global powers" (Väyrynen 2006:13); or merely "the most powerful members of the international system" (Mandelbaum 1998/1999:21). What constitutes a "major" war is also often left unclear. Some analyses use arbitrary quantitative values (for example, 1,000 battle deaths); others study only world wars, those fought by the most powerful members of the international system, drawing on all their resources, with the potential to lead to outcomes of "revolutionary geopolitical consequences including the birth and death of regimes, the redrawing of borders, and the reordering of the hierarchy of sovereign states" (Mandelbaum 1998/1999:20).  Definitions are often the last refuge of academic scoundrels—many IR theories deal with potentially contradictory information by simply refining or redefining the data under consideration. Perhaps the best way to avoid this pitfall is to err on the side of inclusion, expanding the analysis as broadly as possible. While the obsolescence-of-major-war argument clearly covers the kind of catastrophic wars that Mandelbaum analyzes, any big war between industrialized, powerful states would render the proposition false. At its essence, like pornography, one knows major war when one sees it. Major powers will likely occasionally deem it in their interest to strike the minor, and at times small, states, especially those led by nondemocratic, unenlightened leaders. But societal unease at the continuation of small wars—such as those in Afghanistan and Iraq or between poor, weak states like Ethiopia and Eritrea—should be ameliorated by the knowledge that, for the first time in history, world war is exceedingly unlikely. Determining which states are great powers is slightly more complicated, but not by much. Two decades ago, Jack Levy (1983:10) noted that the importance of the concept of "great power" was not matched by anything approaching analytical precision in its use and the field has not progressed much since. Relevant states for this analysis are those with the potential to be great powers, whether that potential is realized or not. The choice not to devote a large portion of one's national resources toward territorial defense was not available to most states in other, bygone eras. If today's rich states can choose not to prepare for war without consequence, then the nature of the system may well have changed.  Broadly speaking, there is an indirect relationship between the relative level of development and the chances of being involved in a major war against a peer. In its most basic, inclusive, and falsifiable form, the obsolescence-of-major-war argument postulates that the most advanced countries—roughly speaking, those in the global north—are unlikely to fight one another ever again. Precise determination of which countries are in the "north" and which are not is less important than it may seem at first, since current versions of the argument do not restrict themselves to the great powers. As will be discussed below, if the logic behind the obsolescence-of-major-war argument is correct, **a drastic diminution of all kinds of war everywhere may be on the horizon**. It is important to note that this argument does not suggest that competition is coming to a conclusion, only that the means to compete have changed. Rivalry will continue; envy, hubris, and lust for power will likely never disappear. Rogues and outlaws will probably always plague humanity, but very rarely as leaders of powerful states, especially in the northern democracies. The Mueller argument merely holds that **war need not follow from any of this**, especially major wars. States can compete in nonviolent ways, addressing the logic of war with the grammar of commerce, to paraphrase Edward Luttwak (1990:19). The conflicts of the future may be fought in boardrooms rather than battlefields, using diplomacy, sanctions, and the methods of commerce rather than brute force.  One of the obvious strengths of the obsolescence-of-major-war argument is that it carries clear routes to falsification. It can be proven incorrect by virtually any big war in Western Europe, in the Pacific Rim, or in North America. If Japan attacks Australia, if the United States moves north, or if Germany rises again and makes another thrust at Paris and Moscow, Retreat from Doomsday will join The Great Illusion (Angell [1909] 1913) in the skeptical realist's list of utopian fantasies. Until that happens, however, scholars are left to explain one of the great anomalies in the history of the international system.  Most IR scholarship carries on as if such an anomaly simply does not exist. This is especially true of realists, whose theories typically leave little room for fundamental systemic change (Lebow 1994). "The game of politics does not change from age to age," argued a skeptical Colin Gray (1999:163), "let alone from decade to decade." Indeed, the most powerful counterargument to Mueller—and one that is ultimately unanswerable—is that this period of peace will be temporary and that someday these trends will be reversed. Neorealists traditionally contend that the anarchic structure of the system stacks the deck against long-term stability, which accounts for "war's dismal recurrence throughout the millennia," in the words of Kenneth Waltz (1989:44). Other scholars are skeptical about the explanatory power of ideas, at least as independent variables in models of state behavior (Mearsheimer 1994/1995; Brooks and Wohlforth 2000/2001; Copeland 2003).  However, one need not be convinced about the potential for ideas to transform international politics to believe that major war is extremely unlikely to recur. Mueller, Mandelbaum, Ray, and others may give primary credit for the end of major war to ideational evolution akin to that which made slavery and dueling obsolete, but others have interpreted the causal chain quite differently. Neoliberal institutionalists have long argued that complex economic interdependence can have a pacifying effect upon state behavior (Keohane and Nye 1977, 1987). Richard Rosecrance (1986, 1999) has contended that evolution in socio-economic organization has altered the shortest, most rational route to state prosperity in ways that make war unlikely. Finally, many others have argued that credit for great power peace can be given to the existence of nuclear weapons, which make aggression irrational (Jervis 1989; Kagan et al. 1999). With so many overlapping and mutually reinforcing explanations, at times the end of major war may seem to be overdetermined (Jervis 2002:8–9). For purposes of the present discussion, successful identification of the exact cause of this fundamental change in state behavior is probably not as important as belief in its existence. In other words, the outcome is far more important than the mechanism. The importance of Mueller's argument for the field of IR is ultimately not dependent upon why major war has become obsolete, only that it has.  Almost as significant, all these proposed explanations have one important point in common: they all imply that change will be permanent. Normative/ideational evolution is typically unidirectional—few would argue that it is likely, for instance, for slavery or dueling to return in this century. The complexity of economic interdependence is deepening as time goes on and going at a quicker pace. And, obviously, nuclear weapons cannot be uninvented and (at least at this point) no foolproof defense against their use seems to be on the horizon. The combination of forces that may have brought major war to an end seems to be unlikely to allow its return.  The twentieth century witnessed an unprecedented pace of evolution in all areas of human endeavor, from science and medicine to philosophy and religion. In such an atmosphere, it is not difficult to imagine that attitudes toward the venerable institution of war may also have experienced rapid evolution and that its obsolescence could become plausible, perhaps even probable, in spite of thousands of years of violent precedent. The **burden of proof** would seem to be on those who maintain that the "rules of the game" of international politics, including the rules of war, are the lone area of human interaction immune to fundamental evolution and that, due to these immutable and eternal rules, war will always be with us. Rather than ask how major war could have grown obsolete, perhaps scholars should ask why anyone should believe that it could not.

#### Nuclear war doesn’t cause extinction

Socol 11 Yehoshua Socol (Ph.D.), an inter-disciplinary physicist, is an expert in electro-optics, high-energy physics and applications, and material science and Moshe Yanovskiy, Jan 2, 2011, “Nuclear Proliferation and Democracy”, http://www.americanthinker.com/2011/01/nuclear\_proliferation\_and\_demo.html, CMR

Nuclear proliferation should no longer be treated as an unthinkable nightmare; it is likely to be the future reality. Nuclear weapons have been acquired not only by an extremely poor per capita but large country such as India, but also by even poorer and medium-sized nations such as Pakistan and North Korea. One could also mention South Africa, which successfully acquired a nuclear arsenal despite economic sanctions (the likes of which have not yet been imposed on Iran). It is widely believed that sanctions and rhetoric will not prevent Iran from acquiring nuclear weapons and that many countries, in the Middle East and beyond, will act accordingly (see, e.g., recent Heritage report). Nuclear Warfare -- Myths And Facts The direct consequences of the limited use of nuclear weapons -- especially low-yield devices most likely to be in the hands of non-state actors or irresponsible governments -- would probably not be great enough to bring about significant geopolitical upheavals. Casualties from a single 20-KT nuclear device are estimated [1] at about 25,000 fatalities with a similar number of injured, assuming a rather unfortunate scenario (the center of a large city, with minimal warning). Scaling the above toll to larger devices or to a larger number of devices is less than linear. For example, it has been estimated that it would take as many as eighty devices of 20-KT yield each to cause 300,000 civilian fatalities in German cities (a result actually achieved by Allied area attacks, or carpet-bombings, during the Second World War). A single 1-MT device used against Detroit has been estimated by U.S. Congress OTA to result in about 220,000 fatalities. It is anticipated that well-prepared civil defense measures, based on rather simple presently known techniques, would decrease these numbers by maybe an order of magnitude (as will be discussed later). There is little doubt that a nation determined to survive and with a strong sense of its own destiny would not succumb to such losses. It is often argued that the fallout effects of even the limited use of nuclear weapons would be worldwide and would last for generations. This is an exaggeration. The following facts speak for themselves. -- In Japan, as assessed by REFR, less than 1,000 excess cancer cases (i.e., above the natural occurrence) were recorded in over 100,000 survivors over the past sixty years -- compared with about 110,000 immediate fatalities in the two atomic bombings. No clinical or even sub-clinical effects were discovered in the survivors' offspring. -- In the Chernobyl area, as assessed by IAEA, only fifteen cancer deaths can be directly attributed to fallout radiation. No radiation-related increase in congenital formations was recorded. Nuclear Conflict -- Possible Scenarios With reference to a possible regional nuclear conflict between a rogue state and a democratic one, the no-winner (mutual assured destruction) scenario is probably false. An analysis by Anthony Cordesman, et al. regarding a possible Israel-Iran nuclear conflict estimated that while Israel might survive an Iranian nuclear blow, Iran would certainly not survive as an organized society. Even though the projected casualties cited in that study seem to us overstated, especially as regards Israel, the conclusion rings true. Due to the extreme high intensity ("above-conventional") of nuclear conflict, it is nearly certain that such a war, no matter its outcome, would not last for years**,** as we have become accustomed to in current low-intensity conflicts. Rather, we should anticipate a new geo-political reality: the emergence of clear winners and losers within several days, or at most weeks after the initial outbreak of hostilities. This latter reality will most probably contain fewer nuclear-possessing states than the former.

#### Nuke war doesn’t turn warming

Seitz 11, Harvard University Center for International Affairs visiting scholar, (Russell, “Nuclear winter was and is debatable,” Nature, 7-7-11, Vol 475, pg37, accessed 9-27-11, CMR)

Alan Robock's contention that there has been no real scientific debate about the 'nuclear winter' concept is itself **debatable** (Nature 473, 275–276; 2011). This potential climate disaster, popularized in Science in 1983, rested on the output of a one-dimensional model that was later shown to overestimate the smoke a nuclear holocaust might engender. More refined estimates, combined with advanced three-dimensional models (see http://go.nature.com.libproxy.utdallas.edu/kss8te), have dramatically reduced the extent and severity of the projected cooling. Despite this, Carl Sagan, who co-authored the 1983 Science paper, went so far as to posit “the extinction of Homo sapiens” (C. Sagan Foreign Affairs 63, 75–77; 1984). Some regarded this apocalyptic prediction as an exercise inmythology. George Rathjens of the Massachusetts Institute of Technology protested: “Nuclear winter is the worstexample of themisrepresentation of science **to the public** in my memory,” (see http://go.nature.com.libproxy.utdallas.edu/yujz84) and climatologist Kerry Emanuel observed that the subject had “become notorious for its lack of scientific integrity**”** (Nature 319, 259; 1986). Robock's single-digit fall in temperature is at odds with the subzero (about −25 °C) continental cooling originally projected for a wide spectrum of nuclear wars. Whereas Sagan predicted darkness at noon from a US–Soviet nuclear conflict, Robock projects global sunlight that is several orders of magnitude brighter for a Pakistan–India conflict — literally the difference between night and day. Since 1983, the projected worst-case cooling has fallen from a Siberian deep freeze spanning 11,000 degree-days Celsius (a measure of the severity of winters) to numbers so unseasonably small as to call the very term 'nuclear winter' into question.

#### US clean tech is key to solve hegemony, resource conflicts, and climate change.

Klarevas 9 – Professor of Global Affairs (Louis, Professor at the Center for Global Affairs – New York University, “Securing American Primacy While Tackling Climate Change: Toward a National Strategy of Greengemony”, Huffington Post, 12-15, <http://www.huffingtonpost.com/louis-klarevas/securing-american-primacy_b_393223.html>, CMR)

By not addressing climate change more aggressively and creatively, the United States is squandering an opportunity to secure its global primacy for the next few generations to come. To do this, though, the U.S. must rely on innovation to help the world escape the coming environmental meltdown. Developing the key technologies that will save the planet from global warming will allow the U.S. to outmaneuver potential great power rivals seeking to replace it as the international system's hegemon. But the greening of American strategy must occur soon.¶ The U.S., however, seems to be stuck in time, unable to move beyond oil-centric geo-politics in any meaningful way.¶ Often, the gridlock is portrayed as a partisan difference, with Republicans resisting action and Democrats pleading for action.¶ This, though, is an unfair characterization as there are numerous proactive Republicans and quite a few reticent Democrats.¶ The real divide is instead one between realists and liberals.¶ Students of realpolitik, which still heavily guides American foreign policy, largely discount environmental issues as they are not seen as advancing national interests in a way that generates relative power advantages vis-à-vis the other major powers in the system: Russia, China, Japan, India, and the European Union.¶ Liberals, on the other hand, have recognized that global warming might very well become the greatest challenge ever faced by mankind. As such, their thinking often eschews narrowly defined national interests for the greater global good. This, though, ruffles elected officials whose sworn obligation is, above all, to protect and promote American national interests.¶ What both sides need to understand is that by becoming a lean, mean, green fighting machine, the U.S. can actually bring together liberals and realists to advance a collective interest which benefits every nation, while at the same time, securing America's global primacy well into the future.¶ To do so, the U.S. must re-invent itself as not just your traditional hegemon, but as history's first ever green hegemon.¶ Hegemons are countries that dominate the international system - bailing out other countries in times of global crisis, establishing and maintaining the most important international institutions, and covering the costs that result from free-riding and cheating global obligations. Since 1945, that role has been the purview of the United States.¶ Immediately after World War II, Europe and Asia laid in ruin, the global economy required resuscitation, the countries of the free world needed security guarantees, and the entire system longed for a multilateral forum where global concerns could be addressed. The U.S., emerging the least scathed by the systemic crisis of fascism's rise, stepped up to the challenge and established the postwar (and current) liberal order.¶ But don't let the world "liberal" fool you. While many nations benefited from America's new-found hegemony, the U.S. was driven largely by "realist" selfish national interests. The liberal order first and foremost benefited the U.S.¶ With the U.S. becoming bogged down in places like Afghanistan and Iraq, running a record national debt, and failing to shore up the dollar, the future of American hegemony now seems to be facing a serious contest: potential rivals - acting like sharks smelling blood in the water - wish to challenge the U.S. on a variety of fronts. This has led numerous commentators to forecast the U.S.'s imminent fall from grace.¶ Not all hope is lost however.¶ With the impending systemic crisis of global warming on the horizon, the U.S. again finds itself in a position to address a transnational problem in a way that will benefit both the international community collectively and the U.S. selfishly.¶ The current problem is two-fold. First, the competition for oil is fueling animosities between the major powers. The geopolitics of oil has already emboldened Russia in its 'near abroad' and China in far-off places like Africa and Latin America. As oil is a limited natural resource, a nasty zero-sum contest could be looming on the horizon for the U.S. and its major power rivals - a contest which threatens American primacy and global stability.¶ Second, converting fossil fuels like oil to run national economies is producing irreversible harm in the form of carbon dioxide emissions. So long as the global economy remains oil-dependent, greenhouse gases will continue to rise. Experts are predicting as much as a 60% increase in carbon dioxide emissions in the next twenty-five years. That likely means more devastating water shortages, droughts, forest fires, floods, and storms.¶ In other words, if global competition for access to energy resources does not undermine international security, global warming will. And in either case, oil will be a culprit for the instability.¶ Oil arguably has been the most precious energy resource of the last half-century. But "black gold" is so 20th century. The key resource for this century will be green gold - clean, environmentally-friendly energy like wind, solar, and hydrogen power. Climate change leaves no alternative. And the sooner we realize this, the better off we will be.¶ What Washington must do in order to avoid the traps of petropolitics is to convert the U.S. into the world's first-ever green hegemon.¶ For starters, the federal government must drastically increase investment in energy and environmental research and development (E&E R&D). This will require a serious sacrifice, committing upwards of $40 billion annually to E&E R&D - a far cry from the few billion dollars currently being spent.¶ By promoting a new national project, the U.S. could develop new technologies that will assure it does not drown in a pool of oil. Some solutions are already well known, such as raising fuel standards for automobiles; improving public transportation networks; and expanding nuclear and wind power sources. Others, however, have not progressed much beyond the drawing board: batteries that can store massive amounts of solar (and possibly even wind) power; efficient and cost-effective photovoltaic cells, crop-fuels, and hydrogen-based fuels; and even fusion.¶ Such innovations will not only provide alternatives to oil, they will also give the U.S. an edge in the global competition for hegemony. If the U.S. is able to produce technologies that allow modern, globalized societies to escape the oil trap, those nations will eventually have no choice but to adopt such technologies. And this will give the U.S. a tremendous economic boom, while simultaneously providing it with means of leverage that can be employed to keep potential foes in check.

### Link

**Loudermilk specific**

**Yes commercialization**

**Marqusee 12** Jeffrey, Executive director at the Strategic Environmental Research and Development Program at the DOD, “Military Installations and Energy Technology Innovations”, Energy Innovation at the Department of Defense: Assessing the Opportunities, March, PDF online

Conclusion¶ **DoD has been an enormous engine of innovation in America**, driving the development of both defense technologies and, ultimately, **very large sectors of commercial activity**. In addition to its traditional focus on conventional military hardware, there is now great interest in applying those capabilities to energy innovation, an area of activity that can have enormous benefits both to the United States military and to the country as a whole. In thinking about this question, it is worth considering the two different (but complementary) models of innovation at DoD: the well-known Defense Advanced Research Projects Agency (DARPA) model, which has produced extraordinary technological breakthroughs (at great cost) that have allowed America to dominate the battlefield; and the more recent SERDP and ESTCP model, which focuses less on cost-insensitive breakthroughs and more on developing and demonstrating cost-effective technologies that can enhance the effectiveness of the overall fighting force. The SERDP and ESTCP’s test bed cost-consciousness and ability to work across the spectrum from basic to applied research and demonstration **makes it uniquely effective at assisting innovative technologies across the Valley of Death and into commercial viability**. While the extraordinary “leap-ahead” innovations of DARPA more easily capture the imagination, the ability of the ESTCP’s test bed program to improve the overall energy efficiency of the United States military—and the civilian economy—should not be overlooked. ESTCP offers both the military and the nation an effective approach that can leverage the large investments in energy technology developments at DOE and the private sector, and result in a real energy revolution.

**More ev**

**Andres and Breetz 11** Richard B, Professor of National Security Strategy at the National War College and a Senior Fellow and Energy and Environmental Security and Policy Chair in the Center for Strategic Research, Institute for National Strategic Studies, at the National Defense University and Hanna L, doctoral candidate in the Department of Political Science at The Massachusetts Institute of Technology, February, "Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications", www.ndu.edu/press/lib/pdf/StrForum/SF-262.pdf

If DOD wants to ensure that its preferred reactors are developed and available in the future, it should take a leadership role now. Taking a first mover role does not necessarily mean that DOD would be “picking a winner” among small reactors, as the market will probably pursue multiple types of small reactors. Nevertheless, DOD leadership would likely have a **profound** effect on the industry’s timeline and trajectory.¶ Domestic Nuclear Expertise. From the perspective of larger national security issues, if DOD does not catalyze the small reactor industry, there is a risk that expertise in small reactors could become dominated by foreign companies. A 2008 Defense Intelligence Agency report warned that the United States will become totally dependent on foreign governments for future commercial nuclear power unless the military acts as the prime mover to reinvigorate this critical energy technology with small, distributed power reactors.38 Several of the most prominent small reactor concepts rely on technologies perfected at Federally funded laboratories and research programs, including the Hyperion Power Module (Los Alamos National Laboratory), NuScale (DOE-sponsored research at Oregon State University), IRIS (initiated as a DOE-sponsored project), Small and Transportable Reactor (Lawrence Livermore National Laboratory), and Small, Sealed, Transportable, Autonomous Reactor (developed by a team including the Argonne, Lawrence Livermore, and Los Alamos National Laboratories). However, there are scores of competing designs under development from over a dozen countries. If DOD does not act early to support the U.S. small reactor industry, there is a chance that the industry could be dominated by foreign companies.¶ Along with other negative consequences, the decline of the U.S. nuclear industry decreases the NRC’s influence on the technology that supplies the world’s rapidly expanding demand for nuclear energy. Unless U.S. companies begin to retake global market share, in coming decades France, China, South Korea, and Russia will dictate standards on nuclear reactor reliability, performance, and proliferation resistance.

**A2 Gas**

#### Oil and gas not inevitable – most qualified and recent studies prove\*\*\* – only a question of social support.

\*\*\*Cites an NRC study from last week and Stanford engineering study from days ago

Rosenthal 3-23

(Elisabeth, “Life After Oil and Gas”, NYTimes, <http://www.nytimes.com/2013/03/24/sunday-review/life-after-oil-and-gas.html?pagewanted=all&_r=0>, DZ)

This mantra, repeated on TV ads and in political debates, is punctuated with a tinge of inevitability and regret. But, increasingly, scientific research and the experience of other countries should prompt us to ask: To what extent will we really “need” fossil fuel in the years to come? To what extent is it a choice?¶ As renewable energy gets cheaper and machines and buildings become more energy efficient, a number of countries that two decades ago ran on a fuel mix much like America’s are successfully dialing down their fossil fuel habits. Thirteen countries got more than 30 percent of their electricity from renewable energy in 2011, according to the Paris-based International Energy Agency, and many are aiming still higher.¶ Could we? Should we?¶ A National Research Council report released last week concluded that the United States could halve by 2030 the oil used in cars and trucks compared with 2005 levels by improving the efficiency of gasoline-powered vehicles and by relying more on cars that use alternative power sources, like electric batteries and biofuels.¶ Just days earlier a team of Stanford engineers published a proposal showing how New York State — not windy like the Great Plains, nor sunny like Arizona — could easily produce the power it needs from wind, solar and water power by 2030. In fact there was so much potential power, the researchers found, that renewable power could also fuel our cars.¶ “It’s absolutely not true that we need natural gas, coal or oil — we think it’s a myth,” said Mark Z. Jacobson, a professor of civil and environmental engineering and the main author of the study, published in the journal Energy Policy. “You could power America with renewables from a technical and economic standpoint. The biggest obstacles are social and political — what you need is the will to do it.”

#### Clean tech leadership is high now—the industry is increasing now and the US is the leader in global investment—that’s Mitchell

#### Yes competitive – capacity growing in wind and solar – capital costs declining – fluctuating fuel costs close the gap with conventional tech.

Palaia 3-28

(Jeremy, Global Information Inc., PR Newswire, “Cost of Renewable Power Generation Increasing Competitive, Market Research Perspectives and Recommended Conferences”, DZ)

FARMINGTON, Conn., March 28, 2013 /PRNewswire-iReach/ -- Renewable power generation is one the most crucial ways of achieving the goal of sustainable development for all countries. Significant capacity additions are being witnessed annually. In 2012, 772.3 Gigawatts (GW) of renewable capacity was installed in 2011 across the world. Of this capacity, wind and solar PV (Photovoltaic) are the major renewable sources of energy and account for 49.3% of the cumulative renewable power installation in the world. According to an upcoming report, "Cost of Power Generation", wind is the largest renewable source and accounts for 36.8% of global renewable capacity. Between 2005 and 2012, cumulative installed capacity of wind power rose from 59.8 GW to 283.9 GW. The future prospects for the wind energy industry appear to be good, largely due to strong government support. By 2020, the wind power cumulative installed capacity is expected to reach 455.8 GW. Meanwhile, global solar PV installed capacity will continue to grow at a CAGR of 15% during the 2013–2020 forecast period to reach 331.2 GW by 2020.¶ (Photo: http://photos.prnewswire.com/prnh/20130328/CG85261)¶ The capital costs of renewable energy generation technologies such as solar PV and solar thermal are currently higher than those of conventional energy generation technologies. However, the capital costs of these renewable energy technologies have been declining over the last four to five years. The major drivers driving down the cost of these technologies are their technological improvements and mass deployments. Additionally, increasing costs during long-term construction and fluctuating fuel costs for conventional power generation are reducing the gap between the electricity costs of these two technologies. These patterns indicate that the Levelized Cost of Energy (LCOE) of renewable energy technologies is becoming competitive with the LCOE of conventional technologies.

**A2 NP Solves**

#### The warming debate is all about the tipping point and the speed in which renewables can solve – nuke power will not come online for 10-15 years – that gap allows way too much carbon into the air. The plan forces a trade-off with renewable tech that can come online faster to solve the tipping point – that’s Carbon Control News

#### And, here is comparative evidence – nuclear power cannot solve prior to the tipping point – Renewables can

**Aurilio et al**, DC Environment America Director**, 11**

(Anna e-, Robert Sargent, Energy Program Director for Environment America, December 6, 2011, “Nuclear Power Will Set Back Race Against Global Warming, New Report Shows”, http://www.environmentamerica.org/news/ame/nuclear-power-will-set-back-race-against-global-warming-new-report-shows, CMR)

Washington, DC- Far from a solution to global warming, nuclear power will actually set America back in the race to reduce pollution, according to a new report by Environment America. Environment America, the Sierra Club and a national energy expert called on states and Congress to focus on energy efficiency and renewable energy instead of nuclear power as the solution to global warming. ¶ “When it comes to global warming, time and money are of the essence and nuclear power will fail America on both accounts,” said Anna Aurilio, Washington DC Office Director of Environment America. “With government dollars more precious than ever, nuclear power is a foolish investment that will set us back in the race against global warming,” she added.¶ Environment America’s new report released today, Generating Failure: How Building Nuclear Power Plants Would Set America Back in the Race Against Global Warming (click here for report) analyzes the role, under a best-case scenario, that nuclear power could play in reducing global warming pollution. Some key findings of the report include:¶ To avoid the most catastrophic impacts of global warming, America must cut power plant emissions roughly in half over the next 10 years. No new reactors are now under construction in the United States, and building a single reactor could take a decade or longer. As a result, it is quite possible that nuclear power could deliver no progress in the critical next decade, despite spending billions on reactor construction. ¶ Even if the nuclear industry somehow managed to build 100 new nuclear reactors by 2030, nuclear power could reduce total U.S. emissions of global warming pollution over the next 20 years by only 12 percent. As a result, America would burn through its 40-year electric sector carbon budget - the limit on carbon emissions determined by scientists to be necessary to stave off the worst impacts of climate change - in just 15 years. ¶ In contrast, energy efficiency and renewable energy can immediately reduce global warming pollution. Energy efficiency programs are already cutting electricity consumption by 1-2 percent annually in leading states, and the U.S. wind industry is already building the equivalent of three nuclear reactors per year in wind farms. America has vast potential to do more. ¶ Building 100 new reactors would require an up-front investment on the order of $600 billion dollars – money which could cut at least twice as much carbon pollution by 2030 if invested in clean energy. Taking into account the ongoing costs of running the nuclear plants, clean energy could deliver as much as 5 times more pollution-cutting progress per dollar overall.¶ Nuclear power is not necessary to provide clean, carbon-free electricity for the long haul. The need for base-load power is exaggerated and small-scale clean energy solutions can actually enhance the reliability of the electric grid. ¶ “Nuclear energy remains as flawed an idea today as it was in the 1980’s -- the last time it was rejected by the American public,” said Dave Hamilton, Director of Energy Programs at the Sierra Club. “Today we have cleaner, cheaper, faster solutions that we should be investing in before we seriously consider reviving the nuclear dinosaur,” he added.¶ To address global warming, state and federal policy makers should focus on improving energy efficiency and generating electricity from clean sources that never run out – such as wind, solar, biomass and geothermal power, according to Environment America and the coalition groups that attended today’s event. ¶ “Every new nuclear power plant built would be a step backwards when it comes to solving global warming.” said Aurilio. “Clean energy solutions like energy efficiency and renewable energy sources such as wind and solar power are far more effective than nuclear power in both cutting global warming pollution and saving consumers’ money,” she added.¶ “New nuclear power investments would actually worsen climate change because the money spent on nuclear reactors would not be available for solutions that fight it faster and at lower cost,” said Peter Bradford, a former U.S. Nuclear Regulatory Commissioner. “Counting on new nuclear reactors as a climate change solution is no more sensible than counting on an un-built dam to create a lake to fight a nearby forest fire."

#### Nuke power cannot come online fast enough – plan diverts investment in renewables

Madsen et al 2009 Travis Madsen (Analyst at the Frontier Group) Tony Dutzik (Analyst at the Frontier Group) Bernadette Del Chiaro (Analyst at the Environment America Research & Policy Center) and Rob Sargent (Analyst at the Environment America Research & Policy Center) November 2009 “Generating Failure¶ How Building Nuclear Power Plants Would¶ Set America Back in the Race Against Global Warming”, Environment America Research & Policy Center, http://cdn.publicinterestnetwork.org/assets/3962c378b66c4552624d09cbd8ebba02/Generating-Failure---Environment-America---Web.pdf

The damaging impacts of warming – from the ¶ acidification of the world’s oceans to melting ¶ glaciers and rising sea levels – are happening even ¶ faster than the most eye-opening predictions ¶ made by the United Nations’ Intergovernmental ¶ Panel on Climate Change just two years ago.¶ Scientists are becoming increasingly concerned ¶ that critical thresholds are a matter of years or a ¶ few decades away – beyond which lay dramatic ¶ and irreversible changes to our world and our ¶ way of life.¶ Given the pollution that humans have already ¶ produced, some impacts, such as the melting of ¶ mountain glaciers and the resulting disruption ¶ of water supplies, will be unavoidable and ¶ irreversible.¶ However, with immediate, swift and ¶ decisive action at all levels of government – local, ¶ state, national and international – we still have a ¶ chance to avoid many of the most catastrophic ¶ impacts of global warming.¶ Given the scale of the threat, we should put every ¶ possible solution on the table, except for the status ¶ quo. We should carefully consider all sources of ¶ carbon-free energy – even nuclear power – to ¶ make sure that we choose the approach most ¶ likely to deliver success.¶ The nuclear industry has worked tirelessly over ¶ the last decade to position itself as a solution to ¶ global warming.¶ On the surface, the case looks ¶ reasonable. Nuclear power is capable of producing ¶ large amounts of electricity while emitting little ¶ to none of the heat-trapping gases that cause ¶ global warming.¶ Nuclear power advocates have ¶ coalesced around a vision of building 100 new ¶ reactors in the United States by 2030, doubling ¶ the current fleet of reactors and moving America’s ¶ economy away from its dependence on polluting ¶ fossil fuels.¶ This report takes a closer look at how new ¶ nuclear power could contribute to the fight ¶ against global warming. The report focuses on ¶ the need for solutions that deliver rapid and ¶ substantial progress in reducing America’s ¶ emissions of global warming pollution within ¶ the next 10 to 20 years; cut pollution in a costeffective way compared to other strategies; and ¶ maintain reliable electricity service.¶ By these measures, nuclear power simply isn’t ¶ up to the job. Putting aside the unresolved ¶ problem of how to safely dispose of nuclear ¶ waste, the environmental impacts of mining and ¶ processing uranium, the risk of nuclear weapons ¶ proliferation, and the potential consequences of ¶ an accident or terrorist attack at a nuclear power ¶ plant, the nuclear industry simply cannot build ¶ new reactors fast enough to deliver the progress ¶ we need on a time scale that will make enough of ¶ a difference. Moreover, new nuclear reactors are ¶ far more expensive than other forms of emissionfree electricity. Investing in a new generation of ¶ nuclear reactors would actually delay needed ¶ progress and divert critical investment dollars ¶ away from better solutions.¶ Despite billions in government subsidies made ¶ available through the Energy Policy Act of ¶ 2005, and a streamlined permitting process at ¶ the Nuclear Regulatory Commission, no new ¶ nuclear reactors are yet under construction. ¶ Looking at the state of the industry in 2009, ¶ nuclear industry experts at the Massachusett Institute of Technology warn that without more ¶ government action to support the technology, ¶ “nuclear power will diminish as a practical and ¶ timely option for” reducing the odds of catastrophic ¶ global warming.¶ 8¶ This report concludes that government action to ¶ address global warming would be better focused on ¶ the wide range of other technologies that can deliver ¶ emission reductions more quickly and cheaply ¶ than nuclear power while also providing reliable ¶ electricity service. Despite decades of generous ¶ federal subsidies to the nuclear industry, nuclear ¶ power is not now ready to address the challenge of ¶ global warming – especially on the short timeline ¶ required for meaningful action. Piling additional ¶ subsidies or policy preferences upon the previous ¶ largesse extended toward the nuclear industry would ¶ only serve as a dangerous distraction in the fight to ¶ prevent the worst impacts of global warming.

### A2 Too Late

#### Not too late – every reduction key

Nuccitelli 12

[Dana, is an environmental scientist at a private environmental consulting firm in the Sacramento, California area. He has a Bachelor's Degree in astrophysics from the University of California at Berkeley, and a Master's Degree in physics from the University of California at Davis. He has been researching climate science, economics, and solutions as a hobby since 2006, and has contributed to Skeptical Science since September, 2010, <http://www.skepticalscience.com/realistically-what-might-future-climate-look-like.html>, HM]

We're not yet committed to surpassing 2°C global warming, but as Watson noted, we are quickly running out of time to realistically give ourselves a chance to stay below that 'danger limit'. However, 2°C is not a do-or-die threshold. Every bit of CO2 emissions we can reduce means that much avoided future warming, which means that much avoided climate change impacts. As Lonnie Thompson noted, the more global warming we manage to mitigate, the less adaption and suffering we will be forced to cope with in the future. Realistically, based on the current political climate (which we will explore in another post next week), limiting global warming to 2°C is probably the best we can do. However, there is a big difference between 2°C and 3°C, between 3°C and 4°C, and anything greater than 4°C can probably accurately be described as catastrophic, since various tipping points are expected to be triggered at this level. Right now, we are on track for the catastrophic consequences (widespread coral mortality, mass extinctions, hundreds of millions of people adversely impacted by droughts, floods, heat waves, etc.). But we're not stuck on that track just yet, and we need to move ourselves as far off of it as possible by reducing our greenhouse gas emissions as soon and as much as possible. There are of course many people who believe that the planet will not warm as much, or that the impacts of the associated climate change will be as bad as the body of scientific evidence suggests. That is certainly a possiblity, and we very much hope that their optimistic view is correct. However, what we have presented here is the best summary of scientific evidence available, and it paints a very bleak picture if we fail to rapidly reduce our greenhouse gas emissions. If we continue forward on our current path, catastrophe is not just a possible outcome, it is the most probable outcome. And an intelligent risk management approach would involve taking steps to prevent a catastrophic scenario if it were a mere possibility, let alone the most probable outcome. This is especially true since the most important component of the solution - carbon pricing - can be implemented at a relatively low cost, and a far lower cost than trying to adapt to the climate change consequences we have discussed here (Figure 4).

## Solvency

### SMRs Fail

#### Their solvency claims are false industry hype – SMRs won’t be operational and will fail.

Nexon 3/29/13 Prof. Georgetown Dan Nexon has held fellowships at Stanford University's Center for International Security and Cooperation and at the Ohio State University's Mershon Center for International Studies. During 2009-2010 he worked in the U.S. Department of Defense as a Council on Foreign Relations International Affairs Fellow. Professor Nexon specializes in the comparative-historical analysis of international politics, international-relations theory, and international security. His current research focuses on statecraft and instruments of power politics, particularly in the context of unequal inter-state relations. <http://www.whiteoliphaunt.com/duckofminerva/2013/03/small-modular-reactors-and-us-military-bases.html>

The main argument for the Department of Defense (DoD) developing small modular reactors (SMRs) is straightforward. US military bases, whether at home or overseas, are dependent upon civilian power grids. Forward operating bases–such as those that play a critical role in Afghanistan–are especially vulnerable to disruption as long as they rely on liquid-fuel generators to supply electricity. All three categories of bases are therefore at risk to various forms of interdiction–ranging from near-future cyber attacks to well-aimed mortar attacks. Advocates further maintain (PDF ) that no foreseeable developments in renewables will prove adequate to resolve these vulnerabilities. SMRs are supposed to be safe and reliable : “The entire reactor — the core, the cooling system, everything — is self-contained in this rocket-shaped steel cylinder. The industry says that makes it safer. And the reactors will be small enough to build in a factory and ship on trucks, like prefabricated houses. ” Because they use low-enriched uranium (LEU), they don’t pose a proliferation risk. To begin with, we’re in the very early stages of SMRs. The technology might work as advertised, but it would be a mistake to assume that what goes into mass production will live up to current hype. There’s a good chance that they’ll face significant operational problems, particularly in the early generations; many experts point out that SMRs will likely face similar safety and waste-disposal challenges as standard nuclear reactors (PDF ). They also make good targets for insurgents and terrorists. Recall that last year protestors snuck into the Y-12 facility at Oak Ridge, prompting assurances of tightened security at tactical-nuclear storage facilities in Europe . As Matthew Baker argues: … oneof the biggest qualms that the public has to nuclear is problems associated with nuclear waste. A more decentralized production of nuclear waste inevitably resulting from an increase in SMRs production was not even discussed. The danger of transporting gas into some military bases in the Middle East is already extremely volatile; dangers of an attack on the transit of nuclear waste would be devastating. Indeed, advocates tend to gloss over some of these issues, or assume that future technological ingenuity will resolve them.

## Grid

### Squo Solves

#### Status quo solves grid cyber vulnerability

Paul Clark 12, MA Candidate, Intelligence/Terrorism Studies, American Military University; Senior Analyst, Chenega Federal Systems, 4/28/12, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack,” http://blog.havagan.com/wp-content/uploads/2012/05/The-Risk-of-Disruption-or-Destruction-of-Critical-U.S.-Infrastructure-by-an-Offensive-Cyber-Attack.pdf

An attack against the electrical grid is a reasonable threat scenario since power systems are "a high priority target for military and insurgents" and there has been a trend towards utilizing commercial software and integrating utilities into the public Internet that has "increased vulnerability across the board" (Lewis 2010). Yet the increased vulnerabilities are mitigated by an increased detection and deterrent capability that has been "honed over many years of practical application" now that power systems are using standard, rather than proprietary and specialized, applications and components (Leita and Dacier 2012). The security of the electrical grid is also enhanced by increased awareness after a smart-grid hacking demonstration in 2009 and the identification of the Stuxnet malware in 2010: as a result the public and private sector are working together in an "unprecedented effort" to establish robust security guidelines and cyber security measures (Gohn and Wheelock 2010).

#### Microgrids solve DOD vulnerability

Pike Research 11, market research and consulting firm that provides in-depth analysis of global clean technology markets, 9/16/’11

(http://www.pikeresearch.com/newsroom/military-microgrid-capacity-to-experience-more-than-700-growth-by-2017)

Military Microgrid Capacity to Experience More than 700% Growth by 2017 September 16, 2011 The United States Department of Defense (DOD) is the single largest consumer of petroleum in the world. U.S. military operations are also the largest consumer of all forms of energy globally. Microgrids, which enable distributed energy generation at a localized scale including the ability to “island”themselves from larger utility grids, can shrink the amount of fossil fuels consumed to create electricity by networking generators as a system to maximize efficiency. Microgrids enable military bases – both stationary and tactical – to sustain operations no matter what is happening on the larger utility grid or in the theater of war. According to a new report from Pike Research, the capacity of military microgrids will grow at a rate of 739% between 2011 and 2017, increasing from 38 megawatts (MW) to 316 MW during that period, under a baseline forecast scenario. The cleantech market intelligence firm expects that, under a more aggressive adoption scenario, stationary and mobile military microgrid capacity could reach as high as 817 MW during the same timeframe. “The military’s primary concern is disruption of service from utility transmission and distribution lines,” says senior analyst Peter Asmus. “The lack of control and ownership of these lines – and the uneven quality of power service regionally throughout the United States – has prompted the DOD to reexamine the existing electricity service delivery model. This analysis has led the DOD to the inevitable conclusion that the best wayto bolster its ability to secure power may well be through microgrid technology it can own and control.” Asmus adds that, as awareness about the electrical grid’s vulnerability to terrorist attacks has increased in recent times, the U.S. military has become one of the strongest proponents of microgrids, which offer the ultimate secure power supply for fixed base mobile operations. Manyarmy, navy, air force, and other related bases and offices already have vintage microgrids in place. What is new, says Asmus, is that these facilities are looking to envelopentire bases with microgrids and integrate distributed energy generation on-site. These resources, when capable of safe islanding from the surrounding grid, offer the ultimate security since fuel never runs out with renewable energy resources such as solar or wind. The opportunity to help develop these microgrids has attracted a number of powerful technology companies including Lockheed Martin, GE, Honeywell, Boeing, and Eaton.

#### Nuclear primacy solves any perceived loss of power

Campbell Craig (Professor of International Relations at the University of Southampton) 2009 Review of International Studies, “American power preponderance and the nuclear revolution,” 35, 27–44,

As Keir Lieber and Daryl Press have suggested, the US may be on the verge of acquiring a first-strike nuclear capability, which, combined with an effective system of anti-ballistic missile defence, could allow the US to destroy a rival’s nuclear capabilities and intercept any remaining retaliatory missiles before they hit American cities. While this possibility clearly reduces the likelihood of other states seeking to match American power with the aim of fighting and winning a nuclear war, and, if their argument becomes widely accepted, could lead American policy-makers to reject the logic of the nuclear revolution and consider pre-emptive nuclear strikes against large nuclear rivals, it clearly is less germane to the question of small-state deterrence.33 Lieber and Press contend that the US may have the capability to destroy the entire nuclear arsenal of another large nuclear state lest that state use it on America first for the purposes of winning a great war. That, as they say, would mean the end of Mutual Assured Destruction as it existed during the Cold War. However, Washington would have much less reason to use its new first-strike capability against a nation that cannot threaten to destroy the US, and has no ambition to defeat America in a war, but only possesses a second-strike minimum deterrent. Such an attack would turn much of the world against a US willing to use nuclear weapons and kill hundreds of thousands or millions in order to defeat a nation that did not threaten its survival. Perhaps more to the point, an attack like this would be tremendously risky. Even after a perfect first strike some retaliation might get through, which could mean the nuclear destruction of an American city or perhaps the city of an American ally. At the very least, survivors of the attacked state and their allies would seek to unleash destruction upon the US in other ways, including an unconventional delivery of a nuclear, chemical, or biological weapon. An imperfect first strike, or, even worse, a failure of the US anti-missile system, would constitute a total disaster for the US: not only would it incur the world’s wrath and suffer the destruction of one or more of its cities, but such a failure would also expose America as both a brutal and vulnerable state, surely encouraging other states to acquire nuclear weapons or otherwise defy it. The US might have reason to launch a first strike against a large rival that deployed a major arsenal and appeared ready to attack America, as implausible as this scenario is. It would have little reason to do so against a small nation with a second-strike minimum deterrent arsenal. The nuclear revolution delivers a clear message to any large state considering major war with a powerful nuclear rival. The message is that such a war is likely to escalate to total nuclear exchange, and that in this event a large percentage of its citizenry will be killed or injured, its ability to govern what remains of the nation will be weakened or destroyed, and its power relative to other states that stayed out of the war will be radically diminished. It also delivers a message to any advanced small state eager to obtain security from the possible predation of large ones. The message is that if the small state possesses, or can quickly get its hands on, a few invulnerable and deliverable nuclear weapons, any large state contemplating invading it will have to weigh the benefits of invasion against a new kind of cost – not just a difficult or stalemated conventional war, such as the US faced in Vietnam and faces in Iraq, but the destruction of perhaps one, three, or five of its cities, and the death and injury of millions of its citizens. Unless it is able to obtain an absolutely fool-proof defence against any kind of nuclear retaliation, the choice that any large state is going to make when faced with this new circumstance is so likely to be peace that the small nuclear state can feel confident that it will be safe from conquest.34 The general relevance of these messages to American unipolar preponderance is clear. At the ‘great power’ level, rising states are unlikely to regard major war as a suitable means for overturning the international system and overthrowing American preponderance. The classic means of systemic change – hegemonic war – will not be an attractive option to any state hoping to survive, and the very existence of nuclear arsenals will make all states cautious about provoking conflict with nuclear rivals, especially the heavily armed US.35 Moreover, advanced smaller states know that they can provide for their own security, if they come to believe that it is endangered, not by embarking on large military build-ups or forming alliances with larger states, but by developing a small and invulnerable nuclear arsenal, or at least preparing the way to obtain such an arsenal quickly. This means that small states have a far greater ability to defend themselves from, and therefore be less afraid of, American predation today than comparable states facing dominant powers in previous eras.36 The main effects of the nuclear revolution, then, bolster the general claim of Power Preponderance that unipolarity is enduring. To support their claim, Brooks and Wohlforth specify three factors that dissuade would-be rivals to the US from balancing

 against it in traditional military terms: the effect of America’s relative geographical isolation from these potential rivals; the fact that American preponderance happened as a fait accompli about which no other nation could do anything; and the vast and growing ‘power gap’ between the US and all other rivals. The next section will describe each factor, and show how the nuclear revolution specifically reinforces each of them.

## Basing

### Backlash

#### Small nuclear military bases would be massively unpopular, causes backlash

Nexon 3/29/13 Prof. Georgetown Dan Nexon has held fellowships at Stanford University's Center for International Security and Cooperation and at the Ohio State University's Mershon Center for International Studies. During 2009-2010 he worked in the U.S. Department of Defense as a Council on Foreign Relations International Affairs Fellow. Professor Nexon specializes in the comparative-historical analysis of international politics, international-relations theory, and international security. His current research focuses on statecraft and instruments of power politics, particularly in the context of unequal inter-state relations. <http://www.whiteoliphaunt.com/duckofminerva/2013/03/small-modular-reactors-and-us-military-bases.html>

Advocates also seem to underestimate the political problems involved. These are substantial. No matter how comparatively safe SMRs actually are, the combination of “small,” “nuclear,” and “military base” isn’t likely to go over well either in the United States or among the citizens of overseas base hosts. Even if the Pentagon rules out deployment of SMRs at some of our most important overseas facilities, SMRs will still need to transit through the overseas basing and access network in order to be deployed at forward-operating locations. Consider how we would get them into Afghanistan if they existed already: doing so might involve (1) traversing NATO members’ airspace or territorial waters, (2) landing in Baku, (3) crossing some combination of Central Asian states, and (4) then winding up in Afghanistan. Future conflict scenarios might involve fewer partners. They might involve more. Regardless, it should be clear that we are looking at significant opportunities for political backlash–of the kind that might lead to the loss of critical basing and access agreements.

# 1NR

### O/V

#### Disad outweighs –

#### Failure to reform immigration ensures collapse of US biotech innovation necessary to dissuade and contain a bioterror attack

#### Risk of attack is high – only counter-measures solve

Glassman ’12 (James, “Expert: U.S. unprepared for bioterrorism attack”, April 5, <http://www.bioprepwatch.com/us_bioterror_policy/expert-u-s-unprepared-for-bioterrorism-attack/323620/>, CMR)

A recent essay published in Forbes magazine supports the contention that the United States remains woefully unprepared, if not uninterested, in the chances that it will face an attack using biological weapons.¶ James Glassman, a former undersecretary of state for public affairs and public diplomacy and the founder of the George W. Bush Institute, said that the United States remains vulnerable to an attack that could potentially kill hundreds of thousands of people because it lacks a means of producing needed medical countermeasures, according to Forbes.¶ Three years ago, a Congressional commission concluded that there is 50 percent chance that there will be an attack using a weapon of mass destruction somewhere in the world by 2013. The Commission on the Prevention of WMD Proliferation and Terrorism declared that the weapon used would more likely be biological than nuclear.¶ Regardless, Glassman said that the public has heard little about bioterrorism since the anthrax attacks in 2001, despite the considerable risk.¶ “Terrorists could spray Bacillus anthracis from crop-dusters over football stadiums,” Glassman wrote, Forbes reports. “Or they could send intentionally infected fanatics out to spread the smallpox virus through a crowded city, doing far more damage than a brigade of suicide bombers.”¶ Glassman pointed to last October’s Bio-Response Report Card study, issued last year by the Bipartisan WMD Terrorism Research Center, as proof that the country needs to do more to confront the threat of bioterrorism. The report card gave the United States a “D” grade for its detection and diagnosis capability and for the availability of medical countermeasures.¶ Glassman said that larger biopharmaceutical firms have done little to develop countermeasures, but small firms have filled the gap with mixed success.

#### New tech will ease delivery, increase bioweapon lethality—experts agree

Judith Miller, contributing editor, "Bioterrorism's Deadly Math," CITY JOURNAL, Fall 2008, pp. 53-61.

The challenge grows larger each day as the biotech revolution spreads skills and knowledge around the globe. Margaret Hamburg, a physician who served in senior health posts in the federal government and in New York City, calls the explosion of biotechnology "frightening." In a speech last September, she speculated on a variety of weapons, some already existent and others still being researched, that foes might deploy one day: aerosol technology to deliver infectious agents more efficiently into the lungs; gene therapy vectors that could cause a permanent change in an infected person's genetic makeup; "stealth" viruses that could lie dormant in victims until triggered; and biological agents intentionally engineered to be resistant to available antibiotics or evade immune response.

#### It will cause extinction – their ev is outdated

Anders Sandberg et al., James Martin Research Fellow, Future of Humanity Institute, Oxford University, "How Can We Reduce the Risk of Human Extinction?" BULLETIN OF THE ATOMIC SCIENTISTS, 9-9-08, http://www.thebulletin.org/web-edition/features/how-can-we-reduce-the-risk-of-human-extinction, accessed 5-2-10.

The risks from anthropogenic hazards appear at present larger than those from natural ones. Although great progress has been made in reducing the number of nuclear weapons in the world, humanity is still threatened by the possibility of a global thermonuclear war and a resulting nuclear winter. We may face even greater risks from emerging technologies. Advances in synthetic biology might make it possible to engineer pathogens capable of extinction-level pandemics. The knowledge, equipment, and materials needed to engineer pathogens are more accessible than those needed to build nuclear weapons. And unlike other weapons, pathogens are self-replicating, allowing a small arsenal to become exponentially destructive. Pathogens have been implicated in the extinctions of many wild species. Although most pandemics "fade out" by reducing the density of susceptible populations, pathogens with wide host ranges in multiple species can reach even isolated individuals. The intentional or unintentional release of engineered pathogens with high transmissibility, latency, and lethality might be capable of causing human extinction. While such an event seems unlikely today, the likelihood may increase as biotechnologies continue to improve at a rate rivaling Moore's Law.

#### Threat is real and growing--Aum Shinrikyo would have eventually succeeded if not caught by the authorities

Rita Grossman-Vermaas, Brian D. Finlay, and Elilzabeth Turpen, Ph.D., OLD PLAGUES, NEW THREATS: THE BIOTECH REVOLUTION AND ITS IMPACT ON U.S. NATIONAL SECURITY, Henry L. Stimson Center, March 2008, p. 2-4.

There is also precedent for the use of pathogens and toxin as bioweapons by sub-state terrorist groups. On at least three occasions, Aum Shinrikyo, the Japanese cult responsible for the 1995 sarin gas attacks in the Tokyo subway system, dispersed botulinum toxin aerosols at multiple sites in downtown Tokyo and at US military installations in Japan. Fortunately, their dissemination attempts were unsuccessful in causing fatalities, seemingly “due to faulty microbiological technique, deficient aerosolgenerating equipment, or internal sabotage.”8 If the operations of this group had not been disrupted by Japanese authorities, it is presumed that it would have eventually overcome the technical hurdles and successfully weaponized the toxin. Aum Shinrikyo also experimented with both anthrax and Ebola cultures. The ease of access to biological agents and weapons expertise by state and non-state actors has greatly increased and become widely recognized as a serious domestic and international security threat. This concern has only been heightened with scientific advances, the collapse of the former Soviet Union, the events of September 11, 2001, and the dissemination of the spore-forming bacterium that causes anthrax through the US postal system in October 2001.

### Inev

#### Skilled workers tied to comprehensive reform, won’t be addressed separately

Higgins 2/6 (John K. Higgins is a career business writer, with broad experience for a major publisher in a wide range of topics including energy, finance, environment and government policy, “Immigration Reform Could Open the Door for IT Talent”, <http://www.ecommercetimes.com/story/77241.html>, CR)

Congressional Hurdles and Outlook¶ How the bill fares in Congress may depend on how an overall comprehensive package of immigration reforms is handled.¶ "The Immigration Innovation Act could stand on its own, but in the current political situation it is unlikely that immigration issues will be handled piecemeal," Bob Sakaniwa, associate director of advocacy at the American Immigration Lawyers Association, told the E-Commerce Times. "The better prospect is that it will be included within a comprehensive package and its fate will be tied to what Congress does on the overall immigration reform effort."¶ The history of congressional immigration debates also indicates that the IT issue should be part of a comprehensive reform effort, LeDuc added. "As much as we might like, or it might seem practical to enact various reform initiatives independently, that's not a political reality at this time."¶ The momentum now exists for comprehensive immigration reform, and issues related to highly skilled workers have already made their way into bipartisan legislative language.¶ "We know that the attention of Congress will now be fully focused on achieving comprehensive reform and a complete bill in the next few months," Coffey said. "We're hoping that they succeed, and that's where our focus is."

#### Nope – Democrats won’t sign-off on piecemeal reform

Song 2/5 (Kyung, “Immigration committee examines skilled versus unskilled workers”, <http://seattletimes.com/html/localnews/2020294802_immigrationhearingxml.html>, CR)

WASHINGTON — Members of the House Judiciary Committee showed a sharp partisan divide during a hearing on immigration Tuesday that sometimes seemed to pit high-skilled foreign workers against illegal immigrants and those admitted to the U.S. through family ties.¶ A big portion of the hearing — the first on immigration this year — focused on temporary H-1B visas for science and technology workers.¶ Citing a shortage of qualified American engineers and programmers, Microsoft has been leading aggressive lobbying efforts to lift the cap on such foreign hires as well as for green cards allowing them to stay permanently.¶ Many members of the panel expressed strong support for creating more slots for high-tech talent. But Democrats largely swatted down Republicans’ suggestions to tackle that issue separately from possible citizenship for an estimated 11 million illegal immigrants and other thornier aspects of comprehensive immigration reform being debated in Congress.

### UQ

**Immigration will pass now—Obama is “using the bully pulpit” to build support for a bipartisan deal –FRAMING ISSUE – PC is the only relevant question because he can “chip away” at the remaining obstacles their evidence cites – that’s Dann and Nakamura**

#### Obama focusing capital on immigration – ensures momentum and vote count in both houses

Martin 3/28 (Gary, “Immigration reform gaining support in Congress”, <http://www.ctpost.com/local/article/Immigration-reform-gaining-support-in-Congress-4393187.php#ixzz2OyItXPQY>, CMR)

WASHINGTON -- A Republican Party in desperate search for relevance to Latino voters. An expanded Democratic advantage in the Senate. A second-term President with his legacy on the line.¶ Does all that add up to enough to break decades of impasse and produce comprehensive immigration reform? As expectations -- and tensions -- rise, the answer won't be long in coming.¶ A bipartisan bill could be filed in the Senate as early as next week, followed in relatively short order by a House bill, also crafted by a bipartisan group, aiming at a compromise on the key issue of citizenship.¶ The efforts are being applauded by President Barack Obama, who is using every ounce of his political clout to try to get comprehensive reform.¶ Obama said the time has come "to work up the political courage to do what's required to be done."¶ "I expect a bill to be put forward. I expect a debate to begin next month. I want to sign that bill into law as soon as possible," Obama said at a White House naturalization ceremony.¶ In addition to the issue of eventual citizenship for 11 million undocumented immigrants, Congress is expected to address the need for temporary or guest worker programs.¶ Congress last passed comprehensive bipartisan reform legislation in 1986, when President Ronald Reagan signed a law that granted citizenship to several million undocumented immigrants and created a guest worker program.¶ Up until now, Republicans have opposed citizenship programs as an "amnesty" for lawbreakers who entered the country illegally, and labor has chafed at guest worker programs.¶ But Republican losses in the 2012 elections and increased public support for reform have many in the GOP talking compromise.¶ "If there is one issue that the two parties could produce something meaningful on in this Congress, it would be immigration," said Stephen Hess, a political expert at The Brookings Institution.¶ Hess said an eventual bill "will have lots of provisos, and it will go back and forth, but it would be hard not to produce something given the general feeling that something has to be produced."¶ More and more Republicans are moving toward immigration-reform measures as the party seeks to reach out to Latinos, the nation's largest -- and growing -- minority voting bloc.¶ Public opinion is behind them.¶ A recent poll showed 63 percent of Americans supported a path to citizenship for undocumented workers provided they meet certain requirements, according to a survey by the Public Religion Research Institute.¶ Notable Republicans who have recently spoken in favor of compromise on citizenship proposals include Sen. Rand Paul, R-Ky.; former Mississippi Gov. Haley Barbour; and Rep. Paul Ryan, R-Wis.¶ And a March report by the National Republican Committee, considered a "post mortem" on the 2012 elections, recommended the GOP embrace comprehensive immigration reform to shore up its shaky standing with minorities -- Latinos, in particular.¶ Roy Beck, executive director of Numbers USA, which advocates lower numerical numbers on immigration, predicted a majority of Republican senators would oppose citizenship.¶ Groups like Numbers USA are working to hold GOP senators in line. They sent 13,000 emails to Kentucky voters that claimed Paul's position was "more radical and pro-immigration than anything proposed by President Obama."¶ The group has targeted Sen. Lindsey Graham, R-S.C., one of the "Gang of Eight" senators writing the Senate bipartisan bill, as a lawmaker who favors foreign workers over unemployed South Carolinians.¶ Democrats from conservative-leaning states could also feel political heat.¶ Beck said if five to 10 Democrats in the Senate oppose a bill, proponents would need 10 to 15 Republicans to reach the 60 votes needed to cut off debate and vote on legislation.¶ "You do the math," Beck said.¶ In 2007, an effort to cut off debate on a Senate immigration reform bill died on a 46-53 vote.¶ But immigrant reform proponents, such as America's Voice, say there is a "tectonic shift" in the GOP, and the Democrats also have expanded their Senate majority to 53-45, plus two independents who caucus with them. They predict the Senate will muster the votes necessary to pass a reform bill.¶ Still, it won't be easy.

#### Obama’s push overcomes remaining obstacles, including labor

Pace 3/28 (Julie, “Immigration Reform: Obama pushes for passage”, 2013, <http://www.trivalleycentral.com/casa_grande_dispatch/national_news/immigration-reform-obama-pushes-for-passage/article_3cdea61a-97c1-11e2-a2d5-0019bb2963f4.html>, CMR)

President Barack Obama pressed for swift action on a sweeping immigration bill Wednesday, saying last-minute obstacles are “resolvable” and predicting Congress could pass historic legislation by the end of the summer.¶ In back-to-back interviews with Spanish-language television networks, Obama repeatedly voiced confidence in a bipartisan Senate group that appears to be on the cusp of unveiling a draft bill. And he said that while he is still prepared to step in with his own bill if talks break down, he doesn’t expect that step to be necessary. ¶ “If we have a bill introduced at the beginning of next month as these senators indicate it will be, then I’m confident that we can get it done certainly before the end of the summer,” Obama told Telemundo.¶ While overhauling the nation’s patchwork immigration laws is a top second term priority for the president, he has ceded the negotiations almost entirely to Congress. He and his advisers have calculated that a bill crafted by Capitol Hill stands a better chance of winning Republican support than one overtly influenced by the president.¶ In his interviews Wednesday, Obama tried to stay out of the prickly policy issues that remain unfinished in the Senate talks, though he said a split between business and labor on wages for new low-skilled workers was unlikely to “doom” the legislation.¶ “This is a resolvable issue,” he said. ¶ The president also spoke Wednesday with Univision. His interviews followed a citizenship ceremony conducted Monday at the White House where he pressed Congress to “finish the job” on immigration, an issue that has vexed Washington for years.¶ The president made little progress in overhauling the nation’s fractured immigration laws in his first term, but he redoubled his efforts after winning re-election. The November contest also spurred some Republicans to drop their opposition to immigration reform, given that Hispanics overwhelmingly backed Obama.¶ In an effort to keep Republicans at the negotiation table, Obama has stayed relatively quiet on immigration over the last month. He rolled out his immigration principles during a January rally in Las Vegas and made an impassioned call for overhauling the nation’s laws during his State of the Union address, then purposely handed off the effort to lawmakers.¶ The president has, however, privately called members of the Senate working group, and the administration is providing technical support to the lawmakers. The Gang of Eight is expected to unveil its draft bill when Congress returns from a two-week recess the week of April 8.¶ Obama and the Senate group are in agreement on some core principles, including a pathway to citizenship for most of the 11 million illegal immigrants already in the country, revamping the legal immigration system and holding businesses to tougher standards on verifying their workers are in the country legally.¶ But they’re at odds over key issues. The Senate group wants the citizenship pathway to be contingent on securing the border, something Obama opposes. The president has also sidestepped the contentious guest-worker issue, which contributed to derailing immigration talks in 2007.¶ The U.S. Chamber of Commerce and the AFL-CIO have reached significant agreements on a new visa program that would bring up to 200,000 lower-skilled workers to the country each year. But they reached a stalemate Friday over wages for the workers, with the labor union pushing for higher wages than the chamber has agreed to so far.¶ Since then, talks have resumed and negotiators are “back on the right track,” Ana Avendano, a lead AFL-CIO negotiator, said Wednesday.¶ Avendano declined to offer specifics but said the chamber had moved off what she termed its insistence on “poverty-level wages” for the new workers.¶ “We’re very hopeful that we’re moving,” Avendano told reporters after a briefing for congressional staff on temporary-worker programs.

#### Momentum ensures bipartisan deal – overcomes border security and labor disputes

Sink 3/27 (Justin, “Obama 'confident' immigration reform will get done this summer”, <http://thehill.com/blogs/blog-briefing-room/news/290685-obama-confident-immigration-reform-will-get-done>, CMR)

President Obama expressed confidence Wednesday that lawmakers will strike a bipartisan immigration deal by the end of the summer.¶ “If we have a bill introduced at the beginning of next month as these senators indicate it will be, then I'm confident that we can get it done certainly before the end of the summer,” the president told Telemundo.¶ Obama taped interviews with both Telemundo and Univision on Wednesday afternoon in an effort to build momentum for an immigration deal, an achievement that seems within his grasp.¶ The bipartisan Senate group is expected to present a draft bill when Congress returns from a two-week Easter recess on April 8. Members of the group have expressed optimism they will be able to coalesce around a deal that tightens border security but also provides a path to citizenship for illegal immigrants.¶ Obama also downplayed a public clash between the U.S. Chamber of Commerce and the AFL-CIO. While the business and labor groups had agreed in principle on a temporary visa program, a split over worker wages has threatened to derail the process.¶ On Wednesday, Obama said that he did not agree that the split was “threatening to doom the legislation.”¶ “This is a resolvable issue,” Obama continued. “The most important thing is that we're seeing a strong commitment to finally solve this problem in a way that strengthens our border security, makes sure that there's a pathway to citizenship — an earned one, a tough one, but a pathway — so that people can live out their dreams and make sure that they have a better life for themselves and their kids.”¶ Obama is under pressure from Republicans to agree to a quantifiable set of border security standards before the nation’s estimated 11 million illegal immigrants are given any form of citizenship.¶ He told Telemundo it was important to provide clarity for illegal immigrants.¶ “Regardless of how much additional effort we put in on the borders, we don't want to make this earned pathway to citizenship a situation in which it's put off further and further into the future,” Obama said. “There needs to be a certain path for how people can get legal in this country, even as we also work on these strong border security issues.”¶ But in his remarks to Univision, Obama also stressed the need for a realistic evaluation of security procedures on the Southern border.¶ "Given the size of the border, it's never going to be 110 percent perfect," Obama said. "What we can do is to continue to improve it."¶ Obama said he remained optimistic that lawmakers would strike a deal.¶ “I'm not gonna presuppose failure,” Obama said. “I don't know why you keep on asking about failure, ‘cause I think this is gonna succeed.”¶ Obama repeated his threat that if the Senate fails to act on a deal to overhaul the nation's immigration action, he would push forward with his own legislation.¶ He said if that he has his own legislation if he sees “a breakdown."¶ “I'm prepared to step in. But I don't think that's going to be necessary,” Obama said.

### Not top of docket

#### Ev doesn’t say this – just says it won’t pass until summer – sure but Obama is spending pc now

#### Obama pressuring Congress to compromise and hammer out the details – the plan injects a massive partisan controversy that crushes his ability to shepherd a deal – more evidence

Anniston Star 3/27 (“On the offensive: Obama is wise to start anew the push for immigration reform”, <http://annistonstar.com/view/full_story/22088295/article-On-the-offensive--Obama-is-wise-to-start-anew-the-push-for-immigration-reform?instance=opinion_lead>, CMR)

The point: President Obama didn’t fulfill his promise of securing sweeping immigration-reform policies during his first term. Now in his second, Obama is beginning a new campaign to urge legislators — particularly Republicans — to find a bipartisan compromise that (a.) isn’t watered down and (b.) is effective.¶ It’s a lot to ask.¶ Nevertheless, Obama is wise to go on this offensive. The need, as always, is great.¶ An Associated Press report this week points out that the president is working behind the scenes in order to keep Republicans at the negotiating table between now and Congress’ April 8 return from spring break. The key is the Senate working group, the Gang of Eight, that is putting together a bipartisan plan the White House has yet to see. “We’ll reserve judgment on the product of those discussions until it’s produced,” White House spokesman Josh Earnest said.¶

#### Top priority for Obama – ensures quick passage

Pace 3/25 (Julie, “Obama calls for April debate on immigration bill”, <http://www.myfoxla.com/story/21785836/obama-calls-for-april-debate-on-immigration-bill>, CMR)

President Barack Obama challenged Congress Monday to "finish the job" of finalizing legislation aimed at overhauling the nation's immigration system.¶ With members of the House and Senate away on spring break, Obama made his most substantive remarks on the difficult issue in more than a month, saying he expects lawmakers to take up debate on a quickly and that he hopes to sign it into law as soon as possible.¶ "We've known for years that our immigration system is broken," the president said at a citizenship ceremony at the White House. "After avoiding the problem for years, the time has come to fix it once and for all."¶ The president spoke at a ceremony for 28 people from more than two dozen countries, including Afghanistan, China and Mexico. Thirteen of the new citizens are active duty service members in the U.S. military. The oath of allegiance was administered by Homeland Security Secretary Janet Napolitano.¶ While Obama has hosted citizenship ceremonies in previous years, Monday's event was laced with politics, given the ongoing debate over immigration reform on Capitol Hill. A bipartisan group of eight senators is close to finishing draft work on a bill that would dramatically reshape the U.S. immigration and employment landscape, putting 11 million illegal immigrants on a path to citizenship. The measure also would allow tens of thousands of new high- and low-skilled workers into the country.¶ The president applauded the congressional effort so far, but pressed lawmakers to wrap up their discussions quickly.¶ "We've got a lot of white papers and studies," Obama said. "We've just got to, at this point, work up the political courage to do what's required."¶ Immigration shot to the forefront of Obama's domestic agenda following the November election. Hispanics made up 10 percent of the electorate and overwhelmingly backed Obama, in part because of the tough stance on immigration that Republicans took during the campaign.¶ The election results spurred Republicans to tackle immigration reform for the first time since 2007 in an effort to increase the party's appeal to Hispanics and keep the GOP competitive in national elections.¶ Obama and the bipartisan Senate group are in lockstep on the key principles of a potential immigration bill, including a pathway to citizenship, strengthening the legal immigration system, and cracking down on businesses that employ illegal immigrants. The White House has largely backed the Senate process, but says it has its own immigration bill ready if the debate on Capitol Hill stalls.

### XO

#### Our internal link proves Obama would back down without political capital

#### Executive action fails – deters employers and immigrants

Cox and Rodriguez ‘9 Adam & cristina Adam B. Cox is a Professor of Law, University of Chicago Law School. Cristina M. Rodríguez is a Professor of Law, New York University School of Law. “The President and Immigration Law” The Yale Law Journal 119:458 2009

For example, in situations in which the Executive would prefer to admit immigrants with lawful status, it is largely powerless to do so. Their lawful admission would be inconsistent with the admissions criteria established by Congress. One instance in which the Executive might prefer access to the lawful path is when potential immigrants are unable or unwilling to bear the risks associated with unlawful entry. Whereas many low-skilled migrants with few other options bear these risks, high-skilled immigrants often will not. Migration to the United States may be less valuable to the latter, because they have more migration options, or because they have economic prospects at home sufficient to support a family and live a good life. What is more, employers of high-skilled immigrants may be much less likely to take the risk of flouting the immigration laws than employers of lower skilled labor. For high-skilled migrants, then, the delegation of ex post screening authority substitutes poorly for ex ante authority.

#### No executive action – Obama knows the risks

Hamilton 3/26 (Keegan, “How Obama Could (but Probably Won't) Stop Deporting Illegal Immigrants Today”, http://thehill.com/blogs/congress-blog/homeland-security/277799-dont-wait-for-president-obama-to-act-on-immigration-reform#ixzz2OrYPaWXd , CMR)

With immigration-reform legislation inching toward the president's desk, it's unlikely he'll waste political capital by halting deportations or even reducing the immigrant detainee population, despite the budgetary considerations. The prospect of doing anything that might alienate Republicans, especially with a compromise so close, alarms activists like Tamar Jacoby, president of ImmigrationWorks USA, an advocacy group comprised largely of small-business owners.¶ "We have a Congress for a reason," Jacoby says. "To fix anything permanently you need to have legislation, and in order for that to happen it has to be bipartisan. My worst nightmare is the president thinking, 'I don't need bipartisan legislation. Why share credit with Republicans? I can just go on and do this myself.' I think that's a disastrous political strategy."¶ If the current congressional push for immigration reform were to fail, however, a presidential pardon for undocumented immigrants with no criminal history might be Obama's last ditch alternative to prosecutorial discretion. Rather than scaling back on detentions, Obama could instantly--and permanently-- legalize millions of illegal immigrants. Beck, the Georgia law scholar, notes that the Constitution empowers the president to "grant reprieves and pardons for offences against the United States, except in cases of impeachment."¶ The question, he says, is "whether coming into the country in violation of the immigration laws or overstaying a visa could be deemed an 'offense against the United States.'" But the president has broad powers of pardon, and it seems that Obama could exercise those powers here. Beck cites United States v. Klein, an 1871 Supreme Court case that involved a presidential pardon issued during the Civil War to confederates who rejoined the union and took an oath of loyalty.¶ But even if executive-branch lawyers could put forth a legal rationale for the move, there are political reasons why Obama would likely be reluctant to make it. Although potentially cementing loyalty from a generation of Latinos, a mass pardon would likely be deeply unpopular with moderates and liberals who put faith in the legislative process, and would be considered downright treasonous by many Republicans. Obama could face Congressional censure or perhaps even impeachment if he had any time remaining in office, and the backlash against Democrats could make the Tea Party-fueled, Obamacare-inspired shellacking of 2010 look mild.¶ "If in December 2016 Obama says, 'Unconditional pardon to everybody in the country illegally,' that would totally dismantle Democratic Party governance for a generation," Mayer says. "I don't think he wants that to be his legacy."

### PC Key

#### No warrant except Hispanic vote – their UQ ev says GOP has backed away from that – means PC uniquely key now

#### PC is key

Anniston Star 3/27 (“On the offensive: Obama is wise to start anew the push for immigration reform”, <http://annistonstar.com/view/full_story/22088295/article-On-the-offensive--Obama-is-wise-to-start-anew-the-push-for-immigration-reform?instance=opinion_lead>, CMR)

The point: President Obama didn’t fulfill his promise of securing sweeping immigration-reform policies during his first term. Now in his second, Obama is beginning a new campaign to urge legislators — particularly Republicans — to find a bipartisan compromise that (a.) isn’t watered down and (b.) is effective.¶ It’s a lot to ask.¶ Nevertheless, Obama is wise to go on this offensive. The need, as always, is great.¶ An Associated Press report this week points out that the president is working behind the scenes in order to keep Republicans at the negotiating table between now and Congress’ April 8 return from spring break. The key is the Senate working group, the Gang of Eight, that is putting together a bipartisan plan the White House has yet to see. “We’ll reserve judgment on the product of those discussions until it’s produced,” White House spokesman Josh Earnest said.¶

#### PC still key – overcomes GOP intransigence

Huerta 3/15 – a UCLA visiting scholar at the Chicano Studies Research Center (Alavaro, “We need real immigration reform”, <http://www.mcclatchydc.com/2013/03/15/185971/we-need-real-immigration-reform.html#storylink=cpy>, CMR)

The time has arrived for President Obama and Congress to take immediate action on comprehensive, humane immigration reform.¶ By immigration reform, I am not talking about militarizing our borders, empowering employers to behave as immigration enforcement officials and imposing fines and back taxes on aspiring citizens. Instead, I am talking about allowing labor to cross our borders as transnational capital does, preventing employers from exploiting immigrant laborers and lowering application costs for future citizens.¶ Too often, when Democratic and Republican leaders speak about comprehensive immigration reform, their message mainly centers on enforcement-dominated policies. For instance, while Obama spoke eloquently about immigrants in his second inaugural address, his administration has deported more immigrants than that of his predecessor, President Bush, during the same time period.¶ As the Obama administration continues to separate hardworking immigrants from their families and friends, I find it hard to believe the president when he says, "Our journey is not complete until we find a better way to welcome the striving, hopeful immigrants who still see America as a land of opportunity."¶ I don't find the deportation of more than 1.6 million undocumented immigrants during Obama's first term in office as "welcoming."¶ Moreover, given that Republican leaders remain hostile and pay only lip service to Latinos and immigrants in this country, it's incumbent on Obama and Democratic leaders to invest the necessary political capital for the benefit of the estimated 11 undocumented immigrants in this country.

### NO spillover

**Yes spillover – our Nakamura evidence says Obama has “severely limited time frame” for accomplishing immigration and needs to focus his political capital on striking deals – plan ruins his leverage**

#### Energy fights will undermine the push for immigration

-Can’t win on energy / a2 winners win

-Sequencing link

-GOP unification link / a2 dickerson

Harder ’13 Amy, “In Washington, Energy and Climate Issues Get Shoved in the Closet” 2/6, <http://www.nationaljournal.com/columns/power-play/in-washington-energy-and-climate-issues-get-shoved-in-the-closet-20130206>, CMR

A week later, one senator, Republican Lisa Murkowski of Alaska, was standing at the podium in the same room to unveil her energy-policy blueprint. There were several open seats and just a few cameras. At least one reporter was there to ask the senator about her position on President Obama’s choice for Defense secretary, former Republican Sen. Chuck Hagel.¶ “I’m doing energy right now,” Murkowski responded. “I’m focused on that.”¶ Almost everyone else on Capitol Hill is focused on something else. Aside from the broad fiscal issues, Congress and the president are galvanizing around immigration reform.¶ Four years ago, the White House prioritized health care reform above comprehensive climate-change legislation. The former will go down in history as one of Obama’s most significant accomplishments. The latter is in the perpetual position of second fiddle. “To everything,” Murkowski interjected fervently when asked by National Journal Daily whether energy and climate policy was second to other policies in Washington’s pecking order.¶ Murkowski, ranking member of the Senate's Energy and Natural Resources Committee, said she hoped the Super Bowl blackout would help the public understand the importance of energy policy.¶ “This issue of immigration: Why are we all focused on that? Well, it’s because the Republicans lost the election because in part we did not have the Hispanic community behind us,” Murkowski said this week. “What is it that brings about that motivation? Maybe it could be something like a gap in the Super Bowl causes the focus on energy that we need to have. I can only hope.”¶ It will take more than hope. Elections have consequences, but so far the only kind of electoral consequence climate and energy policy has instigated is one that helped some lawmakers who supported cap-and-trade legislation to lose their seats in the 2010 midterm elections. For the pendulum to swing the other way—for lawmakers to lose their seats over not acting on climate and energy policy—seems almost unfathomable right now.¶ Billions of dollars are invested in the fossil-fuel power plants, refineries, and pipelines that the country depends on today. The companies that own this infrastructure have a business interest in keeping things the way they are. Immigration reform doesn’t face such formidable interests invested in the status quo.¶ “They [businesses] have employees—real, visible people—who they value and who they want to make legal as soon as possible,” said Chris Miller, who until earlier this year was the top energy and environment adviser to Senate Majority Leader Harry Reid, D-Nev.¶ On energy and climate-change policy, Miller added, “You’re probably never going to have anything like the fence in the Southwest or the border-control issue that pushes action and debate on immigration, because climate-change impacts will likely continue to be more abstract in the public's mind until those impacts are so crystal-clear it’s too late for us to do anything.”¶ Another, tactical reason helps build momentum on immigration and not on other issues. Obama can capitalize on immigration as it becomes more of a wedge issue within the GOP. On energy and climate policy, Obama faces a unified Republican Party.¶ “The president has cracked the code on how to push his agenda items through. He learned from his victories on the payroll tax and the fiscal cliff that the key is to stake out the political high ground on issues that poll in his favor while exploiting the divisions within the GOP,” said a former Republican leadership aide who would speak only on the condition of anonymity. “With this in mind, the next logical place for him to go is immigration. Unlike issues like energy or tax reform where the GOP is united, he can claim a big win on immigration reform while striking a political blow to Republicans.”¶

### DOD

#### Their evidence just says that the DoD can go ahead with energy prgrams because congress is gridlocked – doesn’t mean it's not perceived

#### No shielding--seen as covert attempt to push clean energy

Snider, 2/23/12 (Annie – reporter for E & E, Military’s alt energy programs draw Republicans’ Ire, Greenwire, p. <http://www.eenews.net/public/Greenwire/2012/02/23/2>)

But as election-year politics ramp up and Republicans target the Obama administration for its clean energy programs, especially its investment in failed solar panel manufacturer Solyndra,the military's attempts to move to alternative energy are coming under new scrutiny."Obama is hiding new renewable energy bets at the Pentagon, charging our Defense Department with major investments in 'low-emissions economic development' while cutting their budget by $5.1 billion," Catrina Rorke, director of energy policy at the center-right American Action Forum, wrote in a blog post following the Obama administration's budget release last week. "New energy spending is new energy spending, no matter where it happens." The idea that the administration is using DOD as a more politically palatable vehicle for renewable energy investments is now reverberating across Capitol Hill, even as Pentagon officials flatly deny the allegations.

#### Executive actions burn capital

Eberly, 1/21 --- coordinator of Public Policy Studies and assistant professor in the Department of Political Science at St. Mary's College of Maryland (1/21/2013, Todd, “The presidential power trap; Barack Obama is discovering that modern presidents have difficulty amassing political capital, which hinders their ability to enact a robust agenda,” <http://articles.baltimoresun.com/2013-01-21/news/bs-ed-political-capital-20130121_1_political-system-party-support-public-opinion>))

Many looked to the 2012 election as a means to break present trends. But Barack Obama's narrow re-election victory, coupled with the re-election of a somewhat-diminished Republican majority House and Democratic majority Senate, hardly signals a grand resurgence of his political capital. The president's recent issuance of multiple executive orders to deal with the issue of gun violence is further evidence of his power trap. Faced with the likelihood of legislative defeat in Congress, the president must rely on claims of unilateral power. But such claims are not without limit or cost and will likely further erode his political capital.

### Link

#### SMRs are politically “nuclear”

Fairley 10 Peter, IEEE Spectrum, May, "Downsizing Nuclear Power Plants,” [spectrum.ieee.org/energy/nuclear/downsizing-nuclear-power-plants/0](http://spectrum.ieee.org/energy/nuclear/downsizing-nuclear-power-plants/0)

However, there are political objections to SMRs. Precisely because they are more affordable, they may well increase the risk of proliferation by bringing the cost and power output of nuclear reactors within the reach of poorer countries.¶ Russia’s first SMR, which the nuclear engineering group Rosatom expects to complete next year, is of particular concern. The Akademik Lomonosov is a floating nuclear power plant sporting two 35-MW reactors, which Rosatom expects to have tethered to an Arctic oil and gas operation by 2012. The reactor’s portability prompted Greenpeace Russia to call this floating plant the world’s most dangerous nuclear project in a decade**.**¶SMRs may be smaller than today’s reactors. But, politically at least, they’re just as nuclear.

#### No turns, SMR debates are polarizing

Carper and Schmid 11 Ross Carper (rosscarper@gmail.com), a writer based in Washington state, is the founding editor of the creative nonfiction project BeyondtheBracelet.com. Sonja Schmid (sschmid@vt.edu) is an assistant professor in Science and Technology Studies at Virginia Tech. “The Little Reactor That Could?” Issues in Science and Technology, http://www.issues.org/27.4/carper.html

Historically, nuclear energy has been entangled in one of the most polarizing debates in this country. Promoters and adversaries of nuclear power alike have accused the other side of oversimplification and exaggeration. For today’s industry, reassuring a wary public and nervous government regulators that small reactors are completely safe might not be the most promising strategy. People may not remember much history, but they usually do remember who let them down before. It would make more sense to admit that nuclear power is an inherently risky technology, with enormous benefits that might justify taking these risks. So instead of framing small reactors as qualitatively different and “passively safe,” why not address the risks involved head-on? This would require that the industry not only invite the public to ask questions, but also that they respond, even—or perhaps especially—when these questions cross preestablished boundaries. Relevant historical experience with small compact reactors in military submarines, for example, should not be off limits, just because information about them has traditionally been classified.

# 2NR

#### More immigrants are key

Wee ‘13 (Heesun, “How Lack of Immigration Reform Harms Startups, US Economy”, 1/24, 2013, <http://www.cnbc.com/id/100401598>, CMR)

As President Barack Obama begins his second term, small companies and the technology community are hoping for immigration reform to help them secure highly skilled foreign workers.¶ Overhauling U.S. immigration law has been long-awaited for years. But without political consensus on the issue, technology startups in particular have felt the pains of limited works visas. They've also absorbed the high legal fees associated with the visa process — costs that few cash-strapped upstarts can afford.¶ "I've been blown away by how much the immigration policy has been kicking us in the teeth," said Alex Salazar, chief executive and co-founder of Stormpath, a Silicon Valley startup that's been struggling to find candidates in engineering, computer science and software development. Most of his candidates are from outside the U.S., and half the recruitment conversations are about visas.¶ "In Silicon Valley it's a war for talent — an all out knuckle-drag war," Salazar said. And America's current immigration policy only slows Salazar's ability to hire specialized talent in a tech sector that's hot, competitive and only growing.¶ Frustrated by how the drawn-out visa process is hampering his 11-employee business and its grow path, Salazar posted the following note on his Facebook page: "If you want to be a great startup CEO, become an expert in U.S. immigration policy."¶ Hopes for Immigration Reform¶ Stormpath and other startups say they can't efficiently hire qualified foreign candidates because of a shortage of temporary work visas and green cards. They've been pushing for legislation that would allow more immigrants with high-tech skills to remain in the country.¶ "The demand for software developer talent is growing so much faster than our own American candidate pool is growing — regardless of why," Salazar said. "The demand is insatiable. I can't just grab someone from a regular school and give them two months of training and throw them on our projects. You have to have six to seven years of experience, computer science degrees from the top schools."¶ Immigration reform wasn't a priority during Obama's first term. But during his second inaugural address, Obama hinted at change.¶ "Our journey is not complete until we find a better way to welcome the striving, hopeful immigrants who still see America as a land of opportunity," the president said, "until bright young students and engineers are enlisted in our workforce, rather than expelled from our country."¶ Gary Shapiro, president and chief executive of the Consumer Electronics Association, has been a vocal advocate of immigration reform. The message from the White House seems to be that Obama won't agree to raising visa caps for highly skilled immigrants unless it is part of a broader reform plan, he said.¶ "When I talk to our industry members, they all say it [the lack of immigration reform] is a problem for their companies," Shapiro said. "And it's not just our industry." Biotechnology and medical fields are experiencing similar struggles to fill specialized slots, he said.¶ Shapiro argues the current immigration landscape combined with our corporate tax policy dampens American entrepreneurship. "Between immigration and the tax system, it's a very harmful strategy to economic growth and job creation in the United States," Shapiro said.¶ Shapiro and other tech leaders were disappointed when the White House and Congress failed to pass a bill late last year that would have removed random lottery slots for hard science PhDs. The bill, known as the STEM Jobs Act, would have helped keep foreign-born graduates in America. The STEM fields are science, technology, engineering and

#### Their ev concludes neg – Obama pushing hard – private calls and technical support

Fox News, 3-28-2013[THIS IS THEIR AP ARTICLE] [http://latino.foxnews.com/latino/politics/2013/03/28/obama-immigration-reform-expected-by-end-summer/-http://latino.foxnews.com/latino/politics/2013/03/28/obama-immigration-reform-expected-by-end-summer/](http://latino.foxnews.com/latino/politics/2013/03/28/obama-immigration-reform-expected-by-end-summer/-http%3A//latino.foxnews.com/latino/politics/2013/03/28/obama-immigration-reform-expected-by-end-summer/), CMR

(WASHINGTON) — President Barack Obama pressed for swift action on a sweeping immigration bill Wednesday, saying last-minute obstacles are “resolvable” and predicting Congress could pass historic legislation by the end of the summer.¶ In back-to-back interviews with Spanish-language television networks, Obama repeatedly voiced confidence in a bipartisan Senate group that appears to be on the cusp of unveiling a draft bill. And he said that while he is still prepared to step in with his own bill if talks break down, he doesn’t expect that step to be necessary.¶ “If we have a bill introduced at the beginning of next month as these senators indicate it will be, then I’m confident that we can get it done certainly before the end of the summer,” Obama told Telemundo.¶ While overhauling the nation’s patchwork immigration laws is a top second term priority for the president, he has ceded the negotiations almost entirely to Congress. He and his advisers have calculated that a bill crafted by Capitol Hill stands a better chance of winning Republican support than one overtly influenced by the president.¶ In his interviews Wednesday, Obama tried to stay out of the prickly policy issues that remain unfinished in the Senate talks, though he said a split between business and labor on wages for new low-skilled workers was unlikely to “doom” the legislation.¶ “This is a resolvable issue,” he said.¶ The president also spoke Wednesday with Univision. His interviews followed a citizenship ceremony conducted Monday at the White House where he pressed Congress to “finish the job” on immigration, an issue that has vexed Washington for years.¶ The president made little progress in overhauling the nation’s fractured immigration laws in his first term, but he redoubled his efforts after winning re-election. The November contest also spurred some Republicans to drop their opposition to immigration reform, given that Hispanics overwhelmingly backed Obama.¶ In an effort to keep Republicans at the negotiation table, Obama has stayed relatively quiet on immigration over the last month. He rolled out his immigration principles during a January rally in Las Vegas and made an impassioned call for overhauling the nation’s laws during his early February State of the Union address, then purposely handed off the effort to lawmakers.

\*\*\*Their evidence ends

The president has, however, privately called members of the Senate working group, and the administration is providing technical support to the lawmakers. The Gang of Eight is expected to unveil its draft bill when Congress returns from a two-week recess the week of April 8.¶ Obama and the Senate group are in agreement on some core principles, including a pathway to citizenship for most of the 11 million illegal immigrants already in the country, revamping the legal immigration system and holding businesses to tougher standards on verifying their workers are in the country legally.¶ But they’re at odds over key issues. The Senate group wants the citizenship pathway to be contingent on securing the border, something Obama opposes. The president has also sidestepped the contentious guest-worker issue, which contributed to derailing immigration talks in 2007.¶ The U.S. Chamber of Commerce and the AFL-CIO have reached significant agreements on a new visa program that would bring up to 200,000 lower-skilled workers to the country each year. But they reached a stalemate Friday over wages for the workers, with the labor union pushing for higher wages than the chamber has agreed to so far.¶ Since then, talks have resumed and negotiators are “back on the right track,” Ana Avendano, a lead AFL-CIO negotiator, said Wednesday.¶ Avendano declined to offer specifics but said the chamber had moved off what she termed its insistence on “poverty-level wages” for the new workers.¶ “We’re very hopeful that we’re moving,” Avendano told reporters after a briefing for congressional staff on temporary-worker programs.¶ While Obama tries to keep the pressure on lawmakers this week, four members of the Senate immigration group toured Arizona’s border with Mexico to inspect the conditions there. Arizona’s Republican Sens. John McCain and Jeff Flake were joined by Democratic Sens. Chuck Schumer of New York and Michael Bennet of Colorado for the border tour.¶ The president also announced in his interviews that he planned to visit Mexico, as well as Costa Rica, in early May. The immigration debate in the U.S. is being closely watched by Latin American countries.