**Counter-interpretation 1 counterplan – it’s a significant limiting factor against infinite worlds**

**Conditionality is good –**

**1. Negative flexibility – checks first and last speech, infinite preparation, and new affirmatives**

**2. Ideological flexibility – tests the affirmative from left and right points of view, prepares us for oppositional politics which is a portable skill**

**3. Logical Policymaker – allows us to choose the best advocacy from a pool of potentially bad ones – only way to mimic real world analysis – that answers argumentative irresponsibility**

**A2: Dispo – illogical, the status quo should always be an option and plank stacking incentivizes permutations, also can’t solve ideological flexibility because it prevents an indictment of the relevant advocacy from different points of view. Also means policy or K teams won’t take the chance to be flexible because they’ll only insert what they feel comfortable with.**

**A2: Affirmative Strategy – Affirmative strategy is destroyed by faster debaters or double binding T with a DA – no cross applications because the K and counterplan are distinct. Conditionality promotes strategic thinking through understanding argument interaction – that’s key to decision-making skills since you have the jurisdiction to choose multiple options**

**Research DA – multiple worlds incentivizes more research because it’s contingent on have multi-faceted 2NR strategies**

## \*\*\*1NC

### 1

#### A. Financial incentives are distinct from rules and regulations-this excludes procurement

Menz, 5 **-** Faculty of Economics and Finance, School of Business, Clarkson University, Bertrand H. Snell Hall, Potsdam, NY, also from the Center for International Climate and Environmental Research, Oslo (CICERO), Norway (Fredric, “Green electricity policies in the United States: case study,” Energy Policy, December, Science Direct) **Italics in original**

There is considerable variation among states in both their regulatory environments and the policies that have been implemented to promote green electricity. In the following discussion, state and local policy instruments are categorized as financial incentives, rules and regulations, and voluntary measures.[7](http://www.sciencedirect.com.proxy.lib.umich.edu/science/article/pii/S0301421504001648#fn7)Financial incentives include various subsidies and/or funding in direct support of green electricity projects, tax incentives (credits, deductions, or exemptions), and provisions for zero-interest or low-interest loans. Rules and regulations include requirements that utilities distribute a minimum share of electricity from renewable or green energy sources, green power purchase requirements for government entities, and net-metering requirements for consumers with small renewable generating facilities. Voluntary measures include green power products aimed at electricity consumers, green power certificate programs, and other programs to increase market support for renewable energy technologies.

#### B. Negative Interpretation is Superior

**1-Limits-Our interpretation allows a fair number of mechanisms like grants, tax incentives, and loans. Their interpretation explodes the topic by including a number of rules and regulations like feed-in tariffs, net metering requirements, green power certification, and procurement. Fair limits are important to encourage clash and manageable research burdens.**

**2-Ground-Procurement is a distinct mechanism independent of affirmatives that are required directly to stimulate commercialization in the market. Procurement also allows the affirmative to dodge core generics like the energy DA by increasing procurement in contained areas like nuclear submarines.**

### 2

CIR will pass---bipartisan support but congressional backlash empirically ruins the deal.

CNBC 1/27 (“Obama Turns Focus This Week to Immigration Reform” http://www.cnbc.com/id/100410666)

Immigration reform will take center stage this week with President Barack Obama giving a major policy speech to relaunch his push for reform while a bipartisan group of senators is also expected to release its own ideas for new legislation. Amid the fiercely partisan discussions over fiscal issues that have dominated Washington since the election, there are indications of solid cross-party support for some form of immigration reform, with several leading Republicans urging the party to back significant changes. The center piece of any new legislation is likely to be the establishment of a mechanism for the estimated 11 million illegal immigrants currently in the US to obtain legal status. However, previous reform efforts have foundered despite enjoying strong support, and the tense atmosphere between the White House and some congressional Republicans could yet present an insurmountable obstacle. Mr Obama, who pledged to introduce new legislation during the election campaign, will give a speech on immigration reform on Tuesday in Las Vegas, the first major policy address of his second term. Bob Menendez, the New Jersey senator who met the president on Friday to discuss the issue, said Mr Obama had made it clear that it was "a top legislative priority for him in this session of the Congress" and that creating a pathway to "earned legalization" would be a central part of any immigration reform bill. Mr Menendez is part of a group of six senators from both parties expected this week to introduce their own set of ideas for what a reform package will contain. On the Republican side, some of the groundwork has already been laid by Florida senator Marco Rubio. "There's a new appreciation on both sides of the aisle including, maybe more importantly on the Republican side of the aisle, that we have to enact comprehensive immigration reform," John McCain, another of the Republican senators in the bipartisan group, said on ABC's This Week. Mr McCain added: "Look at the last election. We are losing dramatically the Hispanic vote, which we think should be ours, for a variety of reasons, and we've got to understand that."

DOD smrs drain capital

Bencosme 12 (Francisco, is a Joseph S. Nye, Jr. External Relations Intern at the Center for a New American Security (CNAS). “The State of Small Modular Nuclear Reactors” http://www.cnas.org/blogs/naturalsecurity/2012/11/state-small-modular-nuclear-reactors.html)

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. The bottom line: the administration’s recent moves are a sign that SMRs are poised to play a large role in any nuclear energy future.

Obama needs political capital to pass comprehensive reform---Democrats will block high skilled only legislation

Politico.com 1/15/13

HEADLINE: Lawmakers divided over immigration Jessica Meyers

Key lawmakers see opportunity this session to address immigration reform but remain stymied on a central issue: whether to tackle it in chunks or in one complete package. "Every member of Congress will find something in a comprehensive bill that they will not like," Rep. Raul Labrador (R-Idaho) said at Tuesday's POLITICO Pro Tech Deep Dive focused on Immigration, Technology and the 113th Congress. "We should have a series of bills -- four, five or six bills -- that we debate separately but that we vote together on the House floor." (PHOTOS: 20 quotes on immigration reform) Labrador accused the White House of aiming for a "political victory" instead of a "policy victory." Silicon Valley Democrat Zoe Lofgren redirected the blame to Congress. "I have had Republicans say they don't want Obama to do a bill because they want flexibility, but if he doesn't do a bill, he's criticized," she said. "I'm waiting for a signal from the speaker on what he wants to do. It's not that tough, it's just the decision to do it." Tech companies are lobbying hard for immigration reforms that would allow foreign employees to fill unmet demand and ensure they maintain global competitiveness. And all three lawmakers agree the system needs fixing. The difficulty lies in figuring out how to do it. But the issue is a special challenge for Republicans, who must reconcile shifting demographics and a history of no-mercy enforcement. "The Republicans have been really pathetic, quite frankly, to communicate our position on this," Rep. Jason Chaffetz (R-Utah) said. Chaffetz pushed a bill last session that would have lifted the country caps on visas for high-skilled workers. Tech companies like Microsoft and Google embraced the bill. The legislation passed the House but failed in the Senate. And Labrador has become a leading GOP voice on immigration changes, saying his decision to run for governor hinges on whether Congress implements reforms. He and Chaffetz advocated last session for legislation that would have granted up to 55,000 visas to noncitizens who complete certain science, technology, engineering and math degrees at American universities. Democrats lambasted the bill, known as the STEM Jobs Act, as a token Republican move to garner minority support. The Senate shot the bill down. "I want us to be known as the pro-immigration party," Labrador said. "I want us to be known that we welcome people to this country, that we want people to be successful. I want our party to take this lead on immigration reform." Democrats in both chambers are pushing for more overarching legislation, calling smaller attempts political posturing. "Everybody wants their piece," Lofgren said. "You talk to the ag people, you can't do the tech thing because we need migrant farm workers. You've got husbands and wives separated for half a decade. What's that do for our country? We have 2 million migrant farm workers who don't have their papers, and without them we don't have an agricultural industry." Lofgren has advocated for encompassing legislation that would grant citizenship to some undocumented immigrants who came to the United States at an early age and go on to college or the military. "I know these guys want to get something done," she said. "The Republicans are going to lose, lose, lose if they don't change on this issue. But it's not the same political calculation within districts." President Barack Obama has vowed to prioritize the issue this session, likely in one comprehensive bill. This would avoid Republican attempts to break it into smaller bits and address highly skilled workers, younger illegal immigrant and farm workers in separate bills. Immigration groups have voiced angst that the president has not moved faster to enact substantial reform. The administration has deported record numbers of illegal immigrants. But it also has started to make significant strides to expedite changes -- even without Congress. Obama signed an executive order in June that ordered Homeland Security officials to halt deportation proceedings against immigrants who entered the country as children and who have finished high school or joined the military. Similar legislation known as the DREAM Act has stalled in Congress. Obama is expected to lay out his plans as soon as his State of the Union speech next month. A bipartisan group of senators also is working on a reform bill.

#### Comprehensive immigration reform is key to the economy and highly skilled workers

Farrell 12/13/12 (Chris, a contributing editor for Bloomberg Businessweek. From 1986-97, he was on the magazine's staff, as a corporate finance staff and department editor and then as an economics editor. Farrell wrote Right on the Money: Taking Control of Your Personal Finances and Deflation: What Happens When Prices Fall? Among Farrell's many awards are a National Magazine Award, two Loeb Awards, and the Edward R. Murrow Award. Farrell is a graduate of the London School of Economics and Stanford University. “Obama’s Next Act: Immigration Reform” <http://www.businessweek.com/articles/2012-12-13/obamas-next-act-immigration-reform>)

Washington won’t get much of a reprieve from verbal pyrotechnics once the drama of the fiscal cliff is over. Up next: major immigration reform. President Obama has made it clear that a comprehensive overhaul of the nation’s badly frayed immigration system is a second-term priority. Many Republican lawmakers are convinced the big takeaway from the 2012 election results is that conservatives need to rethink their hard-line stance on immigration—including illegal immigrants. Here’s what Washington should do before tackling the tough job of rewriting the immigration laws: Create a quicksilver path to citizenship for the 11 million to 12 million undocumented workers in the U.S. (excluding the small number convicted of violent crimes or multiple felonies). The shift in status acknowledges that these foreign-born newcomers, like previous generations of immigrants, overcame significant obstacles to come to the U.S. to make a better life for their families. Illegal immigrants are neighbors heading off to work, sending their kids to school, and attending church. Their everyday lives would vastly improve by moving from the shadows of society into the mainstream. More important from a public-policy perspective, the change would give a boost to the economy’s underlying dynamism. “What you’re doing in the short run is making it easier for workers to move between jobs, a relatively small effect,” says Gordon Hanson, a professor of economics at the University of California at San Diego. “The larger effect from eliminating uncertainty for these immigrants is creating incentives for them to make long-term investments in careers, entrepreneurship, education, homes, and community.” Let’s state the obvious: A rapid transformation of illegal immigrants into legal immigrants isn’t in the cards. Amnesty—let alone citizenship—is an anathema to large parts of the electorate. Too bad, since the scholarly evidence is compelling that immigrants—documented or not, legal or illegal—are a boon to the net economy. “Competition fosters economic growth,” says Michael Clemens, senior fellow at the Center for Global Development in Washington. The economic return from attracting skilled immigrants to the U.S. is well known. Foreign-born newcomers account for some 13 percent of the population, yet they are responsible for one-third of U.S. patented innovations. The nation’s high-tech regions such as Silicon Valley, the Silicon Hills of Austin, Tex., and Boston’s Route 128 rely on immigrant scientists, engineers, entrepreneurs, and employees. Better yet, economist Enrico Moretti at the University of California at Berkeley calculates that a 1 percent increase in the share of college-educated immigrants in a city hikes productivity and wages for others in the city. Less appreciated is how much the economy gains from the efforts of less-skilled immigrants, including illegal workers. Throughout the country, foreign-born newcomers have revived beaten-down neighborhoods as immigrant entrepreneurs have opened small businesses and immigrant families have put down stakes. Immigrant workers have played a vital role keeping a number of industries competitive, such as agriculture and meatpacking. Cities with lots of immigrants have seen their per capita tax base go up, according to David Card, an economist at UC Berkeley. Despite the popular impression that a rising tide of immigrants is associated with higher crime rates, research by Robert Sampson of Harvard University and others offer a compelling case that it’s no coincidence that the growing ranks of immigrants tracks the reduction in crime in the U.S. But don’t newcomers—legal and illegal—drive down wages and job opportunities for American workers? Not really. A cottage industry of economic studies doesn’t find any negative effect on native-born wages and employment on the local level. On the national level the research shows the impact on native-born Americans doesn’t drift far from zero, either positively or negatively. “In both cases, immigrants are more likely to complement the job prospects of U.S.-born citizens than they are to compete for the same jobs as U.S.-born citizens,” Giovanni Peri, an economist at the University of California at Davis, writes in Rationalizing U.S. Immigration Policy: Reforms for Simplicity, Fairness, and Economic Growth. The counterintuitive results reflect a numbers of factors. Immigrants expand the size of the economic pie by creating new businesses, new jobs, and new consumers. Middle-class families find it easier to focus on careers with affordable immigrant labor offering gardening, child care, and other services. Many illegal immigrants aren’t fluent in English, so they don’t compete for the same jobs as native-born workers. Another factor behind the lack of direct competition is the higher educational level of native-born Americans. In 1960 about half of U.S.-born working-age adults hadn’t completed high school, while the comparable figure today is about 8 percent. The real downside concern is on the fiscal side of the immigrant ledger. Yes, more taxes would go into Social Security, Medicare, and the like with legalization, but more people would qualify for Medicaid, welfare, and other benefits. At the local level, many school districts are strained financially from educating immigrant children, legal and illegal. That said, the prospect of fiscal costs would diminish as newly legalized immigrant workers move freely around the country seeking jobs, entrepreneurs are comfortable expanding their payrolls, and immigrant parents push their children to live the American Dream. “Over time, as entrepreneurs emerge and families are better able to get their kids through high school and college, you’re reducing the long-run fiscal claim of the group,” says Hanson. There is no economic evidence that making roughly 6 percent of the workforce illegal will benefit the economy. Plenty of research supports the opposite case. A fast track to legality offers Washington a rare twofer: a just move that’s economically efficient.

**Decline goes nuclear**

**Harris and Burrows 09** PhD European History @ Cambridge, counselor in the National Intelligence Council (NIC) & member of the NIC’s Long Range Analysis Unit

Mathew, and Jennifer “Revisiting the Future: Geopolitical Effects of the Financial Crisis” <http://www.ciaonet.org/journals/twq/v32i2/f_0016178_13952.pdf>

Of course, the report encompasses more than economics and indeed believes the future is likely to be the result of a number of intersecting and interlocking forces. With so many possible permutations of outcomes, each with ample Revisiting the Future opportunity for unintended consequences, there is a growing sense of insecurity. Even so, history may be more instructive than ever. While we continue to believe that the Great Depression is not likely to be repeated, the lessons to be drawn from that period include the harmful effects on fledgling democracies and multiethnic societies (think Central Europe in 1920s and 1930s) and on the sustainability of multilateral institutions (think League of Nations in the same period). There is no reason to think that this would not be true in the twenty-first as much as in the twentieth century. For that reason, the ways in which the potential for greater conflict could grow would seem to be even more apt in a constantly volatile economic environment as they would be if change would be steadier. In surveying those risks, the report stressed the likelihood that terrorism and nonproliferation will remain priorities even as resource issues move up on the international agenda. Terrorism’s appeal will decline if economic growth continues in the Middle East and youth unemployment is reduced. For those terrorist groups that remain active in 2025, however, the diffusion of technologies and scientific knowledge will place some of the world’s most dangerous capabilities within their reach. Terrorist groups in 2025 will likely be a combination of descendants of long established groups\_inheriting organizational structures, command and control processes, and training procedures necessary to conduct sophisticated attacks\_and newly emergent collections of the angry and disenfranchised that become self-radicalized, particularly in the absence of economic outlets that would become narrower in an economic downturn. The most dangerous casualty of any economically-induced drawdown of U.S. military presence would almost certainly be the Middle East. Although Iran’s acquisition of nuclear weapons is not inevitable, worries about a nuclear-armed Iran could lead states in the region to develop new security arrangements with external powers, acquire additional weapons, and consider pursuing their own nuclear ambitions. It is not clear that the type of stable deterrent relationship that existed between the great powers for most of the Cold War would emerge naturally in the Middle East with a nuclear Iran. Episodes of low intensity conflict and terrorism taking place under a nuclear umbrella could lead to an unintended escalation and broader conflict if clear red lines between those states involved are not well established. The close proximity of potential nuclear rivals combined with underdeveloped surveillance capabilities and mobile dual-capable Iranian missile systems also will produce inherent difficulties in achieving reliable indications and warning of an impending nuclear attack. The lack of strategic depth in neighboring states like Israel, short warning and missile flight times, and uncertainty of Iranian intentions may place more focus on preemption rather than defense, potentially leading to escalating crises. 36 Types of conflict that the world continues to experience, such as over resources, could reemerge, particularly if protectionism grows and there is a resort to neo-mercantilist practices. Perceptions of renewed energy scarcity will drive countries to take actions to assure their future access to energy supplies. In the worst case, this could result in interstate conflicts if government leaders deem assured access to energy resources, for example, to be essential for maintaining domestic stability and the survival of their regime. Even actions short of war, however, will have important geopolitical implications. Maritime security concerns are providing a rationale for naval buildups and modernization efforts, such as China’s and India’s development of blue water naval capabilities. If the fiscal stimulus focus for these countries indeed turns inward, one of the most obvious funding targets may be military. Buildup of regional naval capabilities could lead to increased tensions, rivalries, and counterbalancing moves, but it also will create opportunities for multinational cooperation in protecting critical sea lanes. With water also becoming scarcer in Asia and the Middle East, cooperation to manage changing water resources is likely to be increasingly difficult both within and between states in a more dog-eat-dog world.

### 5

**The United States federal government should**

**-reform existing domestic subsidies for non-nuclear renewable energy to be conditional on price reductions and improved performance**

**-substantially increase funding for non-nuclear renewable energy research and development**

**-substantially increase global climate financing for non-nuclear carbon reduction strategies**

**-support non-nuclear carbon reduction strategies in future climate negotiations**

#### CP solves the case – spurs renewable transition and solves warming

Jenkins et al-Breakthrough Institute-4/12

Beyond Boom and Bust <http://thebreakthrough.org/blog/Beyond_Boom_and_Bust.pdf>

In light of these budgetary findings, this report concludes that policy makers and business leaders need to unite behind timely energy policy reform that supports US innovation, rewards continual improvements in clean tech price and performance, and secures subsidy independence for clean tech markets as rapidly as possible. The key implications of this report’s analysis are: The maintenance of perpetual subsidies is not a sustainable solution to the new challenges facing the US clean tech industry. Clean tech markets in America have lurched from boom to bust for decades, and the root cause remains the same: the higher costs and risks of emerging US clean tech products relative to either incumbent fossil energy technologies or lower-cost international competitors, which make US clean tech sectors dependent on subsidy and policy support. Cost competitiveness is achievable, but until technological innovation and cost declines can secure independence from ongoing subsidy, clean tech segments will remain continually imperiled by the threat of policy expiration and political uncertainty. Continual improvement in price and performance is thus the only real pathway beyond the cycle of clean tech boom and bust. Maintaining a viable US clean tech industry will require policy makers to reform the nation’s myriad energy subsidies, which should be optimized to drive improvements in technology price and performance and ensure clean tech segments achieve subsidy independence as rapidly as possible. Federal clean energy policies should reward firms for continually improving the performance and reducing the cost of their technologies, or for inventing and commercializing next-generation, advanced energy technologies, not simply for deploying current-generation technologies without advancing them towards subsidy independence Energy subsidies should be temporary and targeted to drive the maturation and improvement of emerging technologies. Just as subsidies for clean tech sectors should phase out as these sectors mature, it is long-past time to end subsidies for well-established fossil energy production methods and technologies as well. The United States can leverage its strengths as an innovation leader and accelerate the pathway to clean tech subsidy independence by increasing funding for energy RD&D, accelerating advanced energy technology commercialization, and harnessing the advanced manufacturing capabilities, regional industry clusters, and high-skilled energy workforce that are crucial to a robust innovation system. Establishing subsidy independent, highly innovative US clean tech markets will also position US firms to compete effectively in growing international markets for clean energy products. With the right reforms, the United States has the opportunity to be a leader in the invention and production of next-generation technologies for sale to an energy-hungry global market.

Renewable energy fills in globally – solves faster

IPCC 12

Intergovernmental Panel on Climate Change ‘12

Renewable Energy Sources and Climate Change Mitigation

<http://srren.ipcc-wg3.de/report/IPCC_SRREN_Full_Report.pdf>

The global technical potential of RE sources will not limit continued growth in the use of RE. A wide range of estimates is provided in the literature, but studies have consistently found that the total global technical potential for RE is substantially higher than global energy demand (Figure SPM.4) [1.2.2, 10.3, Annex II]. The technical potential for solar energy is the highest among the RE sources, but substantial technical potential exists for all six RE sources. Even in regions with relatively low levels of technical potential for any individual RE source, there are typically signiﬁcant opportunities for increased deployment compared to current levels. [1.2.2, 2.2, 2.8, 3.2, 4.2, 5.2, 6.2, 6.4, 7.2, 8.2, 8.3, 10.3] In the longer term and at higher deployment levels, however, technical potentials indicate a limit to the contribution of some individual RE technologies. Factors such as sustainability concerns [9.3], public acceptance [9.5], system integration and infrastructure constraints [8.2], or economic factors [10.3] may also limit deployment of RE technologies

#### SMRs increase risk of global accidents

MAKHIJANI-Institute for Energy and Environmental Research-10

<http://www.psr.org/nuclear-bailout/resources/small-modular-reactors-no.pdf>

Small Modular Reactors No Solution for the Cost, Safety, and Waste Problems of Nuclear Power

Increased safety and proliferation problems Mass manufacturing raises a host of new safety, quality, and licensing concerns that the NRC has yet to address. For instance, the NRC may have to devise and test new licensing and inspection procedures for the manufacturing facilities, including inspections of welds and the like. There may have to be a process for recalls in case of major defects in mass-manufactured reactors, as there is with other mass-manufactured products from cars to hamburger meat. It is unclear how recalls would work, especially if transportation offsite and prolonged work at a repair facility were required. Some vendors, such as PBMR (Pty) Ltd. and Toshiba, are proposing to manufacture the reactors in foreign countries. In order to reduce costs, it is likely that manufacturing will move to countries with cheaper labor forces, such as China, where severe quality problems have arisen in many products from drywall to infant formula to rabies vaccine. Other issues that will affect safety are NRC requirements for operating and security personnel, which have yet to be determined. To reduce operating costs, some SMR vendors are advocating lowering the number of staff in the control room so that one operator would be responsible for three modules. 12 In addition, the SMR designers and potential operators are proposing to reduce the number of security staff, as well as the area that must be protected. NRC staff is looking to designers to incorporate security into the SMR designs, but this has yet to be done. 13 Ultimately, reducing staff raises serious questions about whether there would be sufficient personnel to respond adequately to an accident. Of the various types of proposed SMRs, liquid metal fast reactor designs pose particular safety concerns. Sodium leaks and fires have been a central problem—sodium explodes on contact with water and burns on contact with air. Sodium-potassium coolant, while it has the advantage of a lower melting point than sodium, presents even greater safety issues, because it is even more flammable than molten sodium alone. 14 Sodium-cooled fast reactors have shown essentially no positive learning curve (i.e., experience has not made them more reliable, safer, or cheaper). The world’s first nuclear reactor to generate electricity, the EBR I in Idaho, was a sodiumpotassium-cooled reactor that suffered a partial meltdown. 22 EBR II, which was sodium cooled reactor, operated reasonably well, but the first US commercial prototype, Fermi I in Michigan had a meltdown of two fuel assemblies and, after four years of repair, a sodium explosion. 23 The most recent commercial prototype, Monju in Japan, had a sodium fire 18 months after its commissioning in 1994, which resulted in it being shut down for over 14 years. The French Superphénix, the largest sodium-cooled reactor ever built, was designed to demonstrate commercialization. Instead, it operated at an average of less than 7 percent capacity factor over 14 years before being permanently shut. 24 In addition, the use of plutonium fuel or uranium enriched to levels as high as 20 percent—four to five times the typical enrichment level for present commercial light water reactors—presents serious proliferation risks, especially as some SMRs are proposed to be exported to developing countries with small grids and/or installed in remote locations. Security and safety will be more difficult to maintain in countries with no or underdeveloped nuclear regulatory infrastructure and in isolated areas. Burying the reactor underground, as proposed for some designs, would not sufficiently address security because some access from above will still be needed and it could increase the environmental impact to groundwater for example, in the event of an accident

#### Extinction

Wasserman, 1 (Harvey, Senior Editor – Free Press, “America's Terrorist Nuclear Threat to Itself”, October, http://www.wagingpeace.org/articles/2001/10/00\_wasserman\_nuclear-threat.htm)

Without continous monitoring and guaranteed water flow, the thousands of tons of radioactive rods in the cores and the thousands more stored in those fragile pools would rapidly melt into super-hot radioactive balls of lava that would burn into the ground and the water table and, ultimately, the Hudson. Indeed, a jetcrash like the one on 9/11 or other forms of terrorist assault at Indian Point could yield three infernal fireballs of molten radioactive lava burning through the earth and into the aquifer and the river. Striking water they would blast gigantic billows of horribly radioactive steam into the atmosphere. Prevailing winds from the north and west might initially drive these clouds of mass death downriver into New York City and east into Westchester and Long Island. But at Three Mile Island and Chernobyl, winds ultimately shifted around the compass to irradiate all surrounding areas with the devastating poisons released by the on-going fiery torrent. At Indian Point, thousands of square miles would have been saturated with the most lethal clouds ever created or imagined, depositing relentless genetic poisons that would kill forever. In nearby communities like Buchanan, Nyack, Monsey and scores more, infants and small children would quickly die en masse. Virtually all pregnant women would spontaneously abort, or ultimately give birth to horribly deformed offspring. Ghastly sores, rashes, ulcerations and burns would afflict the skin of millions. Emphysema, heart attacks, stroke, multiple organ failure, hair loss, nausea, inability to eat or drink or swallow, diarrhea and incontinance, sterility and impotence, asthma, blindness, and more would kill thousands on the spot, and doom hundreds of thousands if not millions. A terrible metallic taste would afflict virtually everyone downwind in New York, New Jersey and New England, a ghoulish curse similar to that endured by the fliers who dropped the atomic bombs on Hiroshima and Nagaskai, by those living downwind from nuclear bomb tests in the south seas and Nevada, and by victims caught in the downdrafts from Three Mile Island and Chernobyl. Then comes the abominable wave of cancers, leukemias, lymphomas, tumors and hellish diseases for which new names will have to be invented, and new dimensions of agony will beg description. Indeed, those who survived the initial wave of radiation would envy those who did not. Evacuation would be impossible, but thousands would die trying. Bridges and highways would become killing fields for those attempting to escape to destinations that would soon enough become equally deadly as the winds shifted. Attempts to quench the fires would be futile. At Chernobyl, pilots flying helicopters that dropped boron on the fiery core died in droves. At Indian Point, such missions would be a sure ticket to death. Their utility would be doubtful as the molten cores rage uncontrolled for days, weeks and years, spewing ever more devastation into the eco-sphere. More than 800,000 Soviet draftees were forced through Chernobyl's seething remains in a futile attempt to clean it up. They are dying in droves. Who would now volunteer for such an American task force? The radioactive cloud from Chernobyl blanketed the vast Ukraine and Belarus landscape, then carried over Europe and into the jetstream, surging through the west coast of the United States within ten days, carrying across our northern tier, circling the globe, then coming back again. The radioactive clouds from Indian Point would enshroud New York, New Jersey, New England, and carry deep into the Atlantic and up into Canada and across to Europe and around the globe again and again. The immediate damage would render thousands of the world's most populous and expensive square miles permanently uninhabitable. All five boroughs of New York City would be an apocalyptic wasteland. The World Trade Center would be rendered as unusable and even more lethal by a jet crash at Indian Point than it was by the direct hits of 9/11. All real estate and economic value would be poisonously radioactive throughout the entire region. Irreplaceable trillions in human capital would be forever lost. As at Three Mile Island, where thousands of farm and wild animals died in heaps, and as at Chernobyl, where soil, water and plant life have been hopelessly irradiated, natural eco-systems on which human and all other life depends would be permanently and irrevocably destroyed, Spiritually, psychologically, financially, ecologically, our nation would never recover. This is what we missed by a mere forty miles near New York City on September 11. Now that we are at war, this is what could be happening as you read this. There are 103 of these potential Bombs of the Apocalypse now operating in the United States. They generate just 18% of America's electricity, just 8% of our total energy. As with reactors elsewhere, the two at Indian Point have both been off-line for long periods of time with no appreciable impact on life in New York. Already an extremely expensive source of electricity, the cost of attempting to defend these reactors will put nuclear energy even further off the competitive scale. Since its deregulation crisis, California---already the nation's second-most efficient state---cut further into its electric consumption by some 15%. Within a year the US could cheaply replace virtually with increased efficiency all the reactors now so much more expensive to operate and protect. Yet, as the bombs fall and the terror escalates, Congress is fast-tracking a form of legal immunity to protect the operators of reactors like Indian Point from liability in case of a meltdown or terrorist attack. Why is our nation handing its proclaimed enemies the weapons of our own mass destruction, and then shielding from liability the companies that insist on continuing to operate them? Do we take this war seriously? Are we committed to the survival of our nation? If so, the ticking reactor bombs that could obliterate the very core of our life and of all future generations must be shut down.

### 3

#### Military bases pursuing community relations now – solves land encroachment issues key to readiness, but energy siting results in local community backlash and undermines base deployment

Boccuti, Faul and Gray, 12

Amanda Boccuti, GIS Support Analyst, Marstel-Day, LLC, providing analysis and GIS support for U.S. Marine Corps projects. Lauren Faul, Specializing in Strategic Communications Analyst, Marstel-Day, LLC, Her primary responsibilities entail the development of engagement plans for the U.S. Marine Corps which will provide them a framework to sustain the missions through community outreach and engagement. She has previously worked as a Communications Director on Capitol Hill and Congressional Liaison for the Marine Corps. Lauren Gray, Environmental Issues Researcher, Marstel-Day, LLC, offering research and analysis of environmental issues for encroachment control plans and communications, outreach and engagement strategies for the U.S. Marine Corps. Her primary focus areas include climate change effects and energy development, 5/21/12, http://engagingcities.com/article/establishing-creative-strategies-effective-engagement-between-military-installations-communi

Throughout the Nation’s history, military installations and ranges were historically established in undeveloped areas, except for those forts located to defend cities. Local communities developed near the installations for safety and economic reasons resulting in the installation being the up-to-that-point rural community’s primary economic engine. Routine communication between the installations and local communities were minimal because the installation was self-supporting and not subject to local laws and regulations. Communications were primarily social. Starting in the post-World War II era and accelerating as the 20th Century came to a close, installation-adjacent communities increased in both density and size – becoming less rural, more suburban or urban, and more economically diverse. Military missions continue to evolve, incorporating new weapon platforms and training over larger areas and at all hours of the day and night. These changes in both surrounding communities and the installation missions have often lead to competing interests with respect to the economy, natural resource management, and land use. Military installations and local communities must, therefore, focus communication efforts on building partnerships to find mutually acceptable paths forward for resolving their competing interests. Developing collaborative relationships is imperative to turning otherwise conflicting interests into opportunities for mutually beneficial solutions. The nature of those interactions is defined by issue type, installation and community rapport, and available communication channels. The four military services (i.e., Army, Navy, Marine Corps and Air Force) have service-specific community engagement programs to develop partnerships; all four, however, conduct information sharing through the Public Affairs Office (PAO), which handles media and public relations. Three of the services – the Navy, Marine Corps, and Air Force – have established encroachment management policies that outline service responsibilities to establish, maintain, and sustain community relationships in order to reduce encroachment effects. This responsibility is usually assigned to a Community Plans and Liaison Office (CPLO) or an equivalent community planner. The CPLO and PAO work with their installation Commander to act as the military’s voice and point of engagement in the community through consistent messaging, establishing an installation presence in community forums, and planning community-engagement events and processes. Though Department of Defense (DoD) mechanisms exist to develop community partnerships, mediating the different interests and priorities among military installations and their surrounding communities is a complex, nuanced process usually exercised by the services, through their installation leadership. Siting of renewable energy projects, environmental stewardship responsibilities, noise from training events, and other policy- and planning-related matters invoke difficult questions, such as: how can an installation and its surrounding communities concurrently pursue goals and development in a way that lead to mutual gain, obtaining threshold requirements and fair compromise? Finding interest nexuses and fostering an open, strong relationship in which those nexuses can be explored is key.

#### We have 2 links

#### A. Community backlash – 1AC author agrees

Andres and Breetz 11

Richard Andres, 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 Breetz, doctoral candidate in the Department of Political Science at The Massachusetts Institute of Technology, Small Nuclear Reactorsfor Military Installations:Capabilities, Costs, andTechnological Implications, www.ndu.edu/press/lib/pdf/StrForum/SF-262.pdf

Small reactors used on domestic military bases are likely to face a number of additional siting hurdles. As a distributed energy source, they are likely to face substantial “not-in-my-backyard” battles. Moreover, dispersing a large number of reactors leads to questions about longterm nuclear waste disposal. 27 Arguably, reactors should be relatively safe on domestic military installations, certainly more secure than, for instance, the reactors situated in developing countries or intended for processing tar sands. Nevertheless, no issue involving nuclear energy is simple. Institutional and technical uncertainties—such as the security of sealed modules, the potential and unintended social and environmental consequences, or the design of reliable safeguards—make dispersing reactors across the country challenging. Some key issues that require consideration include securing sealed modules, determining how terrorists might use captured nuclear materials, carefully considering the social and environmental consequences of dispersing reactors, and determining whether Permissive Action Links technology could be used to safeguard them.

#### B. Isolation link

Parthemore and Rogers, 10

Christine Parthemore, Will Rogers, Center New American Security, 5/20, http://www.cnas.org/node/4502-http://www.cnas.org/node/4502

Are small nuclear reactors a smart choice for increasing energy security and reducing greenhouse gas emissions at federal government facilities? In recent months this has become a hot question in particular at domestic U.S. military installations, which must meet unique energy needs while reducing their carbon footprints. Now, it appears that this question is taking Capitol Hill by storm as well. The media have reported that Tennessee Sen. Lamar Alexander (R) is proposing a joint Department of Energy/Department of Defense demonstration project to examine the use of small reactors on federal sites. For some Department of Energy sites, such as Oak Ridge National Lab in Alexander’s home state — a site certainly accustomed to housing nuclear technology — demonstrating new nuclear reactor technology is largely a no-brainer. However, using nuclear reactors to power the nation’s defense installations warrants deeper consideration. Proponents of boosting this carbon-free energy source on military bases argue that these installations have unique capacities that would ease concerns over its use, namely more gates and more armed guards already on base 24/7. Likewise, the U.S. military services have unique energy security needs. Consistent energy supplies are a critical component of America’s ability to train at home and to operate globally. Energy is so important that some analysts are even exploring “islanding” the energy systems on some military installations to reduce vulnerabilities related to their reliance on often brittle domestic electric grids. Consideration of nuclear energy as part of these islanding concepts is on the rise. On the other hand, opponents contend that sufficient numbers of military base personnel may not have the requisite training in nuclear reactor management, oversight and regulatory credentials to attend to reactors in the round-the-clock manner necessary. In most cases, additional qualified personnel and improved physical security and safety requirements would be needed. As with all nuclear power generation, materials proliferation, water usage, radioactive waste management and public opinion will also be major concerns. Most military bases also strive to be integrated into their surrounding communities, and, by our experience, many base officials consider integrated electric infrastructure an important point of connection between local and military needs. Concepts for nuclear energy generation solely to supply military bases must be sensitive to what public perceptions could be in the event of extended blackouts for surrounding communities. Any legislation to consider the option of small nuclear reactors on military bases must include examination of these important concerns.

#### Strong community relations are key to readiness

Orr et al 09 (Kristen, Project Manager, DOD-Office of Economic Adjustment, with Ned McKinley and Jennifer Driemeyer, “Community and Military Compatibility Planning,” Dec 10, http://opr.ca.gov/docs/Military\_GPG\_Supplement.pdf)

The Department of Defense (DoD) has a significant presence in the State of California. The military has made many economic and technological investments including large investments in land and military installations. The State has a strategic location, unique landscape and valuable resources that help further military readiness for actions around the globe. The state’s unique resources and the military’s investments have fostered a strong partnership between the two parties. This partnership and collaboration is vital for economic, resource management, and military readiness reasons. The economies of local communities, as well as the state, are impacted by the militaries presence and California plays an integral role in national security. The burden of maintaining this partnership often falls on the shoulders of cities and counties. In addition to juggling the competing demands of expanding development, promoting economic development and upholding environmental quality standards, local governments must also consider the needs of local military installations in their land use planning. Traditionally military installations were strategically located in underdeveloped areas so as to avoid land use conflicts. As the population of the state continues to grow and the land use needs of communities continue to expand outward, the need for stronger relationships and communication between local governments and the military is needed. Without adequate communication and coordinated land-use efforts, military missions, quality of life and public safety are increasingly jeopardized.

**Los of readiness increases the chance for conflict and nuclear war**

**Kagan 2007**

Robert, End of Dreams, Return of History, Hoover Institute, <http://www.hoover.org/publications/policy-review/article/6136>

The current order, of course, is not only far from perfect but also offers no guarantee against major conflict among the world ’s great powers. Even under the umbrella of unipolarity, regional conflicts involving the large powers may erupt. War could erupt between China and Taiwan and draw in both the United States and Japan. War could erupt between Russia and Georgia, forcing the United States and its European allies to decide whether to intervene or suffer the consequences of a Russian victory. Conflict between India and Pakistan remains possible, as does conflict between Iran and Israel or other Middle Eastern states. These, too, could draw in other great powers, including the United States. Such conflicts may be unavoidable no matter what policies the United States pursues. But they are more likely to erupt if the United States weakens or withdraws from its positions of regional dominance. This is especially true in East Asia, where most nations agree that a reliable American power has a stabilizing and pacific effect on the region. That is certainly the view of most of China ’s neighbors. But even China, which seeks gradually to supplant the United States as the dominant power in the region, faces the dilemma that an American withdrawal could unleash an ambitious, independent, nationalist Japan.

### 4

#### China is assuming leadership role over new nuclear power innovation, commercialization, and exports.

Froggatt 6/6/12

http://nuclearexportcontrols.blogspot.com/2012/06/chinese-nuclear-goes-global.html

Chinese Nuclear Goes Global

In the space of a couple of decades, China has become a major player in the global nuclear sector. With by far the largest number of reactors under construction of any country in the world, and further reactors on order, it is seen as a vital market for uranium, a testing ground for new reactors designs and, increasingly, a potential partner for nuclear developments across the world. But the Fukushima crisis in Japan has had a significant – and under reported – impact on Chinese nuclear developments, triggering a freeze on the start of new construction, a re-consideration of the safety standards of domestic designs and unprecedentedly visible opposition to the building of new, inland nuclear plants. While an announcement was made by the State Council last week that the ban will be lifted shortly, the events of the last 15 months will still result in a failure to meet China’s current five-year plan on nuclear development and, depending on how things develop, its 2020 objectives as well. The global clout of China’s nuclear sector is such that the impacts of its decisions stretch far beyond the nation’s borders. From France to Namibia, from reactor designers to uranium-mining firms, the industry will be waiting anxiously for news from China. China came relatively late to the civil nuclear industry: it started construction of its first commercial reactor only in 1985. As of May this year, the country had 16 reactors in operation, which in 2011 provided 1.85% of the country’s electricity, the lowest share of any country with nuclear power. But, despite its late arrival to the party, China was – until Fukushima – proving an energetic player, with an impressive recent history of construction starts. Today, it has 26 reactors under construction, representing 39% of global new build. But Fukushima changed the picture. Three days after the 2011 tsunami triggered equipment failures at the Japanese plant, Xie Zhenhua, vice chairman of China’s top economic planning body, the National Development and Reform Commission, was quoted by Bloomberg as saying “[e]valuation of nuclear safety and the monitoring of plants will be definitely strengthened.” Then, an account of a meeting of the State Council, chaired by premier Wen Jiabao, in mid-March 2011 included the following: “We will temporarily suspend approval of nuclear-power projects, including those in the preliminary stages of development....We must fully grasp the importance and urgency of nuclear safety, and development of nuclear power must make safety the top priority.” As a result, a new China National Plan for Nuclear Safety with short-, medium- and long-term actions was ordered, and the construction of new plants suspended pending its approval. A May 31 meeting of the State Council is said to have given provisional approval to both the safety plan and a set of goals for 2020. If implemented, these proposals will require some of the existing reactors to undertake safety modifications to meet new standards on earthquakes and flooding. However, it is still unclear when construction on new projects might begin again, or when the proposal for a new safety standard will be released for public comments. It is suggested the delay has been partly caused by uncertainty over the strategic direction for future reactor designs, and in particular whether future construction would be dominated by China’s second-generation CPR 1000 design or move towards greater deployment of third-generation designs from overseas. China has not yet fully developed its own third-generation design and would have to rely initially on the European Pressurized Water Reactor (EPR) or the American AP1000 reactor. The potential move towards much greater, or even total, dependence on the most modern design is affected by conflicting concerns: the higher costs of the international design and greater confidence in the safety standard. Tange Zede, a member of China’s State Nuclear Power Technology Corporation (SNPTC), was reported in Nuclear Intelligence Weekly as saying the domestically designed CPR-1000 could not even meet the national safety standards issued in 2004, let alone the most up-to-date international standards. Zede stated that “unless the constructed second generation reactors are renovated, they should not be allowed to load fuel and start operation.” Historically, international nuclear vendors have sought to construct their latest models in China. Russia’s reactor-exporting company Atomstroyexport provided its latest design, the AES-91, and equipment for units one and two at Jiangsu province’s Tianwan power plant, which was completed in 2007. It is said that two further reactors will be commissioned, but no date has been set for construction. Atomic Energy of Canada Ltd (AECL) built two of its heavy-water reactors at theQinshan phase-three plant in Zhejiang, on China’s east coast, but despite the fact these were completed in 2002 and 2003 respectively, no further orders have been placed. Finally, the French utility EDF was engaged in the construction of two reactors at Daya Bay, south China, which were completed in 1994 using technology from French firm Framatome, now AREVA. Two further reactors at phase one of the Ling Ao plant in Shenzhen, also in the south, were built using Framatome equipment, though with a larger domestic contribution. But by the time it came to phase two, a domestic Chinese design was used. Today, the world’s major international reactor vendors, notably AREVA and Westinghouse, are building their most advanced designs in China. In the case of Westinghouse, the AP1000 is the company’s flagship third-generation design, and China is its only sale. The contract, worth around US$5.3 billion (34 billion yuan), is for construction of four reactors, including transfer of both reactor technology and back-end services, particularly waste management. Construction of these four units, two at Sanmen in Zhejiang province and two at Haiyang, further north in Shandong province, is under way, though delays of six to 12 months are reported. For the first unit at Sanmen, the slippage is said to be due to design changes post-Fukushima. For the remaining three units, supply-chain issues relating to the increased use of local components are blamed. If reports are accurate, use of domestic parts across the series of the four reactors will increase from 30% to 70%, and any future reactors will be built with Chinese components alone. The estimated construction costs of the AP1000 are also quoted as rising. In 2009, it was said they would cost US$1,940 per kilowatt (12,400 yuan), but the latest figures range from US$2,300 to US$2,600 per kilowatt. While this is far below the estimated costs of any other third-generation project, globally it is higher than the reported costs for China’s CPR 1000 at US$1,800 per kilowatt. In November 2007, AREVA announced the signing of an €8 billion (US$11.6 billion) contract with China Guangdong Nuclear (CGN) for the construction of two EPRs in Taishan, in south China’s Guangdong province, and said it would provide all the materials and services required to operate them. The Taishan project is owned by Guangdong Taishan Nuclear Power Joint Venture Company Limited, a hook-up between EDF (30%) and CGN. First concrete was poured in October 2009, and unit one was expected to begin operating in 2013, followed by a second unit in 2014. Two other EPR reactors are being built in Europe, one in Finland and one inFrance, but are both running at least 100% over budget and four to five years behind schedule. The delays are such that the Chinese reactors may now be operational before those being built in Europe. Completing the EPRs in China to time and budget will be a vital test for AREVA, which the company will hope can offset its bad experience in Europe. Troubles closer to home are said to be contributing to its lack of sales in other parts of the world, such as the United Arab Emirates. China is also stepping up its nuclear export activity. The most consistent example is Pakistan, which China has supplied with equipment for two reactors at Chashma in Punjab. Construction of units three and four reportedly began at the end of 2011, with China Zhongyuan Engineering as the general contractor and China Nuclear Industry No. 5 Construction Company as the installer. Finance is also coming from China. It doesn’t stop with Pakistan. In recent months, the Chinese industry has been linked with many other projects around the world. The visit of Turkey’s prime minister, Recep Tayyip Erdogan, to Beijing in April was used to discuss China’s assistance for a proposed nuclear-power station at the Turkish city of Sinop. Other possible deals include the sale of a plant to South Africa and a nuclear co-operation agreement in Saudi Arabia, while there has been speculation over potential Chinese ownership of the energy company Horizon Nuclear Power, established by utilities Eon and RWE to build nuclear plants in the United Kingdom, but now up for sale. To fuel the country’s expectation of a rapidly growing nuclear sector, two companies – CGN and China National Nuclear Corp (CNNC) – are permitted to import uranium. To meet official fuel requirements, they are set to increase imports from around 3,600 tonnes per year in 2010 to some 10,000 tonnes in 2020. Of the two firms, CGN has been the more successful over recent years and has signed a number of deals. In November 2010, its leaders inked a 10-year agreement for the supply of 24,200 tonnes of uranium from Kazakhstan’s Kazatomprom. In addition, CGN and Chinese equity funds each have a 24.5% share in AREVA’s mines in Namibia, South Africa and the Central African Republic, which could provide an additional 40,000 tonnes of uranium starting in 2022. CGN signed another deal in November 2010 with Cameco of Canada for the supply of 13,000 tonnes of uranium through 2025. More recently, in February this year, CGN completed a takeover of Extract Resources, which is developing Africa’s largest known uranium resource. CGN, together with the China-Africa Development fund paid €2.2 billion (US$2.7 billion) for the company and associated companies, such as Kalahari Minerals. The CGN activity contrasts starkly with the limited success of CNNC, which has secured little supply outside of China despite attempts in Mongolia, Kazakhstan and Niger. Though, in light of its ambition to secure 2,500 tonnes of uranium a year by 2015, CNNC is likely to increase its activity in the market, and there are suggestions it might take a stake in AREVA’s new project in Niger. Prior to the accident at Fukushima, China’s 12th Five-Year Plan anticipated 43 gigawatts of nuclear power in operation by the end of 2015. Meeting this target would have required the completion of all reactors under construction at the end of 2010, plus those scheduled to start in 2011. It therefore cannot be met. A report on implementation of the 12th Five-Year Plan, published by the China Electricity Council in March estimated that China’s nuclear-generating capacity would reach 80 gigawatts by 2020. But the suspension of the start of new construction and the uncertainty over the strategic direction for future designs make meeting this 2020 target highly unlikely. Public opinion could also pose an obstacle. In a poll carried out by research agency Ipsos MORI after Fukushima, 42% of those surveyed in China were supportive of nuclear power – but 48% were opposed. It is also reported that public opposition and environmental concerns have led to the delay in construction of three inland nuclear power sites. In March this year, oppositionto the proposed Pengze power plant in Jiangxi erupted into the public sphere on a scale not previously seen when local authority documents critical of the project were posted on the internet. Given nuclear’s small contribution to China’s electricity supply, a doubling or trebling of new-build capacity won’t significantly alter the electricity mix or, for that matter, Chinese emission trajectories. However, the future direction of its choice of reactor design domestically could fundamentally change the number of orders for a particular manufacturer. This is something global companies are well aware of, though they should note that – so far – China has not deployed any foreign reactor design at scale, rather ordering a couple and then largely carrying on with domestic designs. Fukushima has already had a significant impact on the Chinese nuclear sector and, more than 15 months after the accident, the moratorium on new construction starts remains in place. The questions are now, one, will future orders be placed at the pre-Fukushima rate? And, two, what new design safety standards are required? The answers to these questions are not only eagerly awaited in Paris and Tokyo, the homes of AREVA and Westinghouse, but also uranium suppliers in Africa and prospective nuclear builders in the United Kingdom, Turkey and Saudi Arabia, to name but a few. China’s nuclear developments probably matter more to the rest of the world than they do to China.

#### US regulatory climate causing shift to China to develop next generation reactors

Hall-Energy Digital-1/23/12

US to Explore Small Nuclear Reactor Designs

<http://www.energydigital.com/green_technology/us-to-explore-small-nuclear-reactor-designs>

In the wake of the Fukushima nuclear power plant disaster last year, technology companies are stepping up to develop safer, more economical nuclear reactors in an attempt to wean dependence on conventional, large-scale nuclear used all over the world today. After Bill Gates took his concepts to China—where regulations on nuclear plants are less stringent and innovations gain support—the DOE's announcement is a positive step in spurring more US manufacturing. “America’s choice is clear - we can either develop the next generation of clean energy technologies, which will help create thousands of new jobs and export opportunities here in America, or we can wait for other countries to take the lead,” said Energy Secretary Steven Chu. “The funding opportunity announced today is a significant step forward in designing, manufacturing, and exporting U.S. small modular reactors, advancing our competitive edge in the global clean energy race.”

#### Revitalizing the US industry undermines Chinese export markets

Ferguson 10—President of the Federation of American Scientists. Adjunct Professor in the Security Studies Program at Georgetown University and an Adjunct Lecturer in the National Security Studies Program at the Johns Hopkins University. (Charles, Nuclear Energy and Nonproliferation: The Implications of Expanded Nuclear Energy in Asia, in Asia’s Rising Power and America’s Continued Purpose, Ed Tellis, Marble and Tanner, 146)

Although China began to develop commercial nuclear energy a decade or two after Japan and South Korea, Beijing is emulating the course charted by Tokyo and Seoul. If China achieves its ambitious goal of more than one hundred operating commercial reactors by 2030, it will likely become the state with the most nuclear power plants in the world unless a major surge in construction occurs in the United States. China may also emerge by then as a major supplier of nuclear technologies and may garner clients in Africa, the Middle East, and Southeast Asia.

Chinese nuclear exports key to soft power

Blank-prof strategic studies institute, Army War College-6/16/10

China puts down marker in nuclear power race<http://www.atimes.com/atimes/China_Business/LF16Cb01.html>

Therefore, China's recent nuclear exports to Pakistan and the future of its nuclear exports in general need to be examined in these three contexts. The first context is that of the overall growth of the assertiveness of China's diplomacy in general and efforts to use nuclear power and military instruments like missiles as sources of influence abroad. In the case of exports to Pakistan, a second context is the long-standing geopolitical rivalry among India, China and Pakistan in which China's "all-weather" friendship with Pakistan has been a deliberate and conscious Chinese strategy to inhibit the growth of Indian power. Finally, we must keep in mind that China is not only an exporter of nuclear energy, it also is a consumer of that energy and so it will be a key market for other exports from the likes of Russia, the United States, France, South Korea, and Japan. As an importer, it obviously will welcome the rivalry of exporters who wish to sell to it so that it can obtain more favorable terms. However, as an exporter of nuclear energy and a power that wants to export more of it for both economic and political gain, it cannot afford to let either its rivals outpace it in Asia or in other areas that China deems as essential to the pursuit of its larger strategic goals.

And, fast expansion of domestic nuclear power necessary to reduce carbon emissions and avoid environmental harms of coal dependence

Boey-Research Analyst at the Energy Studies Institute, National University of Singapore-2/27/12

<http://www.japanfocus.org/-Augustin-Boey/3698>

Nuclear Power and China’s Energy Future: Limited Options

China’s energy needs, climate change and nuclear power As a growing superpower, China has been making its presence felt in a variety of international arenas. It has long been the world’s most populous country, with over 1.3 billion people. China’s burgeoning economy, with annual GDP growth around ten percent since the 1980s, allowed it to surpass Japan in 2010 to become the world’s second largest economy after the US. As the “world’s factory,” China has become the world’s largest emitter of carbon dioxide since overtaking the US in 2006 in annual volume of emissions, although China’s carbon dioxide emitted per capita remains significantly lower than that in the US. Since China’s economic opening and reform program in the 1970s, the demographic, economic and environmental shift that has occurred has necessarily built upon a commensurate growth in electricity demand. Most of the electricity produced in China has thus far been supplied by coal, which provided 2,940,525 GWh of electricity in 2009 and constituted almost 80 percent of the total electricity generation mix.3 However, the combustion of coal also produces a large quantity of greenhouse gases and other pollutants and is as such a distinctly environmentally-unfriendly fuel, particularly as it is used in conventional coal-burning power plants. With climate change becoming an increasingly important issue on environmental and political fronts, China’s energy policy must therefore simultaneously confront the twin challenges of ensuring energy security and climate change mitigation. Amongst China’s energy security issues is the pressing need to ensure that domestic power demands are met. China’s power generation capacity has increased rapidly, as has its electricity infrastructure, but this growth in supply has only unevenly met the growing demands for electricity.4 This growth is predicted to continue in coming decades – the International Energy Agency has projected that China’s total electricity generation will increase by a compound annual growth rate (CAGR) of 3.9 percent from 2009 to 2035.5 Of this total, coal is projected to increase by a CAGR of 2.5 percent while nuclear power, which has a much smaller base, is projected to increase by a CAGR of 10.6 percent in the same period.6 The need to meet the sustained increase in electricity demand is unlikely to let up as China’s economy continues to grow. This represents a perennial energy policy challenge.7 Recent reports indicate that China’s power supply in 2012 will again be strained by the low capacity additions relative to growth in power consumption.8 China’s unrelenting consumption of electricity is complicated by its quest for energy self-sufficiency. While China does possess substantial fossil fuel reserves, and indeed used to export oil and coal, it has become a net importer of fossil fuels and has extended its geopolitical reach in part to feed its growing power demands.9 The government’s decision to continue its nuclear power programme can thus be seen as a combination of realism about the growing requirements of its electricity grid and belief that the viability and safety of nuclear power technology has not been seriously compromised by the Fukushima nuclear disaster which, unlike Chernobyl or Three Mile Island, was triggered by natural disaster rather than human error.10 Nuclear power has also been legitimized in China’s public policy due to its favourable greenhouse gas profile. Nuclear power produces almost zero carbon directly and its substitution for fossil fuel plants reduces the net greenhouse gas emissions emanating from electricity production.11 Greenhouse gas emissions in China are largely produced by the power sector due to its heavy use of coal.12 China’s need to quickly reduce carbon emissions in power generation is highlighted by the government’s objective to reduce the ratio of GDP to carbon dioxide emissions by 40-45 percent between 2005 and 2020.13 Furthermore, the heavy reliance upon coal fired power generation causes immediate local health and environmental problems. Pollutants released from coal combustion have been identified as causing the rise of respiratory illnesses and has precipitated increased occurrences of acid rain and a consequent degradation in soil quality.14 These factors enhance nuclear power’s appeal as a means to reduce greenhouse gas emissions and improve environmental quality.

China will undercut US leadership on non-proliferation absent strong domestic nuclear power industry

Cunningham-Policy Analyst for Energy and Climate, American Security Project-10/12

Small Modular Reactors: A Possible Path Forward for Nuclear Power

<http://americansecurityproject.org/ASP%20Reports/Ref%200087%20-%20Small%20Modular%20Reactors.pdf>

Not only does the U.S. “export” high safety standards in its reactor designs, but through 123 Agreements it requires rigorous non-proliferation measures as a requirement of doing business with American nuclear companies. With China expected to more than triple the number of installed nuclear reactors between 2011 and 2015, the U.S. may become less relevant in ensuring adequate safeguards against weapons proliferation. 6 A strong domestic nuclear industry will better position the U.S. to lead on this issue.

US pushes inequitable export restrictions---undermines nonproliferation system

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Letter from Pakistan: How an unfair non-proliferation regime undermines nuclear security

<http://thebulletin.org/web-edition/op-eds/letter-pakistan-how-unfair-non-proliferation-regime-undermines-nuclear-security>

In a September 1967 speech, V.C. Trivedi, the Indian Ambassador to an early UN arms control effort known as the Eighteen Nations Committee on Disarmament, said that developing countries could tolerate nuclear weapons apartheid, but not an atomic apartheid that prevented them from attaining the economic progress that civilian nuclear power can bring. Regrettably, today's global nonproliferation architecture is being applied with such selectivity that it can truly be called the neo-nuclear apartheid. That architecture not only works against the peaceful use of nuclear energy in developing countries, it also undermines global nuclear security. The Nuclear Security Summit process -- which in recent years has been a focus of US nuclear proliferation policy -- professes to tackle robust concerns. The Seoul summit held earlier this year, for example, addressed not just nuclear security, but nuclear safety, the integrity of the Nuclear Non-Proliferation Treaty (NPT), and the nuclear programs of Iran and North Korea. But the positive elements of the Nuclear Security Summit initiative pale in comparison with the selective application of the nonproliferation regime to states that seek to create a nuclear power industry. The inequity of the nonproliferation regime is illustrated by its disparate treatment of developing countries. India rejected the NPT and tested nuclear weapons -- but still managed to be treated well under the nonproliferation regime, with the Nuclear Suppliers Group granting it a waiver to trade in nuclear materials in 2008. Because it is a signatory of the NPT, Iran has limited access to peaceful nuclear technology through Russia, even though Tehran stands accused of covertly attempting to develop nuclear weapons. And North Korea -- a nuclear-armed state that withdrew from the NPT and threatens its neighbors -- has been offered help with civilian power reactors during negotiations over its nuclear weapons program. Meanwhile, Pakistan -- which has gone to great lengths to support the global nuclear nonproliferation regime -- has been denied membership in the Nuclear Suppliers Group, a decision that greatly hampers Islamabad's efforts to develop a commercial nuclear energy program. Though the NPT is considered the pivot point of the nonproliferation system, the nuclear states outside the treaty are major players in the international security system, and they affect the world's nuclear balance. It will be difficult for the Nuclear Security Summit process and other similar initiatives to gain global acceptance until the nuclear nonproliferation regime is applied with at least a semblance of fairness. If the overall nonproliferation system is to become equitable and therefore effective, it must allow the non-NPT nuclear weapon states to participate in nuclear export-control cartels, so long as they contribute to controlling the proliferation of nuclear materials. Such a policy change would, as a byproduct, create transparency in the nuclear programs of non-NPT states and thereby enhance overall strategic stability. The Pakistan example. Few outside of South Asia are familiar with the tribulations Pakistan has faced as it has attempted to support international nuclear security and grow a nuclear power industry. Despite media and political claims to the contrary, Pakistan has supported the Nuclear Security Summit initiative and encouraged international cooperation and voluntary actions to ensure nuclear security. Furthermore, Pakistan observes nonproliferation norms in their letter and spirit. Islamabad's nuclear security and safety structure rests on four pillars: a robust command and control system under the National Command Authority, a thorough safety and security regulatory regime, a comprehensive system of export control management, and an extensive program of international cooperation. Since the 2010 summit in Washington, Islamabad has taken eight steps to buttress the Nuclear Security Summit initiative: To prevent non-state actors from gaining access to nuclear materials, Islamabad vigorously enforces UN Security Council Resolution 1540 PDF on WMD proliferation. The Pakistan Institute of Engineering and Applied Sciences offers a specialization in nuclear security, while the School of Nuclear Radiation Safety conducts courses in nuclear safety. During the 2010 summit, Pakistan, among other countries, announced that it would host a "center of excellence" -- that is, a collaborative hub where innovative approaches will be developed to strengthen the nuclear security process. In April 2012, Islamabad announced that it has opened a Strategic Plans Division Training Academy, and at the Seoul Summit in March, Pakistan's former Prime Minister Yousuf Raza Gilani offered nuclear security training to the international community. To prevent nuclear terrorism, Pakistan constructively participates in Global Initiative to Combat Nuclear Terrorism-related events and has helped develop guidelines on nuclear-detection architecture. In a significant development, Pakistan has announced it will add 8,000 highly skilled officials to its team of security professionals, including the creation of a special response force. The first batch of security personnel graduated from the Strategic Plans Division Training Academy in April 2012. This special response force, which supplements an existing SPD security force, has been termed a "qualitative milestone in … rapid response capability" for safeguarding Pakistan's strategic assets. Islamabad and the IAEA conduct joint seminars and workshops on nuclear security. Pakistan supports the spirit of the Proliferation Security Initiative by participating in its exercises as an observer. The United States launched this initiative in 2003 as an effort to stop trafficking of weapons of mass destruction, their delivery systems, and related materials to and from states and non-state actors of proliferation concern. Through its Exports Control Act, Pakistan continues to strengthen UNSC Resolution 1540 via measures that include a recent revision of its national control list to support the global efforts to prevent proliferation of weapons of mass destruction. To augment its export controls, Pakistan is deploying special nuclear material portals at key border points to deter and detect illicit trafficking of nuclear and radioactive materials. Despite this exemplary record, Pakistan's nuclear power industry has faced severe challenges in dealing with the Nuclear Suppliers Group, which, because of Pakistan's limited cooperation with China in nuclear matters, would not grant membership in the cartel. (In this realm, Pakistan started cooperating with China in 1986, before China participated in the NSG.) A refusal to let Pakistan participate in the export control cartels, and especially the NSG, would seriously limit the country's efforts to meet its growing energy needs through nuclear energy. According to Pakistan's Energy Security Plan of 2050, its needs to build nuclear power plants that will produce 8,800 megawatts of electricity within the next two decades. Participation in the Nuclear Suppliers Group is essential if Pakistan is to be able to acquire the equipment and expertise needed to build the nuclear plants that will fill this power gap. India -- which, like Pakistan, has not signed the NPT -- was given an exemption by the NSG, and it has been able to advance its civilian nuclear power industry, relieving pressure on its challenged electric utility system and cementing strategic and economic partnerships with other countries. This differential treatment of India and Pakistan under the international nonproliferation regime is simply unfair. Equity means security. The legacy of the Seoul Summit is a determination among state participants that their commitments toward nuclear security will remain "voluntary" until the states find the world nonproliferation regime equitable. The glaring inequities of the nonproliferation regime keep countries like Pakistan from meeting their energy needs and, thereby, harm their overall development. The unfairness of the nonproliferation regime is also keeping the world community from coming together around a common set of verifiable nuclear security standards. The sooner the nuclear nonproliferation regime ends its neo-nuclear apartheid policies and puts all countries on an equal footing, the more stabilizing the nonproliferation regime will become, and the safer the world will be.

#### Proliferation causes nuclear war.

Horowitz 9 (Michael, Professor of Political Science @ University of Pennsylvania (Former Emory debater and NDT Champion), *The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?*, Journal of Conflict Resolution, Volume 53 Number 2, April 2009 pg. 234-257]

Learning as states gain experience with nuclear weapons is complicated. While to some extent, nuclear acquisition might provide information about resolve or capabilities, it also generates uncertainty about the way an actual conflict would go—given the new risk of nuclear escalation—and uncertainty about relative capabilities. **Rapid proliferation** may especially heighten uncertainty given the potential for reasonable states to disagree at times about the quality of the capabilities each possesses.2 What follows is an attempt to describe the implications of inexperience and incomplete information on the behavior of nuclear states and their potential opponents over time. Since it is impossible to detail all possible lines of argumentation and possible responses, the following discussion is necessarily incomplete. This is a first step. The acquisition of nuclear weapons increases the confidence of adopters in their ability to impose costs in the case of a conflict and the expectations of likely costs if war occurs by potential opponents. The key questions are whether nuclear states learn over time about how to leverage nuclear weapons and the implications of that learning, along with whether actions by nuclear states, over time, convey information that leads to changes in the expectations of their behavior—shifts in uncertainty— on the part of potential adversaries. Learning to Leverage? When a new state acquires nuclear weapons, how does it influence the way the state behaves and how might that change over time? Although nuclear acquisition might be orthogonal to a particular dispute, it might be related to a particular security challenge, might signal revisionist aims with regard to an enduring dispute, or might signal the desire to reinforce the status quo. This section focuses on how acquiring nuclear weapons influences both the new nuclear state and potential adversaries. In theory, system wide perceptions of nuclear danger could allow new nuclear states to partially skip the early Cold War learning process concerning the risks of nuclear war and enter a proliferated world more cognizant of nuclear brinksmanship and bargaining than their predecessors. However, each new nuclear state has to resolve its own particular civil–military issues surrounding operational control and plan its national strategy in light of its new capabilities. Empirical research by Sagan (1993), Feaver (1992), and Blair (1993) suggests that viewing the behavior of other states does not create the necessary tacit knowledge; there is **no substitute** for **experience** when it comes to handling a nuclear arsenal, even if experience itself cannot totally prevent accidents. Sagan contends that **civil–military instability** in many likely new proliferators and pressures generated by the requirements to handle the responsibility of dealing with nuclear weapons will skew decision-making toward **more offensive strategies** (Sagan 1995). The questions surrounding Pakistan’s nuclear command and control suggest there is no magic bullet when it comes to new nuclear powers’ making control and delegation decisions (Bowen and Wolvén 1999). Sagan and others focus on inexperience on the part of new nuclear states as a key behavioral driver. **Inexperienced operators** and the bureaucratic desire to “justify” the costs spent developing nuclear weapons, combined with organizational biases that may favor escalation to avoid decapitation—the “**use it or lose it**” mind-set— may cause new nuclear states to adopt riskier launch postures, such as **launch on warning,** or at least be perceived that way by other states (Blair 1993; Feaver 1992; Sagan 1995).3 Acquiring nuclear weapons could alter **state preferences** and make states more likely to escalate disputes once they start, given their new capabilities.4 But their general lack of experience at leveraging their nuclear arsenal and effectively **communicating** nuclear threats could mean new nuclear states will be more likely to **select adversaries poorly** and to find themselves in disputes with resolved adversaries that will reciprocate militarized challenges. The “nuclear experience” logic also suggests that more experienced nuclear states should gain knowledge over time from nuclearized interactions that helps leaders effectively identify the situations in which their nuclear arsenals are likely to make a difference. Experienced nuclear states learn to select into cases in which their comparative advantage, nuclear weapons, is more likely to be effective, increasing the probability that an adversary will not reciprocate. Coming from a slightly different perspective, uncertainty about the consequences of proliferation on the balance of power and the behavior of new nuclear states on the part of their potential adversaries could also shape behavior in similar ways (Schelling 1966; Blainey 1988). While a stable and credible nuclear arsenal communicates clear information about the likely costs of conflict, in the short term, nuclear proliferation is likely to increase uncertainty about the trajectory of a war, the balance of power, and the preferences of the adopter.

China key to global emissions reductions-comparatively more important than the plan

Ekstrom-Joint Program on the Science and Policy of Global Change MIT-5/24/12

Report: China’s actions are crucial on climate change

http://web.mit.edu/newsoffice/2012/china-focus-addressing-climate-change.html

As climate negotiators wrap-up talks in Bonn, Germany, this week, a major point of contention is who needs to do what to slow global warming. Nations such as China and the United States have held back from making substantial emission reduction pledges in the past, as both nations waited for the other to act. But new research out of MIT shows the importance of all major nations taking part in global efforts to reduce emissions — and in particular, finds China's role to be crucial. The report — titled "The Role of China in Mitigating Climate Change" — published in the journal Energy Economics, compares the impact of a stringent emissions reduction policy with and without China's participation. It finds that China's actions are "essential." "As the largest greenhouse gas emitter in the world, without China, climate goals — like the 2 degrees Celsius target that most agree is necessary to prevent serious irreversible consequences — are out of reach," says Sergey Paltsev, the lead author of the study and the assistant director for economic research at MIT's Joint Program on the Science and Policy of Global Change. Specifically, the study finds that with China's help the global community is able to limit warming to 2 degrees Celsius, relative to pre-industrial levels. But without China, we miss that mark by about 1 degree Celsius. Not only will it be close to impossible to achieve the 2 degrees mark without China's participation, but emissions reductions will also be more expensive because substantial costs would shift to only some countries.

### 1NC Nuclear Expertise

#### Not enough workers to solve even with the plan

APS 8

APS (American Physical Society), Report from the APS Panel on Public Affairs Committee on Energy and Environment, June 2008, Readiness of the U.S. Nuclear Workforce for 21st Century Challenges, http://www.aps.org/policy/reports/popa-reports/upload/Nuclear-Readiness-Report-FINAL-2.pdf

4. The continuing, largely static, nuclear engineering workforce needs of U.S. firms have been met through a combination of hiring those trained in university nuclear engineering programs and retraining others whose original expertise was in some other field (usually mechanical engineering). Also, retirees from the nuclear Navy have played an important role. This somewhat ad hoc approach may be sufficient as long as the number of nuclear reactors remains relatively static or grows at a slow but steady pace. However, large increases in the number of reactors and/or instituting the reprocessing and recycling of spent reactor fuel are likely to make this modus operandi untenable. Dealing with that eventuality will clearly call for approaches in which government, industry, and academia each play a major role. 5. There is also likely to be a severe shortage of nuclear scientists, engineers and technicians in several sectors of government responsible for regulatory, safety, or emergency response matters – both for the nuclear power industry and for other areas of national security concern (e.g. transportation and shipping). Agencies with these responsibilities include (among others) the Nuclear Regulatory Commission (NRC), the Department of Homeland Security, the Department of Transportation, the state Port Authorities, the Department of Defense, and the Department of Energy37. It seems clear that it is mostly the responsibility of Federal and state governments to train and maintain this workforce, though there is a smaller role for private industry as well.

Status quo solves – incentives and university grants

DOE 8/9/11

Department of Energy Announces $39 Million to Strengthen University-Led Nuclear Energy Research and Development

<http://energy.gov/articles/department-energy-announces-39-million-strengthen-university-led-nuclear-energy-research>

Washington, D.C. – The Department of Energy today announced that it has awarded up to $39 million in research grants aimed at developing cutting-edge nuclear energy technologies and training and educating the next generation of leaders in the U.S. nuclear industry. Speaking at the U.S. Department of Energy’s annual Nuclear Energy University Programs (NEUP) workshop in Chicago, Assistant Secretary Peter Lyons said the grants would support up to 51 projects at colleges and universities around the country. Through NEUP, the Department is working to leverage the research and development capabilities of American universities and colleges to enhance U.S. leadership in the global nuclear energy industry. NEUP builds upon the Obama Administration’s efforts to ensure that nuclear power is a part of our clean energy mix. Through programs like NEUP, the Department is taking action to restart the nuclear industry as part of a broad approach to create new clean energy jobs and cut carbon pollution. “The Obama Administration continues to believe that nuclear energy has an important role to play as America moves to a clean energy future,” said Secretary of Energy Steven Chu. “As part of our commitment to restarting the American nuclear industry and creating thousands of new jobs and export opportunities in the process, we are investing in cutting-edge nuclear energy research projects that can develop the technologies required to advance our domestic nuclear industry and maintain global leadership in the field.” The 51 awards announced today are led by 31 U.S. universities in more than 20 states. Other universities, industry leaders, and national laboratories will serve as collaborators and research partners. The projects selected for negotiation of award cover four nuclear energy research fields including Fuel Cycle Research and Development; Reactor Concepts Research, Development and Demonstration; Nuclear Energy Advanced Modeling and Simulation; and Transformative Research.

#### More evidence – cash for workforce now increases nuclear expertise

Gene Aloise, Director, Natural Resources and Environment, GAO, April 12, MODERNIZING THE NUCLEAR SECURITY ENTERPRISE: Strategies and Challenges in Sustaining Critical Skills in Federal and Contractor Workforces, http://www.gao.gov/assets/600/590488.pdf

According to NNSA officials, these five metrics are tracked very closely by M&O contractors at all sites, and attrition, employment acceptance rates, and pay and benefits comparability data are systematically collected at regular intervals enterprisewide. If any of these metrics indicate a problem in retention, for example, NNSA officials told us, action would be taken to address it. For example, these metrics were monitored very closely by NNSA and the M&O contractors at Los Alamos National Laboratory and Lawrence Livermore National Laboratory during their 2006 transition to a new M&O contract with less generous retirement and medical benefits. There were concerns that this change could lead to a spike in attrition among highly skilled staff that could in turn lead to difficulties in the laboratories meeting deadlines on project deliverables. Similarly, NNSA is now carefully watching the same metrics at Sandia National Laboratories because the M&O contractor substantially cut future retirement benefits that took effect for those employees who remained at the lab beyond the end of 2011. If the metrics indicate greater attrition than expected, the laboratory could adjust its recruiting strategies to hire more staff.

#### Incentives now solve the advantage enough

Gene Aloise, Director, Natural Resources and Environment, GAO, April 12, MODERNIZING THE NUCLEAR SECURITY ENTERPRISE: Strategies and Challenges in Sustaining Critical Skills in Federal and Contractor Workforces, http://www.gao.gov/assets/600/590488.pdf

Some of the human capital challenges facing the enterprise are beyond the control of NNSA and its M&O contractors, and in these cases, NNSA has authorized increased compensation to help the sites acquire or retain the personnel they require. The site locations are fixed, and site staff cannot change the number of U.S. citizens completing graduate science and technology programs. Similarly, NNSA and its contractors have no choice but to adapt to the increased mobility of their staff resulting from the shift to a defined contribution retirement systems. To mitigate these challenges, NNSA and its contractors continue to offer financial incentives to recruit and retain critically skilled employees, with competitive starting salaries. The scale of these financial incentives can vary by location and position, but NNSA reported that this strategy has thus far been adequate for recruiting and retaining the talent they need.

#### The US will prioritize weapons no matter what – plan not key to nuclear primacy

Elaine M. Grossman 12, Global Security Newswire, “U.S. Warhead Upkeep to Get Top Priority if Deeper Budget Cuts are Imposed”, March 8, <http://www.nti.org/gsn/article/us-warhead-upkeep-get-top-priority-if-deeper-budget-cuts-are-imposed/>

The U.S. National Nuclear Security Administration would give highest priority to maintaining warheads fielded on the nation’s arsenal of ICBMs, ballistic missile submarines and bomber aircraft if automatic budget cuts affect the agency next year, the top NNSA official said on Thursday (see GSN, Feb. 17).

“If there is a reduction in this area, the thing we are going to focus on first and foremost is doing the surveillance work … on our existing stockpile [and ensuring] that today’s deterrent is taken care of,” said Thomas D’Agostino, the agency administrator. “Then we will work with the Defense Department to understand their priorities.”

The 2011 Budget Control Act mandates a roughly $450 billion cut in defense spending over the next decade, and that amount could more than double if lawmakers do not by 2013 reverse the legislation’s call for $1.2 trillion in additional government-wide reductions.

Whether the more drastic budget “sequester” would affect NNSA programs is uncertain, D’Agostino said.

However, given how much work the agency performs on behalf of the Pentagon, NNSA officials are planning now for the possibility that their programs will be affected by any new round of significant federal budget cuts. A portion of the agency’s annual spending also comes directly from Defense Department coffers, according to the White House.

The nuclear security organization -- a semiautonomous arm of the Energy Department -- is working on three major projects to extend the service lives of U.S. nuclear warheads: The W-76, used on Navy Trident D-5 submarine-based ballistic missiles; the B-61, fielded on Air Force gravity bombs; and an effort to combine updates of the W-78, carried by Minuteman 3 ICBMs, and the W-88, a second weapon for Navy Trident missiles.

Under the service life extension programs, NNSA officials work with their Defense Department counterparts to refurbish or replace aging components of decades-old nuclear arms. The effort is aimed at keeping the U.S. stockpile safe and effective without nuclear explosive testing, which Washington has by policy set aside in a moratorium dating to the early 1990s.

Along with major overhauls for different weapon types, the nuclear agency also regularly checks deployed warheads to assure that they remain in working order.

A bipartisan panel of House and Senate lawmakers late last year failed to agree on a package of possible spending cuts and tax hikes that could have averted the Budget Control Act’s requirement for an automatic sequester, beginning in 2013. Congress continues to debate potential actions that might be taken to avoid the deeper military cuts, which Defense Secretary Leon Panetta has warned could have a "devastating" effect on weapons acquisition programs, defense personnel and military operations (see GSN, Nov. 15, 2011).

If a budget sequester triggers “a dramatic change in [military] force structure, it could impact what systems we work on,” D’Agostino told reporters at a Defense Writers Group question-and-answer session.

Under a scenario in which the nuclear agency budget is reduced, D’Agostino said he would have to weigh possible delays in the three major warhead-overhaul efforts.

“We will work with the Defense Department to understand their priorities … to figure out which of these three priority projects can we defer [or] push back the date on, and [decide] what’s more important,” he said.

At this time, “I don’t want to tell you what gets cut because I don’t know what” programs might be affected, D’Agostino said. “I don’t want to make any speculation that we’re going to take a $500 million cut and therefore the last $500 million is such-and-such. I don’t know that we would take any cut at all, frankly, in sequestration.”

The NNSA budget request for fiscal 2013 calls for $11.5 billion in funding, of which $7.6 billion would be used to “maintain a safe, secure, and effective nuclear deterrent.” The nuclear deterrent funds constitute a 5 percent hike from current spending levels but $372 million less than the administration had projected in 2010. The next budget year begins on Oct. 1.

The NNSA administrator said lawmakers have not yet weighed in on their priorities for his agency should a budget sequester materialize. However, he made clear that he could not accept any change in what he believes to be his most important national security responsibilities.

“We feel very strongly that the No. 1 priority is taking care of today’s stockpile,” D’Agostino said. “I would not be an advocate of saying I would rather do a life-extension on a system that isn’t going to be done until 2019 or 2020, over working to make sure … the stockpile that the Defense Department is carrying around in their submarines, in missiles and maybe in depot facilities around the country” remains sound, he said.

“That’s No. 1 because that’s the material … that’s out there with the Defense Department,” D’Agostino added. “So safety of that stockpile is paramount. And the only way we’re assured safety of it is to constantly surveil it and watch it.”

Status quo solves---nuclear primacy effective

Spies 11 (Stephanie Spies is a research intern for the Project on Nuclear Issues. “Nuclear Triad: To Cut or Not To Cut?” http://csis.org/blog/nuclear-triad-cut-or-not-cut)

While ICBMs may be effective for deterring an enemy first strike, the likelihood that any country would attempt or could successfully initiate such a feat is extremely low. Proliferating countries like Iran and North Korea have demonstrated neither the capability nor the willingness to nuclear first strike the U.S., and it would clearly not be in the interest of other great nuclear powers like Russia and China to initiate such a devastating conflict. This situation may simply reveal that mutually assured destruction, or even just nuclear deterrence, is effective, or it may demonstrate only that some of the best arguments in favor of the ICBM leg of the triad are outdated. Yet, even if such a first strike is unlikely, the U.S. should not eliminate its ICBMs in the short-term. Even if such a step could ultimately convince other nations to follow suit, it would initially undermine U.S. leverage in international nonproliferation negotiations and potentially could embolden proliferating countries like Iran and North Korea who feel the U.S. is weak or vulnerable. For example, eliminating the U.S. ICBM force goes beyond current START commitments, and thus may remove any Russian incentive to pursue another round of arms control negotiations. As the budgetary debate over which defense programs to cut progresses, these questions about the effectiveness of the ICBM leg of the triad will become increasingly important. Most experts agree that ICBM modernization and replacement will be costly, making it a vulnerable target for defense cuts. However, it seems unlikely, at least in the short-term, that the U.S. will completely stop funding modernization of the nuclear triad. Not only do ICBMs, and nuclear weapons in general, have some congressional support, but any cuts that are made are unlikely to eliminate all current modernization effort. The military’s attachment to nuclear weapons, in addition to the complementary nature of the three legs of the nuclear triad, makes these deterrence weapons less susceptible to budget cuts. Still, it is worth wondering whether the status quo, without a plan for a Minuteman III replacement or accelerated modernization efforts, is worth revising if the U.S. is to maintain an effective nuclear triad.

#### No disease impact –

#### A. Burnout.

Lafee 2009

Scott, Union-Tribune Staff Writer, “Viruses versus hosts: a battle as old as time”, May 3rd, http://www.signonsandiego.com/news/2009/may/03/1n3virus01745-viruses-versus-hosts-battle-old-time/?uniontrib

Generally speaking, it's not in a virus's best interest to kill its host. Deadly viruses such as Ebola and SARS are self-limiting because they kill too effectively and quickly to spread widely. Flu viruses do kill, but they aren't considered especially deadly. The fatality rate of the 1918 “Spanish flu” pandemic was less than 2.5 percent, and most of those deaths are now attributed to secondary bacterial infections. The historic fatality rate for influenza pandemics is less than 0.1 percent. Humans make “imperfect hosts” for the nastiest flu viruses, Sette said. “From the point of view of the virus, infecting humans can be a dead end. We sicken and die too soon.”

#### (B.) Genetic diversity.

Sowell 2001

Thomas, Fellow @ Hoover Institution, Jewish World Review, “The Dangers of “Equality””, 3-5, http://www.jewishworldreview.com/cols/sowell030501.asp

People have different vulnerabilities and resistances to a variety of diseases. That is why one disease is unlikely to wipe out the human species, even in one place. An epidemic that sweeps through an area may leave some people dying like flies while others remain as healthy as horses.

#### Science Diplomacy High - state department projects

Pellerin, 9

[Cheryl, February 14, 2009, “Foreign Policy's "Smart Power" Gives Science Diplomacy a New Role,” NewsBlaze, <http://newsblaze.com/story/20090214180016tsop.nb/topstory.html>]

Secretary of State Hillary Rodham Clinton has called for a change in the State Department's approach to carrying out its foreign policy duties. This reformation will strengthen the role of science cooperation in international relations.

"American leadership has been wanting but is still wanted," she told the Senate Foreign Relations Committee during her confirmation hearing January 13. "We must use what has been called smart power, the full range of tools at our disposal - diplomatic, economic, military, political, legal and cultural - picking the right tool or combination of tools for each situation. With smart power, diplomacy will be the vanguard of foreign policy."

Smart power is a balance of hard military power with the soft power of diplomacy, development, cultural exchanges, education and science. One of the most promising of the smart power tools is science diplomacy, the practice of supporting and promoting scientific exchanges, cooperation and research between the United States and other nations ? sometimes nations that have no other diplomatic relations with the United States.

Through its Bureau of Oceans, Environment and Science (OES), the State Department engages governments, private-sector businesses, universities, nongovernmental and international organizations and individuals from every region in the world to promote scientific cooperation and education.

"We have recently concluded S&T [science and technology] agreements with Algeria, Morocco, Libya and Jordan," Jeff Miotke, OES deputy assistant secretary for science, space and health, told the House Committee on Science and Technology in April 2008. An agreement with Saudi Arabia was finalized and signed in December 2008.

"We've raised our S&T relationship with Pakistan to a higher level," he added. "With Pakistan and Egypt, we have the only two government-to-government S&T funds still in existence."

STRENGTHENING RELATIONSHIPS

In July 2008, the American Association for the Advancement of Science (AAAS), an international nonprofit scientific organization based in Washington, announced the establishment of the Center for Science Diplomacy.

The center works with the science and foreign policy communities to communicate the value of science diplomacy and identify collaborative projects that could help strengthen civil society relationships among nations, especially when official relations are strained or do not exist.

"I view our activities as twofold," Vaughan Turekian, center director and AAAS chief international officer, told America.gov. "One is operational and the other is inspirational."

Operational activities include assembling delegations and working with international collaborators to visit other countries, and developing activities with countries bilaterally.

The center works with the Jerusalem-based, nonprofit and nonpolitical Israeli-Palestinian Science Organization, for example, to support its mission of fostering cooperation between Israelis and Palestinians and promoting dialogue and interaction among scholars and scientists in those communities.

"The inspirational piece, which is critically important," Turekian said, "is to bring together experts from the different communities to think about opportunities for the types of engagement that might initiate connections or establish connections over the long term."

BUILDING BRIDGES

In November 2008, the Association of American Universities organized a tour of Iran for the presidents of six leading U.S. universities as part of an effort to identify ways to enhance science and education links between the United States and Iran.

On January 22, Iranian and U.S. scientists and senior academics met at AAAS in Washington in the latest of a series of exchange visits that comes at a time when U.S. policy toward Iran is undergoing a comprehensive review.

Another example of science diplomacy is the Iraqi Virtual Science Library, launched in 2006 to help rebuild the educational and scientific infrastructure in Iraq.

The library is a digital portal that gives 80 percent of Iraqi universities and research institutes access to millions of articles from more than 17,000 scientific and engineering journals, plus technical content and educational resources, through an Internet platform developed with Sun Microsystems. (See "U.S. Officials Launch Iraqi Virtual Science Library ( http://www.america.gov/st/washfile-english/2006/May/20060504125222lcnirellep0.8066828.html ).")

A group of AAAS scientists began the project, which is now an interagency collaboration funded by the Defense Threat Reduction Agency, the State Department, the Civilian Research and Development Foundation, donations from publishing companies and professional societies, universities and private companies.

#### Science Diplomacy fails – can’t overwhelm political conflict

Dickson, 9

[David, Director, SciDev.Net, 4 June 2009, “ The limits of science diplomacy,” SciDev, <http://www.scidev.net/en/editorials/the-limits-of-science-diplomacy.html>]

Recently, the Obama administration has given this field a new push, in its desire to pursue "soft diplomacy" in regions such as the Middle East. Scientific agreements have been at the forefront of the administration's activities in countries such as Iraq and Pakistan.

But — as emerged from a meeting entitled New Frontiers in Science Diplomacy, held in London this week (1–2 June) — using science for diplomatic purposes is not as straightforward as it seems.

Some scientific collaboration clearly demonstrates what countries can achieve by working together. For example, a new synchrotron under construction in Jordan is rapidly becoming a symbol of the potential for teamwork in the Middle East.

But whether scientific cooperation can become a precursor for political collaboration is less evident. For example, despite hopes that the Middle East synchrotron would help bring peace to the region, several countries have been reluctant to support it until the Palestine problem is resolved.

Indeed, one speaker at the London meeting (organised by the UK's Royal Society and the American Association for the Advancement of Science) even suggested that the changes scientific innovations bring inevitably lead to turbulence and upheaval. In such a context, viewing science as a driver for peace may be wishful thinking.

Conflicting ethos

Perhaps the most contentious area discussed at the meeting was how science diplomacy can frame developed countries' efforts to help build scientific capacity in the developing world.

There is little to quarrel with in collaborative efforts that are put forward with a genuine desire for partnership. Indeed, partnership — whether between individuals, institutions or countries — is the new buzzword in the "science for development" community.

But true partnership requires transparent relations between partners who are prepared to meet as equals. And that goes against diplomats' implicit role: to promote and defend their own countries' interests.

John Beddington, the British government's chief scientific adviser, may have been a bit harsh when he told the meeting that a diplomat is someone who is "sent abroad to lie for his country". But he touched a raw nerve.

Worlds apart yet co-dependent

The truth is that science and politics make an uneasy alliance. Both need the other. Politicians need science to achieve their goals, whether social, economic or — unfortunately — military; scientists need political support to fund their research.

But they also occupy different universes. Politics is, at root, about exercising power by one means or another. Science is — or should be — about pursuing robust knowledge that can be put to useful purposes.

#### Turn – alienates other countries - perceived as politicized science

Dickson, 9

[David, Director, SciDev.Net, June 2, 2009, “ Science diplomacy: the case for caution,” <http://scidevnet.wordpress.com/category/new-frontiers-in-science-diplomacy-2009/>]

 Finally, when it comes to promoting the use of science in developing countries, a terminology based historically on maximising self-interest – the ultimate goal of the diplomat – and on practices through which the rich have almost invariably ended up exploiting the poor, is likely to be counterproductive.

In other words, the discussion seemed to confirm that “science diplomacy” has a legitimate place in the formulation and implementation of policies for science (just as there is a time and place for exercising “soft power” in international relations).

 But the dangers of going beyond this – including the danger of distorting the integrity of science itself, and even alienating potential partners in collaborative projects, particularly in the developing world – were also clearly exposed.

#### Alt-Cause - Funding barriers

Redden, 8

[Elizabeth, writer, July 16, 2008, “ Science Knows No Borders. But Funders Do.,” Inside Higher Ed., <http://www.insidehighered.com/news/2008/07/16/science>]

 James A. Calvin, the interim vice president for research at Texas A&M University, referenced, by way of example, three different summits that brought together Chinese and U.S. scientists, each conference a site of vigorous discussion and debate.

And then what?

“Everyone’s excited, but then after three conferences we’re still at the same phase,” Calvin told the U.S. House of Representatives’ Subcommittee on Research and Science Education during a hearing Tuesday on the role of non-governmental organizations and universities in international science and technology cooperation

 What scientists have, Calvin explained, are “the international conferences to make the introductions. What they don’t have is the mechanism to take the next step.” When pressed by the committee chairman, Rep. Brian Baird (D-Wash.), to offer an example of what such a mechanism would look like, Calvin suggested that, in this context, a granting entity jointly funded by the Chinese and U.S. governments could promote scholarly collaboration (he cautioned, however, that he wouldn’t want to dilute existing research funds available through the National Science Foundation).

Calvin's suggestion got to the heart of two of the challenges to international scholarly cooperation highlighted during Tuesday’s hearing: the difficulty of coordinating research when partners have different governmental agencies to ask of and answer to, and, at least in the U.S. government’s case, the legal limitations on funding foreign collaborators. (“Although we do agree with the view that U.S. taxpayer funds should be used primarily to support American science, there are instances, such as in international science development activities, where we believe this limitation can impede the ability of the programs to achieve their goals,” said Alan I. Leshner, chief executive officer of the American Association for the Advancement of Science, which publishes Science.) Among the other barriers brought up were continuing challenges with visas, although, as Representative Baird pointed out, witnesses at a February subcommittee hearing reported progress on that front.

**Their internals are super slow**

**Leshner 2008** (Alan, Chief Executive Officer at the American Association for the Advancement of Science,” Written Testimony Before the Committee on Science and Technology, Subcommittee on Research and Science Education”, <http://democrats.science.house.gov/Media/File/Commdocs/hearings/2008/Research/15july/Leshner_Testimony.pdf>, 7/15)

AAAS faces the same dilemmas that the U.S. government faces: how best to balance domestic versus international interests, and how best to balance short-term versus long-term goals. International cooperation takes time to develop and nurture, particularly if it requires infrastructure development in one of the cooperating countries. **The impacts of science diplomacy** also can **take a long time to be realized, since the scientific work must be done and trust must be nurtured over time.**

#### Massive political obstacles prevent your impacts from being solved for—empirics are on our side

**Walt 10** (Stephan M. Walt, IR prof @ Harvard, total bamf “The Crisis in Global Problem Solving” walt.foreignpolicy.com/.../whats\_the\_matter\_with\_the\_world\_today//Donnie)

One way to think about the current state of world politics is as a ratio of the number of important problems to be solved and our overall "problem-solving capacity." When the ratio of "emerging problems" to "problem-solving capacity" rises, challenges pile up faster than we can deal with them and we end up neglecting some important issues and mishandling others. Something of this sort happened during the 1930s, for example, when a fatal combination of global economic depression, aggressive dictatorships, inadequate institutions, declining empires, and incomplete knowledge overwhelmed leaders around the world and led to a devastating world war. Human society is not static, which means that new challenges are an inevitable part of the human condition. New problems arise from the growth of societies, from new ideas, from our interactions with the natural world, and even from the unintended consequences of past successes. As a result, policymakers are always going to face new problems, even when the old ones remain unresolved. Moreover, a key feature of contemporary globalization is that today's problems tend to be more complex and more far-reaching, and tend to spread with greater speed. A volcano in Iceland disrupts air travel in Europe. A failed state in Afghanistan nurtures a terrorist network that eventually strikes on several continents. The Internet doesn't even exist in 1990, but now it empowers democratic forces, facilitates commerce and intellectual exchange, and enable extremists to recruit supporters and transmit tactical advice all around the world. The HIV virus emerges in Africa and eventually infects millions of human beings on every continent. Bankers in America's mortgage industry makes foolish and venal decisions, and a global financial collapse wipes out trillions of dollars of wealth and affects the lives of billions of people, some of them dramatically. Human beings in the developed world burn carbon fuels for a couple of centuries and now poor countries on the other side of the world face the risk of widespread coastal flooding (or worse) in the decades ahead. In short, the numerator of our critical ratio -- i.e., the rate at which big problems are emerging-seems to be rising. What about the denominator, our "problem-solving capacity?" Solving problems requires things: **1)** accurate knowledge, **2)** sufficient resources, and **3)** the *political capacity* to direct our knowledge and resources to the problem at hand. If you lack sufficient knowledge, you won't know what to do when a new problem comes along. (This was the problem governments faced during the Great Depression, because orthodox neo-classical economics prescribed the wrong remedies.) If you don't have sufficient resources, you might figure out what needs to be done but be unable to afford it. Finally, even when knowledge and resources are available, the responsible authorities still need to be able to make decisions and allocate resources in the prescribed manner, before the problem gets worse. I would argue that most of the problems we face in addressing current global problems are due neither to a lack of knowledge nor to insufficient resources. Our understanding of problems such as climate change, how to secure nuclear materials, the eradication of disease, budget deficits, or even the regulation of global financial markets has never been greater, and there are a vast array of non-partisan academic and other intellectual institutions to help us analyze and understand new problems. In many cases we know pretty much what needs to be done, even if there's still some uncertainty about the details. Similarly, societies around the world are wealthier than ever before, and even some of the most expensive global challenges (e.g., climate change) could be addressed with manageable effects on economic growth. Similarly, problems like the Israeli-Palestinian conflict or Iran's nuclear program are not persisting because we are too poor to address them. The real challenge lies in the declining capacity of *political institutions* to combine knowledge and resources in a timely fashion, so that problems get addressed before they become too large. This problem exists at both the global and national level, and if I am right, it suggests that the achievements of the past fifty years may be difficult to duplicate. In the worst case, in fact, even major powers will gradually be overwhelmed by a rising tide of new challenges that they have become incapable of addressing quickly and/or adequately. At the global level, for example, the various institutions established after World War II are showing clear signs of age. For example, it's been clear for years that the composition of the United Nations Security Council no longer reflects the distribution of global power-why is France a permanent member but not Germany, India, Japan, or Brazil?-but nobody agrees on the remedy for this problem so nothing is done. The replacement of GATT by the World Trade Organization was heralded as a major achievement back in the 1990s, but there has been little or no progress since the 1994 Uruguay Round -- that's 16 years ago -- and the Doha Round that began in 2001 has been an abject failure. The European Union has been a remarkable achievement in many ways, but the Greek financial crisis has exposed the downside of monetary union and Germany's new-found reluctance to subordinate its own national interests to the broader European project suggests that the EU itself may be facing a rocky future. Nor does one see much evidence of successful global coordination to the 2008-09 recession, even among the EU member states themselves, while talk of a "common foreign and security policy" remains just that -- talk. In the security realm, the global non-proliferation regime has been fraying for decades, and failed to halt the spread of nuclear weapons to countries like North Korea, Pakistan, India, Israel, and perhaps, at some point in the future, Iran. NATO is in the process of losing the war in Afghanistan, with the European participants going through the motions primarily to keep Uncle Sam happy. Nor should we forget the failure of key states or international agencies to do very much about the Rwandan genocide in 1994, the collapse of Somalia, or the downward spiral in Zimbabwe. The Israeli-Palestinian conflict, the dispute over Kashmir, and the Sudanese civil war remain unresolved as well, and does anyone seriously believe that any of them will be settled anytime soon? Similarly, the recent U.N. climate change summit in Copenhagen demonstrates that trying to get 192 countries to agree to limit greenhouse gas emissions is a fool's errand, and various well-publicized efforts to address other commons issues -- including sex trafficking, narcotics trade, money laundering, etc. -- do not seem to be making much progress either. Even the more-or-less successful nuclear security summit held in Washington last week did little more than make an initial stab at the problem, and it remains to be seen in the participating states will follow through. One sees similar trends in national politics as well. Washington D.C. has become synonymous with the term "gridlock," leading the *Economist* magazine to describe the U.S. political system as "a study in paralysis." Obama did get a health care reform package through, but it still took an enormous effort to pass a watered-down bill that pandered to insurance companies and other well-funded special interests. Meanwhile, decisive action to address climate change, the persistent U.S. budget deficit, or financial sector reform remain elusive, and it's going to get a lot tougher if the GOP makes big gains in the 2010 midterms. Nor is it reassuring to realize that the Republican Party seems to be taking its marching orders from two entertainers -- Rush Limbaugh and Glenn Beck -- the latter of whom has made it clear that he's interested in making money and [**doesn't really care**](http://www.forbes.com/forbes/2010/0426/entertainment-fox-news-simon-schuster-glenn-beck-inc.html) about public affairs at all. And let's not forget that even popular Presidents like Ronald Reagan had trouble pushing major initiatives after their first year or two in office. Hey Houston: if you're still not convinced we have a problem, consider what has happened to the state of California, whose once-vaunted universities, schools, parks and public infrastructure are visibly eroding, largely because of a wholly [**dysfunctional political system**](http://www.urbanophile.com/2009/10/08/whats-killing-california/). Nor is this problem confined to the United States. Japan's ossified political order remains incapable of either decisive action or meaningful reform; the Berlusconi-government in Italy is an exercise in *opera bouffe* rather than responsible leadership, French President Nicolas Sarkozy's early flurry of reform efforts have stalled and Mexico remains beset by drug-fueled violence and endemic corruption. Britan's ruling Labor Party is a spent force, but the rival Conservatives do not present a very appealing alternative and may even lose an election that once seemed in the bag. And so on. There are some countries where decision leadership is not lacking, of course, such as China (at one end of the size scale) and Dubai (at the other). Yet in both these cases, a lack of genuine democratic accountability creates the opposite problem. These government can act quickly and launch (overly?) ambitious long-term plans, but they are also more likely to make big mistakes that are difficult to correct them in time. Indeed, as James Scott warns in his indispensable book [***Seeing Like a State***](http://www.amazon.com/Seeing-Like-State-Condition-Institution/dp/0300078153)*,* dictatorships that combine ambitious development goals with inadequate accountability sometimes achieve impressive results in the short term but produce wide-ranging disasters in the end. In short, what I am suggesting is that our inability to cope with a rising number of global challenges is not due to a lack of knowledge or insufficient resources, but rather to the inability of existing *political* institutions to address these problems in a timely and appropriate way. Please note that I am not talking about our ability to achieve *perfect* solutions, only responses that are good enough to keep problems from getting worse and that can be improved over time as we acquire even more experience. Describing how to fix this problem is beyond the scope of a single blog post, but let me suggest three potential remedies. 1. *Less is More.* As outgoing FP editor Moises Naim suggested in his essay on [**"minilateralism,"**](http://www.foreignpolicy.com/articles/2009/06/18/minilateralism) we need to focus less on universal agreements that all states adhere to, and more on achieving agreements among a smallest number of the most important actors in a given realm. I was [**skeptical**](http://walt.foreignpolicy.com/category/one_time_tags/response_to_minilateralism) of this idea when I first heard it, but I'm increasingly convinced that he was onto something. Instead of a new Doha Round, for instance, a multilateral trade regime involving the G20 would be far easier (though not easy) to negotiate. Instead of trying for a climate agreement approved by the nearly 200 U.N. member states, focus on achieving an agreement among the top ten producers of greenhouse gases (or maybe even just the top five) and then try to bring in the rest over time. And if the bottom 100 countries never join in, it probably won't matter that much. And while we're at it, we might think about getting rid of some global institutions that don't seem to be doing much of anything anymore. I've heard at least one retired diplomat complain that nothing ever gets done because foreign offices spend all their time preparing for the next (probably meaningless) international summit. He was obviously exaggerating, but do we really need NATO, the EU, the WEU, the OSCE, the G20, the and the entire alphabet soup of existing international organizations? Might allowing some of these organizations to quietly shut their doors help us get the others to work better? 2. *Emphasize Accountability.* Both internationally and domestically, leaders have to be held accountable for mistakes. Here in the United States, about the only thing that can derail a politician's career and reputation permanently is a sex scandal (and sometimes even that doesn't even do it). The architects of major disasters like the Iraq war remain ubiquitous and respected members of the foreign policy establishment, the pundits who backed it continue to publish, and Democrats who backed the war now occupy most of the top foreign policy positions in the Obama administration. So if you curious why we seem to repeating some of the same mistakes in Afghanistan, maybe there's your answer. I'm all for hiring experienced people, but shouldn't we try to recruit people who have been right on the really big issues in the past? 3. *Raise the Salience of Institutional Reform.* Fixing dysfunctional institutions isn't sexy; it is in fact the essence of wonkish drudgery. Most of us (myself included) prefer to focus on the issues themselves and offer various prescriptions, instead of thinking about how to design political institutions that can bring knowledge and resources together for the common good. Put simply, fixing institutions is *boring.* But I'm beginning to think that we neglect it at our peril, and it is intriguing to see that [**some academics**](http://action.change-congress.org/page/s/citizensunited) are way ahead of me on this issue. In sum, unless we repair our domestic political orders and renovate the global political architecture, problems are going to pile up faster than we can fix them and the end result will not be pretty. Taken far enough, one could even imagine some sort of major global cataclysm, which would provide the opportunity -- just as World War II did -- to reshape the global order anew. But given what such an event would cost, that's a route to reform that I'd prefer to avoid.

### 1NC Warming (just get impact defense)

Status quo solves warming---epa regs

Baltimore Sun 12 (“EPA's climatic victory” http://www.baltimoresun.com/news/opinion/editorial/bs-ed-epa-climate-20120627,0,7041174.story)

Tuesday's victory by the U.S. Environmental Protection Agency in federal appeals court in the District of Columbia has once again demonstrated that the science of climate change, while famously "inconvenient," is virtually impossible for fair and reasonable people to deny. In upholding the agency's right to regulate the emission of greenhouse gases, including carbon dioxide, under a handful of cases, the three-judge panel recognized climate change as the legitimate threat to public health and safety that it is, and that the Clean Air Act gives the agency appropriate authority to regulate it. This shouldn't have come as much surprise to opponents, as the decision is in line with the Supreme Court's 2007 decision affirming the EPA had that power. It would be nice, of course, if we lived in a world where coal and other fossil fuels could be burned without regard to the pollution they emit, but that's not real life. Unfortunately, the longer the U.S. and other developed countries wait to address climate change, the less chance they can do much about it. We would be sympathetic to polluters' complaints that climate change should be addressed by Congress and not by a regulatory agency if those same opponents had not worked so hard to thwart that very effort two years ago. They now must reap what they sowed: a less political and more science-driven regulatory process. The court's decision means the EPA can move forward with clean car standards that are, incidentally, already supported by industry and labor, and the issuance of restrictive permits to power plants and other major industrial polluters. There are, of course, winners and losers in this transition. Coal-producing states like West Virginia will be hurt economically as they gradually lose a market for their product. But until power plants and other major users of coal develop a reliable and economical method to capture carbon emissions (or at least offset them), this is unavoidable. Yet that setback for coal is a potential boon for alternative sources of energy. Much of the attention now will be on generating power from natural gas, which is less harmful to the environment (though hardly carbon-free), and on improving biofuels, solar and wind technologies. Conservatives can grouse all they want that the transition will inevitably cause consumer prices to rise. Coal was relatively cheap compared to the alternatives — if the harmful effects of greenhouse gas emissions are not factored into its price. Mitt Romney is already running ads in critical states like Ohio attacking the EPA, always a favorite Republican whipping boy, and promising to strip the agency of its authority to regulate carbon. But Mr. Romney may also find himself politically vulnerable on this issue. He has admitted in the past that the earth's climate is changing, that humans are contributing to the problem and that he favored reducing greenhouse gas emissions. Yet his refusal to endorse the EPA's regulatory role would seem to put him in a political no-man's land of recognizing that global warming is real and distressing but declining to do anything worthwhile about it. Even with the mountain of evidence supporting the reality of climate change and now a growing number of court opinions endorsing it, it's hard to believe a politically gridlocked Congress is capable of taking appropriate action on its own. Thus, the EPA represents the best hope for responsible behavior — and for the U.S. to set an example for countries that have been similarly reluctant to embrace reforms. This week's ruling may yet be appealed to the Supreme Court, but experts say there's little chance of reversal there, particularly given the high court's related 2007 decision and the slam-dunk nature of the appeals court's unanimous findings. Opponents would be better served putting their energy where it should have been in the first place — in developing methods to reduce greenhouse gas emissions. From Western fires and Southern flooding to severe weather, threatened animal and plant species and melting ice caps, the impact of global warming is real and distressing. A recent study from the U.S. Geological Survey suggests the East Coast is a "hot spot," as sea levels are rising more rapidly than previously thought. All of which strongly suggests it's time Washington stopped bickering over global warming and started supporting the EPA's efforts.

#### Can’t solve warming –

#### A. Uranium economy

Howard 4/6/9 (Brian C., staffwriter, “Is Green Opposition to Nuclear Power to Blame for Global Warming?” <http://www.thedailygreen.com/living-green/blogs/recycling-design-technology/nuclear-power-global-warming-460409>)

Well nuclear is not zero carbon, as uranium mining is extremely dirty and fossil-fuel heavy, as well as dangerous. It also leaves a lot of toxic fallout (just ask the Native American communities suffering from high cancer rates in their vicinity). Also the only two uranium smelting plants in the U.S. are coal fired and are extremely dirty, releasing a lot of CFCs (since they are grandfathered). Transportation of fuels, storage and protection of nuke plants uses a lot of energy. Also they are plagued with enormous cost overruns and down times, as well as many staffing problems (mistakes, repeated problems with guards sleeping, etc). And they are too expensive and totally uninsurable (without the Congressional act that strictly limits liability to completely unrealistic levels).

#### B. Takes too long

#### Aurilio and Sargent 2011

Anna and Rob, Anna Aurilio is Director of the DC office for Environment America responsible for policy development, research and advocacy on energy issues and anti-environmental subsidies and MS in Environmental Engineering from MIT. Rob Sargent is the Energy Program Director for Environment America. 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>

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."

#### This is particularly true for SMRS – they take as long as traditional reactors – this is the most qualified evidence

Makhijani, Ph.D in Nuclear Engineering AND Boyd, Masters in Environmental Policy 10 (\*ARJUN, electrical and nuclear engineer who is President of the Institute for Energy and Environmental Research – Ph.D in Engineering specializing in nuclear physics at the University of California-Berkeley, \*MICHELE, Director of the Safe Energy Program at Physicians for Social Responsibility, where she is focused on preventing the construction of new nuclear reactors due to their inherent cost, waste, safety, security and proliferation risks and on promoting safe, clean renewable energy and energy efficiency – has a master's degree in environmental policy from the University of Michigan and two bachelor's degrees in biology and agriculture from Purdue University, “Small Modular Reactors No Solution for the Cost, Safety, and Waste Problems of Nuclear Power” <http://ieer.org/wp/wp-content/uploads/2010/09/small-modular-reactors2010.pdf>)

Efficiency and most renewable technologies are already cheaper than new large reactors. The long time — a decade or more — that it will take to certify SMRs will do little or nothing to help with the global warming problem and will actually complicate current efforts underway. For example, the current schedule for commercializing the above-ground sodium cooled reactor in Japan extends to 2050, making it irrelevant to addressing the climate problem. Relying on assurances that SMRs will be cheap is contrary to the experience about economies of scale and is likely to waste time and money, while creating new safety and proliferation risks, as well as new waste disposal problems

No extinction

Barrett, professor of natural resource economics – Columbia University, ‘7

(Scott, Why Cooperate? The Incentive to Supply Global Public Goods, introduction)

First, climate change does not threaten the survival of the human species.5 If unchecked, it will cause other species to become extinction (though biodiversity is being depleted now due to other reasons). It will alter critical ecosystems (though this is also happening now, and for reasons unrelated to climate change). It will reduce land area as the seas rise, and in the process displace human populations. “Catastrophic” climate change is possible, but not certain. Moreover, and unlike an asteroid collision, large changes (such as sea level rise of, say, ten meters) will likely take centuries to unfold, giving societies time to adjust. “Abrupt” climate change is also possible, and will occur more rapidly, perhaps over a decade or two. However, abrupt climate change (such as a weakening in the North Atlantic circulation), though potentially very serious, is unlikely to be ruinous. Human-induced climate change is an experiment of planetary proportions, and we cannot be sur of its consequences. Even in a worse case scenario, however, global climate change is not the equivalent of the Earth being hit by mega-asteroid. Indeed, if it were as damaging as this, and if we were sure that it would be this harmful, then our incentive to address this threat would be overwhelming. The challenge would still be more difficult than asteroid defense, but we would have done much more about it by now.

## \*\*\*2NC

### 2nc t/warming

#### Chinese nuclear power leadership is the only way to solve warming----

#### Targets, Strong nuclear power leadership in china is key to emission reductions, that turns the aff, Paltsev, the lead author of an influence climate study from MIT, calculates without china we will miss temp targets by a whole degree celcious, makes warming irreversible and runaway

#### Modeling, developing countries most critical to emission reductions ONLY look to china as a model for environmental policy due to profound economic similarities, Chinese soft power from nuclear export leadership is critical to give them leverage to build coalitions, that’s zhang.

#### This is net offense, even though there is warming in the SQ china offers the best method to stop it, only their leadership is sufficient because it forces action from the rest of the world.

And, fast expansion of domestic nuclear power necessary to reduce carbon emissions and avoid environmental harms of coal dependence

Boey-Research Analyst at the Energy Studies Institute, National University of Singapore-2/27/12

<http://www.japanfocus.org/-Augustin-Boey/3698>

Nuclear Power and China’s Energy Future: Limited Options

China’s energy needs, climate change and nuclear power As a growing superpower, China has been making its presence felt in a variety of international arenas. It has long been the world’s most populous country, with over 1.3 billion people. China’s burgeoning economy, with annual GDP growth around ten percent since the 1980s, allowed it to surpass Japan in 2010 to become the world’s second largest economy after the US. As the “world’s factory,” China has become the world’s largest emitter of carbon dioxide since overtaking the US in 2006 in annual volume of emissions, although China’s carbon dioxide emitted per capita remains significantly lower than that in the US. Since China’s economic opening and reform program in the 1970s, the demographic, economic and environmental shift that has occurred has necessarily built upon a commensurate growth in electricity demand. Most of the electricity produced in China has thus far been supplied by coal, which provided 2,940,525 GWh of electricity in 2009 and constituted almost 80 percent of the total electricity generation mix.3 However, the combustion of coal also produces a large quantity of greenhouse gases and other pollutants and is as such a distinctly environmentally-unfriendly fuel, particularly as it is used in conventional coal-burning power plants. With climate change becoming an increasingly important issue on environmental and political fronts, China’s energy policy must therefore simultaneously confront the twin challenges of ensuring energy security and climate change mitigation. Amongst China’s energy security issues is the pressing need to ensure that domestic power demands are met. China’s power generation capacity has increased rapidly, as has its electricity infrastructure, but this growth in supply has only unevenly met the growing demands for electricity.4 This growth is predicted to continue in coming decades – the International Energy Agency has projected that China’s total electricity generation will increase by a compound annual growth rate (CAGR) of 3.9 percent from 2009 to 2035.5 Of this total, coal is projected to increase by a CAGR of 2.5 percent while nuclear power, which has a much smaller base, is projected to increase by a CAGR of 10.6 percent in the same period.6 The need to meet the sustained increase in electricity demand is unlikely to let up as China’s economy continues to grow. This represents a perennial energy policy challenge.7 Recent reports indicate that China’s power supply in 2012 will again be strained by the low capacity additions relative to growth in power consumption.8 China’s unrelenting consumption of electricity is complicated by its quest for energy self-sufficiency. While China does possess substantial fossil fuel reserves, and indeed used to export oil and coal, it has become a net importer of fossil fuels and has extended its geopolitical reach in part to feed its growing power demands.9 The government’s decision to continue its nuclear power programme can thus be seen as a combination of realism about the growing requirements of its electricity grid and belief that the viability and safety of nuclear power technology has not been seriously compromised by the Fukushima nuclear disaster which, unlike Chernobyl or Three Mile Island, was triggered by natural disaster rather than human error.10 Nuclear power has also been legitimized in China’s public policy due to its favourable greenhouse gas profile. Nuclear power produces almost zero carbon directly and its substitution for fossil fuel plants reduces the net greenhouse gas emissions emanating from electricity production.11 Greenhouse gas emissions in China are largely produced by the power sector due to its heavy use of coal.12 China’s need to quickly reduce carbon emissions in power generation is highlighted by the government’s objective to reduce the ratio of GDP to carbon dioxide emissions by 40-45 percent between 2005 and 2020.13 Furthermore, the heavy reliance upon coal fired power generation causes immediate local health and environmental problems. Pollutants released from coal combustion have been identified as causing the rise of respiratory illnesses and has precipitated increased occurrences of acid rain and a consequent degradation in soil quality.14 These factors enhance nuclear power’s appeal as a means to reduce greenhouse gas emissions and improve environmental quality.

#### Chinese emissions are sufficient to cause extinction---makes this an external impact

John Copeland Nagle 11, the John N. Matthews Professor, Notre Dame Law School, Spring 2011, “How Much Should China Pollute?,” Vermont Journal of Environmental Law, 12 Vt. J. Envtl. L. 591

Third, the rest of the world suffers because of the inability of China and the United States to agree on a method for reducing their greenhouse gas emissions. Even if the rest of the world were to reach such an agreement, the failure to include China and the United States would doom the project from the start. Together, China and the United States account for forty-one percent of the world's greenhouse gas emissions. [FN19] Left unchecked, China's emissions alone could result in many of the harms associated with climate change. [FN20] That is why many observers believe that “[t]he decisions taken in Beijing, more than anywhere else, [will] determine whether humanity thrive[s] or perishe[s].”

Turn-Compulsory licensing

A. China pushes compulsory licensing for clean technology-the US is against

Financial Times 11/23/09

China, India push for 'patent free' green tech

<http://www.euractiv.com/innovation-enterprise/china-india-push-patent-free-gre-news-223054>

As world leaders prepare for climate talks in Copenhagen next month, developing nations have tabled a controversial proposal which would effectively end patent protection for clean technologies. China and India have floated the idea of making new green technology subject to 'compulsory licensing', which critics say amounts to waiving intellectual property rights. The idea of adapting or liberalising patent rules for crucial new inventions which can help reduce carbon emissions is not new, but the EU and US are unhappy with compulsory licensing, fearing it would dramatically reduce the incentive for businesses to innovate and stifle green job creation. Compulsory licensing has to date only been used in emergency situations where patent-protected pharmaceuticals were seen as prohibitively expensive. The Thai government used the mechanism to allow local medicines factories produce HIV drugs at a fraction of the cost. Now, the group of 77 developing nations, led de facto by China, wants to apply the same logic to the climate crisis.

B. Turns the case-key to global dissemination of clean technology

Caprotti-assistant professor in human geography at University College-7/30/09

<http://seedmagazine.com/content/article/intellectual_property_who_owns_green_tech/>

CATALYST / BY VERONIQUE GREENWOOD /FIVE EXPERTS DISCUSS HOW INTELLECTUAL PROPERTY CAN BE ADAPTED TO SPREAD GREEN TECH, WHAT WE CAN LEARN FROM PASTEUR, AND HOW TO INSPIRE

The rationale behind patenting technology is clear: Patents and IP rights protect a corporation responsible for innovation, allowing it to invest in R&D without fearing that another company will steal its innovation and bring it to market without bearing any of the development costs. Proponents of “green and clean IP” rightly point to the fact that more than 70 percent of global R&D in green tech is spent by private companies that want to protect their investments. That is why, for example, Toyota has patented more than 1,000 systems and components on its third-generation Prius hybrid car. The situation is clear when all we’re talking about is a car. Or a hybrid engine. Or the gearing components of a wind turbine. However, it is far less clear when the issue is about climate change and sustainability, not about specific components, technologies, and firms. The pressing issue of climate change forces us to start thinking past our own borders and past the narrow concerns of individual companies. In short, we have to start thinking past the private good in order to achieve the public good. It may be worthwhile to think of some of the greatest technological breakthroughs which have benefited humanity—and which happened without the benefits of patenting and IP. When Louis Pasteur developed the first vaccine against rabies—a disease which still kills upwards of 50,000 people a year—he did not patent his discovery, nor work for profit, but disseminated his knowledge for the public good. Indeed, in the case of the environment, rarely has the market unequivocally “worked” in eliminating the negative impacts—or “externalities”—of fossil fuel use, pollution, and environmental inequalities. It would be naive to suggest that all green technologies should be free. However, a recent high-profile report by University College London suggests that climate change is the biggest threat to global health in the 21st century. Developing a broader green IP framework is therefore crucial to the success of international climate treaties and emissions reductions standards. It is also crucial for developing countries, which are set to bear the brunt of the projected increased incidence and spread of diseases, extreme weather events, and warming. One promising avenue is the establishment of an international licensing mechanism focused on green tech and clean tech. This would enable companies and governments in the developing world to use established technologies for a fee, while protecting innovator firms. This already happens in the case of various technologies, from engine components to airliners. However, if the common good and the issue of climate change are to be kept in mind, the licensing of green tech needs to include a fee mechanism. This will enable economies at different stages of development—such as the US, China, and Bangladesh—to afford to use the same licensed technologies to promote sustainability and cleaner production. Ideally, this fee mechanism should account for the fact that several green technologies—from wind turbines to solar film—are manufactured in developing countries, taking advantage of low labor costs and incentives derived from those governments that the Green IP lobby is active in criticizing. At the same time, the new “green licensing” scheme should focus on established, not cutting-edge or proof-of-concept technologies. This is because it is crucial for countries to start reducing emissions now—not in 20 years. Parallel to this, international agreements should increasingly encourage the joint development of green tech by firms from developed and developing economies. Examples of this already exist: Vestas, the world’s largest wind turbine manufacturer, sources 90 percent of the components for its new turbine from Chinese companies (see pdf). In turn, the turbine is manufactured in China’s Inner Mongolia Autonomous Region so that it can easily reach the Chinese market. A licensing mechanism which allows for the spread of established green tech today will help developing countries to act on national environmental strategies, while allowing for the protection of innovators and investors in advanced economies.

C. Key internal link for warming

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<http://gspp.berkeley.edu/IPR/whoowns.pdf>

Who Owns the Clean Tech Revolution? Intellectual Property Rights and

International Cooperation in the U.N. Climate Negotiations

The outcome of the IPR dispute will determine the future of the global clean tech revolution. Without the rapid diffusion and adoption of emissions-reducing, energy saving technologies across the planet, especially in poorer nations, there will be little hope of halting or significantly slowing the advance of climate change.

### Uq

### U-Chinese Innovation-SMR

China taking lead on SMR technology

Buijs-Clingendael International Energy Programme-3/12

China and the Future of New Energy Technologies

<http://www.clingendael.nl/publications/2012/201203_ciep_paper_buijs_china_future_new_energy_technologies.pdf>

Finally, China is researching modular high‐temperature gas‐cooled pebbled‐bed reactors, which operate using nuclear fissile material shaped in pellets, coated and encapsulated inside a ceramic material. The key feature of this design is that it has very strong passive safety characteristics, since the pebbles and ceramic material are designed in such a way that a total lack of cooling would not cause the overall structure to disintegrate. Moreover, it can be used to build small reactors at a modular design basis, which can be easily expanded. The technology was originally developed in South Africa but not further pursued there. A first small 10 MW experimental reactor was developed by Tsinghua University in the context of the 863 Program for national research and reached criticality in 2003. Construction of a larger demonstration project with two reactor modules driving a 210 MW steam turbine was begun at the Rongcheng Shidaowan site in Shandong province in 2009 and is scheduled for completion in 2013. Regarding this Chinese effort, the report China’s Program for Science and Technology Modernization: Implications for American Competitiveness prepared for the US‐China Economic and Security Review Commission in 2011 remarks: ‘Scientists predict that if the PRC program to make a commercially‐viable pebble bed reactor is successful, it will represent a revolution in reactor technology—perhaps the largest advance in a quarter of a century.’ 17

### U-Chinese Nuclear Power Expansion

#### Chinese expansion of nuclear power on track

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<http://www.japanfocus.org/-Augustin-Boey/3698>

Nuclear Power and China’s Energy Future: Limited Options

Nuclear power in China’s electricity generation mix

China’s first nuclear power reactor was connected to the grid in 1991. Since 1993, nuclear generation has grown rapidly, especially since 2001. By 2004, ten commercial power reactors were on the grid and in 2009, 70,134 gigawatt hours of electricity were produced from nuclear power.15 China’s nuclear expansion is continuing apace. The 25 reactors currently being constructed represent around half of all current worldwide new build projects. According to the International Energy Agency (IEA), 89 percent of China’s electricity in 2009 was produced from coal, with hydropower producing six percent or the second highest amount.16 Nuclear power produced a comparatively paltry 2 percent of the electricity generation portfolio in the same year. As highlighted above, however, China’s nuclear capacity is projected to increase substantially due to exploding energy demands. The IEA predicts that China’s energy demand will more than double from 920 Mtoe in 2009 to 1,867 in 2030.17 This represents a Compound Annual Growth Rate (CAGR) of 3.43 percent, which outstrips the predicted global increase in energy demand in the same period by a CAGR of 1.85 percent. Over the period 2009 to 2035, the IEA predicts that the share of coal power in total electricity production will be reduced by 25 percent, with a projected 64 percent of electricity in China coming from coal in 2035.18 This reduced role of coal in China accords with the predicted worldwide trend of decreasing reliance upon coal for power generation. The share of nuclear power, on the other hand, is expected to increase in China from its current 2 percent to 12 percent in 2035. This represents a CAGR of 12.68 percent. The IEA’s projections roughly correspond with the United States Energy Information Administration’s reference case projections in the 2011 edition of its International Energy Outlook, which states that China’s nuclear energy consumption will increase by 10.3 percent from 2008 to 2035, while the worldwide and the United States growth rate figures are 2.4 percent and 0.3 percent, respectively.19 China’s carbon emissions from power generation are expected to increase at a CAGR of 2.15 percent from 3,324 Mt in 2009 to 5,200 Mt in 2030, while worldwide emissions are expected to increase at a CAGR of 1.02 percent from 11,760 Mt to 14,556 Mt over the same period.20 It is important to note that this growth in nuclear power will not occur in isolation from growth in renewable power. Renewables are projected to increase from 56 Mtoe in 2009 to 264 Mtoe in 2030, growing with a CAGR of 7.66 percent in that period. This is a rapid projected growth rate by global standards, but it accompanies, not replaces, substantial growth in nuclear power. Chinese government plans call for having 20 percent of electricity produced by renewable power sources by 2020.21

#### China resuming nuclear power process after Fukushima

China Energy Weekly 8/31/12

Fuqing Nuclear Power Plant to come on-line next year lexis

Fuqing Nuclear Power Plant in south China's Fujian Province will begin generating power in November 2013, the facility's builder and operator CNNC Fujian Nuclear Power Co. Ltd., a unit of China National Nuclear Corp. (CNNC), confirmed with Interfax on Thursday. The first phase of the RMB 100 billion ($15.80 billion) plant will utilize a single one gigawatt (GW) CPR-1000 pressurized water reactor that will come on-line as scheduled in November 2013. An additional five reactors will be added by 2018. The CPR-1000 is manufactured by China Guangdong Nuclear Power Group and is based on an earlier design by Euronext Paris-listed Areva SA. CNNC and power producer China Huadian Corp., both state-owned, have stakes of 51 percent and 39 percent in the plant, respectively. Fujian Investment and Development Co. Ltd., the infrastructure investment vehicle of the Fujian provincial government, holds a 10 percent stake. Construction of nuclear projects has resumed slowly this year following a suspension in activity in the aftermath of the Fukushima nuclear disaster in Japan in March 2011. CNNC announced on Aug. 3 that the company's nuclear plant in Hainan Province would go on-line in 2014 as scheduled. China currently has 15 nuclear reactors in operation with total installed capacity of 12.57 GW. The central government may also resume the approval process for new nuclear power plants before the end of this year, Yu Zusheng, a senior adviser to State Nuclear Power Technology Corp., said on Aug. 29 at an industry forum in Beijing, the state-run Xinhua news agency reported. "China cannot afford to give up nuclear power considering as it is one of the cheapest and most stable energy resources out there, if safety is guaranteed," nuclear power researcher Xiong Weiping told Interfax on Thursday. "Developing nuclear power is a must for China's energy strategy as clean energy cannot satisfy domestic power demand." China has set a target of 80 GW of installed nuclear power capacity by 2020. Nuclear power output in the first seven months of the year rose 15.3 year-on-year to 55 terawatt hours, representing two percent of total output, according to the State Electricity Regulatory Commission.

### DOD Procurement Link

#### DOD procurement trades-off with foreign leadership on SMRs-US will import, solves the case

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

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.

### Yes Military Spillover

#### 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.

#### Revitalizes industry fast

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.

#### Empirically proven

Hayward et al 10 Steven F, Resident Scholar AEI, Mark Muro, Senior Fellow at Metropolitan Policy Program at Brookings, Ted Nordhaus and Michael Shellenberger, Cofounders Breakthrough Institute, October, "HOW A LIMITED AND DIRECT APPROACH TO ENERGY INNOVATION CAN DELIVER CLEAN, CHEAP ENERGY, ECONOMIC PRODUCTIVITY AND NATIONAL PROSPERITY", www.aei.org/files/2010/10/13/Post-Partisan-Power-Hayward-101310.pdf

The public sector, therefore, has a critical role to play in accelerating the demonstration of promising new clean energy technologies.33 Throughout America’s history, the federal government, particularly the DOD, has played a pivotal role in demonstrating high-risk technologies through direct procurement. In 1954, for example, the federal government created the modern nuclear power industry when the Atomic Energy Commission announced the Power Demonstration Reactor Program to demonstrate a first generation commercial nuclear reactor in Pennsylvania.34 Similar models must be employed today.¶ More must also be done to accelerate the early commercialization of promising energy technologies with high potential to reduce American dependence on oil, lower carbon emissions, and strengthen America’s economic competitiveness. As new technologies are deployed at scale, they routinely come down in price as they gain economies of scale, supply chain efficiencies, and market experience that further inform ongoing technology research efforts. Here, federal and military procurement efforts can also play a key role, as they have throughout the nation’s history. The DOD and NASA were central to the birth of the modern semiconductor industry, acting as an early demanding customer for microchips. Throughout the early 1960s, the federal government bought virtually every microchip that firms could produce. The price of a chip fell from $1,000 per unit to between $20 and $30 in a matter of years, spurring the birth of Silicon Valley and laying the foundation for the Information Technology Revolution decades later.35¶ Unfortunately, today’s hodgepodge of energy subsidies and deployment policies remain disconnected from research activities and provide weak incentives for innovation. Current federal tax incentives for wind and solar power, for example, are primarily focused on supporting the deployment of existing energy technologies at current prices, rather than on driving technology improvements to reduce their unsubsidized cost. Renewable portfolio standards, which require utilities to purchase a certain percentage of electricity generation from renewable sources, encourage deployment of the lowest-cost renewable energy technology available — generally wind power — while doing little to drive down the price of other, higher-cost clean energy technologies, such as solar panels, that may have the potential to become much cheaper in the long-term.¶ New federal efforts to commercialize innovative clean energy technologies should not take the form of open-ended subsidies. In contrast to current clean energy deployment policies, new “competitive deployment” efforts should be disciplined around a clear goal of reducing the costs and improving the performance of advanced energy technologies. In this way, this effort should be considered part of the technology innovation process with explicit technology improvement objectives, and it should be distinguished from the morass of existing energy subsidies.¶ Lastly, the federal government must help facilitate the transfer of new technologies from the laboratory to the marketplace, as well as strengthen linkages between government and the private sector in order to accelerate technology commercialization. Too often, it is assumed that basic research is effortlessly translated into commercial products. Unfortunately, commercialization does not happen so easily and the process is plagued by multiple barriers, including information breakdowns, institutional inertia, and coordination problems.36 The government can help remove these barriers by more closely integrating research efforts and military procurement needs, and facilitating the development of clean energy clusters—dense networks of firms, suppliers, universities, and local government officials that enhance collaboration in clean energy R&D and production activities and increase the commercialization of new technologies.37¶ With pervasive policy deficiencies and substantive technological barriers to widespread clean energy adoption, there is little wonder that the United States remains dependent on the same fossil energy sources that have powered our nation since the 19th century.

#### Procurement catalyzes innovation and commercialization of energy sources---other subsidies fail

Hayward et al 10 Steven F, Resident Scholar AEI, Mark Muro, Senior Fellow at Metropolitan Policy Program at Brookings, Ted Nordhaus and Michael Shellenberger, Cofounders Breakthrough Institute, October, "HOW A LIMITED AND DIRECT APPROACH TO ENERGY INNOVATION CAN DELIVER CLEAN, CHEAP ENERGY, ECONOMIC PRODUCTIVITY AND NATIONAL PROSPERITY", www.aei.org/files/2010/10/13/Post-Partisan-Power-Hayward-101310.pdf

The government has a long history of successfully driving innovation and price declines in emerging technologies by acting directly as a demanding customer to spur the early commercialization and large scale deployment of cutting-edge technologies. From radios and microchips to lasers and camera lenses, the federal government, in particular the DOD, has helped catalyze the improvement of countless innovative technologies and supported the emergence of vibrant American industries in the process.67 Yet today’s mess of open-ended energy subsidies reward production of more of the same product, not innovation. The federal government showers subsidies across many energy options, from oil and coal to ethanol and wind power. None of these efforts, however, are designed or optimized to drive and reward innovation and ensure the prices of these technologies fall over time, making the subsidies effectively permanent. This must change.

### 2NC Chinese Economy Impact Module

Reverse drain key to Chinese growth and technological advancement

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The American Brain Drain and Asia

<http://japanfocus.org/-Alex-Salkever/3112>

The United States has long served as a magnet for talented scientists, engineers and mathematicians from China and India. This attraction has proven controversial, both in Asia and in the United States. Economic nationalists in China and India have long complained that the "brain drain" damaged their countries’ ability to compete and slowed economic development by skimming off the best talent. For their part, critics in the United States claimed that foreign workers arriving on H-1B visas displaced U.S. knowledge workers and pushed down wages for this class of employment. In the past five years, however, the pull of the United States has clearly lessened as the entry barriers for immigrants have become more formidable and as rapid economic development in India and China now provides enhanced professional and entrepreneurial opportunities plus a better quality of life than was previously possible in those countries. More recently, long waits for permanent or extended work visas have discouraged hundreds of thousands of immigrants. And the ongoing financial crisis in the United States has caused a xenophobic backlash, including legal steps taken by the U.S. Congress to limit the award of temporary H-1B visas by U.S. financial corporations receiving bailout funds. These changes have made life in China and India far more attractive choices for residency. This has resulted in a new demographic trend -- a "reverse brain drain" as thousands of Chinese and Indians who were studying in, or working and living in the United States on a permanent basis, have returned to their Asian homelands or other parts of Asia. To date, the evidence is largely anecdotal. No official statistics on reverse immigration yet exist. However, the topic has become a constant theme in immigrant communities in the United States and abroad. What's more, the trend has potentially profound implications for the global economic balance of power and it could augment technological upgrading in Asia while slowing technology development in the United States. Some new research has begun to illuminate the decision-making processes behind this reverse brain-drain with evidence on the feelings and beliefs of the Chinese and Indian immigrants and students who make up this trend cohort. A research team including Vivek Wadhwa and Gary Gereffi of Duke University, AnnaLee Saxenian of University of California at Berkeley, Richard Freeman of Harvard University, Guillermina Jasso of New York University and Ben Rissing of the Massachusetts Institute of Technology spent three years conducting multiple surveys of thousands of technology and engineering startup companies. The team interviewed hundreds of company founders, surveyed more than 1,000 foreign students and more than 1,000 returnees, and made multiple trips to India and China to understand the on-the-ground situations in those countries. This research built on AnnaLee Saxenian’s 1999 report Silicon Valley’s New Immigrant Entrepreneurs. [1] This was the first broad assessment of the critical role that immigrants played in Silicon Valley’s regional economy. Saxenian found that Chinese and Indian engineers were represented on the founding teams of 24% of Silicon Valley technology businesses launched between 1980 and 1998. [2] Subsequent research conducted by our team undertook an expanded nationwide survey of 2,054 randomly selected engineering and technology firms founded between 1995 and 2005. In one-quarter of those companies, the chief executive officer or chief technology officer was foreign born. Assuming this data is broadly representative nationwide, in 2005 immigrant-founded tech companies generated $52 billion in revenue nationwide and employed 450,000 workers. [3] The research team also examined the World Intellectual Property Organization (WIPO) Patent Cooperation Treaty (PCT) records. They found that foreign nationals residing in the United States were named as inventors or co-inventors in one quarter of WIPO patent applications filed from the United States in 2006, up from the 7.6% of applications filed in 1998. These applications represented a significant share of intellectual activity at many prominent U.S. companies. Immigrant patent filings accounted for 72% of the total at Qualcomm, 65% at Merck, 64% at General Electric, and 60% at Cisco Systems. Clearly, immigrants were and are contributing significantly to U.S. intellectual property, a key ingredient for the country’s economic success. [4]

Key to innovation and Chinese growth

Wadhwa-Executive in Residence at the Pratt School of Engineering at Duke University and a Senior Research Associate at the Labor and Worklife Program at Harvard Law School-9

The American Brain Drain and Asia

<http://japanfocus.org/-Alex-Salkever/3112>

These positive impacts created by talented immigrant workers will be located wherever those workers live. So losing these talented workers will likely result in an overall reduction of patents and innovation in the United States and a corresponding rise of these types of activities in India and China. In a world where knowledge is the foundation of economic power, brains are the coin of the realm. Dramatic changes in visa policies or political unrest in China or India could quickly reverse the tide. The majority of immigrant returnees to China and India stated they might be willing to return to the United States if offered equal opportunities and permanent residency. [9] That said, relocating from one country to another is no trivial act. Return migration from the United States to China and India is not necessarily a net loss to the U.S. economy. It is quite possible that many who return to Asia maintain strong ties to the United States and even establish cross-border entrepreneurial networks that provide economic benefits to both societies. This is a topic that merits further investigation. Nonetheless, the ongoing return migration will, at a minimum, seed the economies of India and China with considerable talent in the near term and possibly help tilt-the balance of economic power over the long-term by enhancing the innovation quotient of India and China. This is likely to lessen the relative competitiveness of the United States, a result of the constant competition for the best brains on Earth.

#### Chinese economic collapse causes Asian and Middle East conflict- China will turn outwardly aggressive.

Newmeyer 09 DR. JACQUELINE NEWMYER - LONG TERM STRATEGY GROUP- THE CENTER FOR NATIONAL POLICY “ECONOMIC CRISIS: IMPACT ON CHINESE MILITARY MODERNIZATION” APRIL 8, 2009, http://cnponline.org/index.php?ht=a/GetDocumentAction/i/12503

 So I think either way, either because of the insecurity that is stoked by what’s happening inside China and perceptions about economic slowdown, and/or because of demonization issues and popular discourse, I think that there’s a real chance that the Chinese leadership could feel compelled, for reasons of state security, to take actions that appear more belligerent abroad. And that could have effects leading up to possibly even military conflict or the use of military force against outside actors in addition to whatever force is used inside China to maintain stability. So I think that would be a real, kind of operational test for the PLA, a modernized force now. So, in conclusion, what struck me in thinking about and preparing for this presentation was there was less divergence between the sort of steady state and the more dramatic impact of the economic downturn scenarios than I expected. Either way, I think there is a chance, or a likelihood, of increased friction between China and other external countries, particular countries, that would affected in the case of increased arm transfers, actors in the Middle East would be affected, possibly also the U.S., and in the case of more serious concern about internal unrest in China, I think China’s relations with the West, and with India, or with Japan would be implicated there. So I think contrary to our hopes which would be that the downturn would have the effect of causing China to turn inwards and reduce the chances for any kind of external problem, I think, in fact, there’s reason to think, and to worry, that the downturn would lead to a greater chance of conflict abroad for China.

### \*\*\*Science adv

### Nuclear primacy

Spending for stockpile reliability insulated from general funding cuts---no internal link

Priest-Washington Post-9/16/12

http://www.denverpost.com/recommended/ci\_21553838

U.S. nuclear arsenal to undergo gargantuan overhaul

POSTED: 09/16/2012 12:01:00 AM MDTBy Dana Priest

The Washington Post 9/16/12

The U.S. nuclear arsenal, the most powerful but indiscriminate class of weapons ever created, is set to undergo the costliest overhaul in its history, even as the military faces spending cuts to its conventional arms programs at a time of fiscal crisis. For two decades, U.S. administrations have confronted the decrepit, neglected state of the aging nuclear weapons complex. Yet officials have repeatedly put off sinking huge sums into projects that receive little public recognition, driving up the costs even further. Now, as the nation struggles to emerge from the worst recession of the post-war era and Congress faces an end-of-year deadline to avoid $1.2 trillion in automatic cuts to the federal budget over 10 years, the Obama administration is overseeing the gargantuan task of modernizing the nuclear arsenal to keep it safe and reliable. There is no official price tag for the effort to upgrade and maintain the 5,113 warheads in the inventory, to replace old delivery systems and to renovate the aging facilities where nuclear work is performed. A study this summer by the nonpartisan Stimson Center, a Washington think tank, estimated costs would be at least $352 billion over the coming decade to operate and modernize the current arsenal. Others say the figure could be far higher, particularly if the work is delayed even longer. The timing does not fit with the nation's evolving defense posture, either. Over the past decade, the U.S. military has moved away from nuclear deterrence and major military interventions in favor of more precise tactics rooted in Special Operations forces and quick tactical strikes deemed more effective against today's enemies. Federal officials and many outside analysts are nonetheless convinced that, after years of delay, the government must invest huge sums if it is to maintain the air, sea and land nuclear triad on which the country has relied since the start of the Cold War. Failing to act before the end of next year, they say, is likely to mean that there won't be enough time to design and build the new systems that would be required if the old arsenal is no longer safe or reliable. "I've been doing this for 20 years, and I haven't seen a moment like this," said Thomas P. D'Agostino, who leads the National Nuclear Security Administration, the federal agency charged with managing the safety of the nuclear arsenal, in an interview. The debate over the future of the nation's nuclear arsenal is playing out in Congress and within the administration. Public reports, interviews with government officials and outside experts and visits to nuclear facilities rarely seen by outsiders provided a portrait of the scope and cost of maintaining and refurbishing the nuclear stockpile underlying the debate. At the heart of the overhaul are the weapons themselves. Renovating nuclear bombs and missiles to keep them safe and ready for use will cost tens of billions of dollars. Upgrading just one of the seven types of weapons in the stockpile, the B61 bomb, is likely to cost $10 billion over five years, according to the Pentagon. The next two types of bombs in line for modification are estimated to cost a total of at least $5 billion. Replacing the aircraft, submarines and ground-launch systems that carry nuclear payloads will be the most expensive budget item. The nonpartisan Congressional Budget Office estimated it would cost up to $110 billion to build 12 replacements for the aging Ohio-class submarines first launched in the 1980s. The Minuteman III ballistic missiles are undergoing a $7 billion upgrade even as a new generation of intercontinental ballistic missiles is under consideration. Meanwhile, a nuclear-capable fleet of F-35 strike aircraft is being built to replace existing aircraft at a cost of $162 million an airplane. Finally, there are the buildings and laboratories where the refurbishment of weapons and development of new technologies take place. Modernizing those facilities is expected to cost at least $88 billion over 10 years, according to the NNSA, which is part of the Department of Energy. The need to spend heavily to modernize the nation's shrinking nuclear stockpile has been apparent for at least two decades. President George H.W. Bush reduced the stockpile by nearly 40 percent and imposed a ban on nuclear testing. President Bill Clinton extended the ban while reaffirming the importance of maintaining the arsenal's safety and performance. President George W. Bush came into office in 2001 planning to shrink and modernize the vast and deteriorating nuclear complex. Although he cut the stockpile by almost 50 percent and made some progress on renovating the complex, the effort was largely derailed by the costs and complications of two wars. All the while, the backlog of urgent repairs accumulated, and the hidden costs increased steadily. To catch up, the Obama administration's budget for refurbishing the nuclear stockpile went from $6.4 billion in 2010 to a $7.5 billion request for next year — a 17 percent increase at a time of budget constraints. To help pay the bills, this year the Defense Department agreed for the first time to contribute $8 billion over five years. "We came in thinking it had been taken care of and were shocked to hear how poorly it had been treated," said Jon Wolfsthal, who worked on nuclear weapons issues for the Obama White House until March. While the administration was surprised by the state of the stockpile, the decision to spend heavily on modernization was also driven by a deal cut with Senate Republicans in late 2010. As part of negotiations to win ratification of the New START accord and reduce the nuclear weapons maintained by the United States and Russia, the administration agreed to increase money for modernizing the nuclear-weapons complex. Some Republicans say the administration isn't spending enough.

Modernization and reliability efforts protect arsenal in the SQ-their impact is decades away at best

Collina, Research Director, Arms Control Association-8/12

U.S. Nuclear Modernization Programs

<http://www.armscontrol.org/factsheets/USNuclearModernization>

The U.S. military is in the process of modernizing all of its existing strategic delivery systems and refurbishing the warheads they carry to last for the next 20-30 years or more. These systems are in many cases being completely rebuilt with essentially all new parts. This effort includes: Modernized Strategic Delivery Systems: U.S. nuclear delivery systems are undergoing continual modernization, including complete rebuilds of the Minuteman III ICBM and Trident II SLBM. The service lives of Trident Ohio-class ballistic missile submarines are being extended. Additionally, a new submarine, the SSBNX, which will replace the existing Ohio-class ballistic missile submarines, is undergoing development and is expected to cost about $100 billion, according to the Congressional Budget Office. The B-2 strategic bomber, a relatively new system, is being upgraded, as is the B-52H bomber. The Air Force is also planning a new Long Range Penetrating Bomber (LRPB) and a new cruise missile to replace the Air-Launched Cruise Missile (ALCM). Refurbished Nuclear Warheads: The U.S. stockpile of nuclear warheads and bombs is continually refurbished through NNSA’s Life Extension Program (LEP). Existing warheads are certified annually to be safe and reliable. The JASON panel of independent scientists recently found “no evidence” that extending the lives of existing U.S. nuclear warheads would lead to reduced confidence that the weapons will work. The panel concluded in its September 2009 report that “Lifetimes of today's nuclear warheads could be extended for decades, with no anticipated loss in confidence.”[iii] Defense Secretary Gates wrote April 6, 2010 that the NNSA budget increases and the LEP "represent a credible modernization plan necessary to sustain the nuclear infrastructure and support our nation's deterrent." The United States does not need to resume nuclear test explosions, nor does it need to build new “replacement” warhead designs to maintain the reliability and effectiveness of the U.S. nuclear stockpile.Modernized Production Complex: The nuclear weapons production complex is being modernized as well, with new facilities planned and funded. The FY 2013 NNSA budget request includes a large increase for the Uranium Processing Facility (UPF) at Oak Ridge, Tennessee, from $160 million in FY 2012 to a requested $340 million in FY 2013. The total construction cost for UPF is estimated at $6.5 – 7.5 billion, according to an independent study conducted by the Corps of Engineers.[iv] The increase in funding is the result of a decision to sequence the construction of UPF and the Chemistry and Metallurgy Research Replacement (CMRR) plutonium facility at Los Alamos National Laboratory, New Mexico. Completing CMRR is estimated to cost over $6 billion.

Status quo solves-New training and scholarships for Nuclear forensics

NTI 4/24/12

U.S.: President Signs Nuclear Forensics and Attribution Act

http://www.nti.org/analysis/articles/us-president-signs-nuclear-forensics-and-attribution-act/

On 16 February 2010, President Obama signed the Nuclear Forensics and Attribution Act into law, which established the National Technical Nuclear Forensics Center within the Department of Homeland Security's Domestic Nuclear Detection Office (DNDO). The Center will be responsible for managing, planning, analyzing, exercising, improving, and integrating US federal nuclear forensics activities. It will become the lead agency for developing and implementing a national five-year plan for strengthening US nuclear forensics capabilities, as required by the National Defense Authorization Act of 2010. The bill also tasks the DHS with supporting a National Nuclear Forensics Expertise Development Program, which would fund undergraduate and graduate scholarships and fellowships for studies in nuclear forensics.

### **Primacy not key**

More evidence, primacy won’t dissuade anyone

Bin 6 (Li Bin, a Chinese physicist, works on arms control and international security. He is the Director of the Arms Control Program and Professor of the Institute of International Studies, Tsinghua University . His current research includes missile defense, the implication of arms control for China, and technical measures for transparency in arms control. “Paper Tiger with Whitened Teeth” <http://www.wsichina.org/cs4_5.pdf>)

The Lieber and Press thesis speculates that the United States may attain coercive power over its adversaries in a crisis if a position of nuclear primacy is achieved. The paper, however, does not explain how the United States would transfer its superior nuclear position into signals of threat in order to coerce others. Let us be very clear that it is thoroughly implausible that the United States would use its nuclear weapons to force other countries to yield to it in economic, social or cultural disputes. If it chose to do so, it would fail for two basic reasons. First, power and influence generated in one realm (nuclear primacy) is not necessarily transferable to another realm (economic or other). Second, the threat of using nuclear weapons for such ends would be abhorrent to Americans and the world. Rather, the coercive power of nuclear weapons, if real, should be effective only in serious security disputes - and are therefore the only scope for discussion. Moreover, if Lieber and Press expect that nuclear primacy enables the United States to coerce other countries in security disputes, they need to explain how the United States would send coercive signals and how its rivals would interpret the signals. In a scenario where the goal of the United States is to force a country to yield in a security dispute using the fear of American nuclear superiority, an important question arises: how would a country know whether the nuclear threats from the United States are real and consequently whether to withdraw from their previous position? The United States would need to make known at a certain stage in the dispute: (1) its security objectives in relation to its adversary; and (2) the threat of possibly using nuclear weapons against its adversary if it does not yield its position. The response by the adversary is important here for it may or may not take seriously the nuclear threats by the United States. If the adversary does not take such threats seriously, then they would not feel the necessity to yield and therefore coercion would not work. To clearly reveal its security objectives and convince its adversary that the nuclear threat is credible, the United States would have to send out very strong signals of threat, for example, upgrading its nuclear readiness. If the adversary does take the U.S. nuclear threat seriously, it can raise its nuclear alert accordingly and thereby increase the survivability of its nuclear weapons.

#### Threats are effective- the US has enough intelligence for deterrence to work.

Corr 04

(Anders, Retaliation Against Nuclear Terror: A Negligence Doctrine, 8/11, http://www.foreignpolicysociety.org/workingpapers/WP7--Corr.pdf)

Those states with world-class fissile material storage will have no costs from retaining nuclear capabilities in highly secure storage (Japan, the United States, and Europe). Those states with low levels of security (Pakistan, Russia, India, the former Soviet Republics, and Ghana) will calculate that a retaliatory attack or sanctions due to the attributable loss and use of their nuclear materials or from the unattributable loss and use of fissile materials from another state is a relatively high probability, increasing their willingness to secure or blend down their fissile materials through the Cooperative Threat Reduction program. Existing intelligence and forensic capabilities make a presidential pledge of retaliation against negligent states with substandard storage facilities immediately possible, and given the high costs of nuclear terrorism, necessary. In the proliferating world of the 21st century, terrorist nuclear use is a distinct and increasing probability, and the negligence leading to such use should be decisively and publicly deterred.

### Disease

D'Agostino

. And I am confident of our future when I look out at audiences like this and see people like you. The work you do, your interests and your choices will form our future. Don’t be bashful about striving for what you want. Your investments now in developing your skills make you best able to contribute towards solving our most complex national problems. From Oppenheimer during the Manhattan Project, to the men and women serving in our national laboratories today, the people who come before you have included some of the greatest names in science and discovery. You are the inheritors of a proud tradition of achievement and advancement. I am confident that legacy is in good hands. Secretary Chu recently stated that the Department of Energy “...must discover and deliver the solutions to advance our national priorities.” The NNSA and our Nuclear Security Enterprise are poised to provide those solutions along with the rest of the Department.

### \*\*\*warming

### Impact D

#### **Warming won’t destroy the world---their models are empirically false**

Fuller 10 (Thomas, SF Environmental Policy Examiner, Mar 3, <http://www.climatechangefraud.com/climate-reports/6518-global-warming-is-real-but-effects-have-been-exaggerated-and-we-dont-know-the-future>)

Temperatures have risen 0.7 degrees Celsius over the past century, which is about twice the rate of the previous century. Even if Anthony Watts and Steve McIntyre are absolutely correct about urban heat island effects and paleoclimatic temperature reconstructions, the earth has warmed--and both Watts and McIntyre have said so on their websites repeatedly. This is not really part of the controversy at all. Nor is the reality of the greenhouse effect. Nor is the capability of CO2 contributing to the greenhouse effect. Nor is the reality of human contributions of large amounts of CO2. Almost all skeptics agree with the scientific consensus about this. (It is very convenient for the climate establishment to say they 'deny' this, but the skeptics mostly don't.) What many (not just skeptics) disagree on is the observed effects to date and the future effects as estimated. The Effects Have Been Exaggerated The current warming began around 1880 (give or take a decade) upon the conclusion of the Little Ice Age. The warming has not been even or steady--it accelerates and decelerates for reasons we don't really understand. Those who cry for political action to combat global warming have described some effects of it that they claim have already occurred. In almost every case, their claims have proven to be exaggerated. The 'poster children' for global warming have been polar bears, Himalayan glaciers, African agriculture, increased damage and destruction due to hurricanes and floods, Amazonian rainforests and Arctic ice. Polar bears face an uncertain future. Climate change is just one of many factors that are changing for them. Other factors include human encroachment on their habitat, the response of other wildlife to changes, and most importantly, hunting. Some of the sub-populations of polar bears are decreasing. Some are increasing and some are staying the same. The single most important contribution we could make to helping the population of polar bears increase is to stop shooting them. If we were serious about preserving large numbers of polar bears, we would limit the expansion of human activities throughout their habitat, which would make polar bears less of a threat to people and remove one of the reasons for our killing them. Polar bears have lived through periods of higher temperatures than now, including periods of zero Arctic ice cover. They can swim 200 miles without resting, and Arctic ice loss in and of itself is not a threat to polar bears. Arctic ice comes and goes. We're not sure exactly why, and we're not sure exactly of the cycles that govern its increase and decrease. The most recent decrease was dramatic, but only because it was the first decrease we were able to photograph from satellites. We now know that much of the reason for the 2007 low point of ice cover was that winds and currents pushed Arctic ice out of the Arctic to warmer parts of the Atlantic, where it then melted normally. It has since recovered dramatically. Himalayan glaciers increase and decrease, and always have, just like glaciers all over the world. Claims in the IPCC report that they will disappear by 2035 are flat out wrong. The error was caused because for years the area of Himalayan glaciers were measured in November, when snow cover made them look bigger. When the time of measurement was switched to September, they amazingly looked smaller. Although Indian scientists understood this, the journalists whose comments were hijacked for the IPCC report did not. The Amazonian rain forest can be compared to polar bears. The biggest threat it faces is encroachment of humans on its territory. The Amazon is being torn down for firewood, hardwood furniture and living space. It is being burned for slash and burn agriculture--some of that to grow biofuels to combat global warming. Like all forests, it is vulnerable to drought--being rainforest, it is more vulnerable than some other forests. If global warming produces drought in the Amazon, it will have an impact. However, the computer models that project scenarios of global warming cannot produce sufficient detail to say whether global warming will bring drought to the Amazon. The most that models can say is that overall precipitation worldwide should increase by 5%. Hurricanes and floods cause damage. Loss of life due to them has been reduced by between 95% and 99%, due to better weather predictions, but damage has increased. But none of the increase is attributable to climate change. Rather, a host of papers have shown that all of the increased damages due to hurricanes and floods is easily explained by richer people building more expensive property in areas vulnerable to storms and floods. African agriculture is, like agriculture anywhere, vulnerable to drought--just like the Amazon rainforest. However, a single report examining the possible effects of drought on cereal production on irrigated farms in 3 African countries was taken by the IPCC and reported as the probable future for all agricultural production throughout all the continent. The report was incorrect. African agricultural production is increasing and is expected to increase in the future. The Future Is Not Likely To Be As Desperate As We Are Told The rate of temperature rise has slowed, from about 2 degrees C per century (1975-19998) to about 1.2 degrees C per century (1995-2009). However, the recent slowdown is over too short a period to be statistically significant. Nonetheless, this is quite different from projections of accelerating temperature rises. This is what Phil Jones, director at CRU and a staunch advocate of the global warming establishment, said in an interview last week. Flaws in recent scientific studies have been found which make it distinctly possible that the temperature rises we have experienced are not unique--not even unusual. Keith Briffa, a member of the CRU team and a staunch advocate of the global warming establishment, said that he thought temperatures had been warmer than today 1,000 years ago in an email that was part of the Climategate release of emails and documents. Arctic ice has recovered about 25% of the ice it lost in 2007. Hurricanes are predicted to be less frequent in future--although it is possible that some will be stronger. The Amazon and polar bears both need our help and attention--but the current threats to them are from sources other than climate change, and we can easily make both strong enough to resist climate change if we change our current bad habits of shooting polar bears and burning down forests. Global warming is predicted to provide net benefits to many parts of the world, especially in the first few decades of this century. Generally speaking, cold kills more people than heat (although this is not a straightforward issue), CO2 is often good for many crops (but not all, and it's good for weeds as well), and the natural progress of economic development will strengthen the communities of people who are currently very poor enough that, like the Amazon and the polar bear, they will be better able to resist the effects of climate change after 2050. A generation of politicians supported by a cadre of scientists have consistently exaggerated the extent of the effects of past and projected climate change due to human contributions of CO2. This has distorted the debate, caused enormous expenditures of taxpayers' money on green projects that will have little or no effect on global warming and led to scientific misbehaviour that threatens public confidence in the best way we have for understanding the world around us. The scientists and politicians who have performed this disservice need to be held accountable for this. It has badly distracted us from doing the right things at the right times to take better care of each other and the planet we live on.

#### Nuclear winter outweighs and turns warming, faster, no adaptation.

Starr 2008

Steven, Associate member of the Nuclear Age Peace Foundation Director of Clinical Laboratory Science Program, University of Missouri-Columbia, Catastrophic Climatic Consequences of Nuclear Conflict, International Network of Engineers and Scientists Against Proliferation, Bulletin 28 April 2008, http://www.inesap.org/bulletin-28/catastrophic-climatic-consequences-nuclear-conflict

Climatic changes resulting from nuclear conflict would occur many thousands of times faster – and thus would likely be far more catastrophic – than the climatic changes predicted as a result of global warming.40 The rapidity of the war-induced changes, appearing in a matter of days and weeks, would allow human populations and the whole plant and animal kingdoms no time to adapt. It is worth noting that the same methods and climate models used to predict global warming were used in these studies to predict global cooling resulting from nuclear war. These climate models have proved highly successful in describing the cooling effects of volcanic clouds during extensive U.S. evaluations and in international intercomparisons performed as part of the Fourth Assessment of the Intergovernmental Panel on Climate Change.41 Predicted drops in average global temperatures caused by small, moderate, and large nuclear conflicts are contrasted with the effects of global warming during the last century in Figure 4 and with average surface air temperatures during the last 1,000 years in Figure 5. There are, of course, other important considerations which must be made when estimating the overall environmental and ecological impacts of nuclear war. These must include the release of enormous amounts of radioactive fallout, pyrotoxins, and toxic industrial chemicals into the ecosystems. A decade after the conflict, when the smoke begins to clear, there will also be massive increases in the amount of deadly ultraviolet light which will reach the surface of the Earth as a result of ozone depletion. All these by-products of nuclear war must be taken into account when comparing the danger of nuclear conflict to other potential dangers now confronting humanity and life on Earth. Conclusions We cannot allow our political and military leaders to continue to ignore the potential cataclysmic climatic and environmental consequences posed by the use of nuclear weapons. Civilization remains at risk from nuclear winter despite a three-fold reduction in global nuclear arsenals during the last 20 years. This is due in part to the fact that nuclear arms control agreements have focused primarily on the dismantlement of delivery systems and have failed to include the verified dismantlement of nuclear warheads. Future negotiations must consider all the potential effects of the total number of nuclear weapons in the nuclear arsenals.44 The U.S. and Russia must recognize the senselessness of continued planning for a nuclear first-strike which, if launched, would make the whole world including their own country uninhabitable. As a first step, they should end their preparations for the pre-emptive use of their nuclear arsenals, stand-down their high-alert strategic nuclear forces, and eliminate the standard operating procedure of launch-on-warning.45 It is essential that all the nuclear weapon states be convinced of the need to honor their commitments under Article VI of the Non-Proliferation Treaty, to “act in good faith” to eliminate their nuclear arsenals. As long as they ignore this commitment and maintain nuclear weaponry as the cornerstone of their military forces, they confer validity to the false idea that nuclear weapons provide security to those who possess them, and thus encourage non-nuclear weapon states to follow in their footsteps. The unalterable conclusion is that a nuclear war cannot be won and must not be fought. Nuclear weapons must be seen not only as instruments of mass murder, but as instruments of global annihilation which put all humanity and civilization under a common threat of destruction.

#### International initiatives fail – Rio+20 proves.

Meyer 2012

Alden, Rio+20: Too Little, Too Late?, director of strategy and policy Union of Concerned Scientists, 6-18-2012, http://blog.ucsusa.org/rio20-too-little-too-late

In releasing the report on June 6th, UNEP Executive Director Achim Steiner summed it up by saying that ”If current trends continue, if current patterns of production and consumption of natural resources prevail and cannot be reversed and ‘decoupled’, then governments will preside over unprecedented levels of damage and degradation.” He challenged world leaders coming to Rio to rise to the occasion: “The moment has come to put away the paralysis of indecision, acknowledge the facts and face up to the common humanity that unites all peoples,” he said. “Rio+20 is a moment to turn sustainable development from aspiration and patchy implementation into a genuine path to progress and prosperity for this and the next generations to come.” As the Rio summit opens this Wednesday, it doesn’t appear that leaders will seize this opportunity. The tortuous negotiations over the “focused political document” to be issued by leaders at the end of the summit on Friday demonstrate how deep the divisions are over the way forward; even the phrase “green economy” has become a lightning rod. But there are rays of hope. The Earth Summit Watch project is tracking the initiatives and commitments that countries will be putting forward this week in Rio, and it’s a growing list. UN Secretary General Ban Ki Moon’s Sustainable Energy for All initiative, which aims to double the rate of improvement in energy efficiency, double the share of renewables in the global energy mix by 2030, and provide access to modern energy services for all of humanity, is picking up support from countries, businesses, and international institutions (though a number of climate justice groups have expressed strong concerns about the initiative). And in an echo of the famous speech by 12-year-old Severn Suzuki in Rio 20 years, ago, a 17-year-old New Zealand school girl from Wellington, New Zealand, Brittany Trilford, won the “Make a Date With History” contest sponsored by the Global Campaign for Climate Action and other NGOs, and will be giving world leaders her own call to action at the opening of Rio+20′s high-level segment later this week. The problem, of course, is that these and the many other initiatives being unveiled in Rio are nowhere near adequate to the mounting environmental challenges we face. As my colleague Wael Hmaidan, executive director of Climate Action Network, recently put it, “climate change [is] like you are in a car trying to stop before reaching a ledge. We are applying the brakes but we are still far away from decelerating enough not to fall from the ledge.” And with the global economic crisis, continuing conflict and political instability in many regions, and other matters competing for their attention, it doesn’t seem that world leaders are going to muster the political will we need to confront the climate crisis — or the many other threats to the health and well-being of humanity — any time soon.

### EXT-Squo solves

Increased EPA emission authority will displace fossil fuels in favor of renewable energy, that gives the US climate credibility to stop warming with diplomacy and does so by decreasing emissions, that’s Baltimore sun.

And, a new department of the interior ruling is favoring renewables over fossil fuels now

Casey 11/12/12 (Tina is a career public information specialist and former Deputy Director of Public Affairs of the New York City Department of Environmental Protection, and author of books and articles on recycling and other conservation themes. “November Surprise? Obama Resets “All of the Above” Energy Policy” http://www.triplepundit.com/2012/11/november-surprise-obama-resets-all-above-energy-policy/)

Over the past four years, President Obama has delivered on his all-of-the-above energy policy with a healthy dose of clean energy initiatives alongside staunch support for fossil fuels. In fact, the President’s support for fossil fuels has been quite a bit more emphatic than clean energy advocates would desire. His first term saw a natural gas boom and a renewal of offshore oil leases along with new federal funding for “clean coal” technology. However, just three days after winning re-election, there’s an indication that the President is heading off in a new direction: Last Friday, the Department of the Interior proposed a steep cutback on the amount of federal land available for oil shale development. The move comes on the heels of several other initiatives that clear the way for increased clean energy production on public property, and it could set up an epic showdown with certain members of Congress when the next legislative session begins. *Putting the squeeze* on fossil fuels According to Zack Colman of thehill.com, last Friday the Department of the Interior finalized a proposal to shut oil shale development out from 1.6 million acres of federal land in several western states. The land is part of a larger area that had been previously slated for oil shale by the Bush Administration. It’s important to note that oil shale is not the same thing as shale oil. As we explained in an earlier article, oil shale refers to a type of rock that contains a significant amount of organic material called kerogen. Basically, kerogen rock is a form of low-grade fuel. When subjected to high heat, it produces a vapor that can be cooled and then reduced to oil. That’s entirely different from shale oil. Shale oil refers to oil that can be extracted from shale formations by the drilling method called fracking or hydraulic fracturing. Fracking is also used to extract natural gas from shale formations.There is another important difference. Putting aside environmental issues for the moment, fracking is a cost-effective technology that has proven itself in the marketplace. In contrast, oil shale processing is still in the experimental phase and there are significant operational obstacles to surmount before it’s ready for prime time. In addition to ripping up virgin landscapes, the production of oil shale involves copious amounts of water, a scarce commodity in the western U.S. these days. As matter of rational public policy for the use of federal property, oil shale faces steep competition from other new energy technologies, namely wind, solar and other renewable forms of energy. Opening the door for clean energy The Obama Administration’s recent energy moves weren’t all bad news for fossil fuels. For example, on October 25, the administration announced a continuation of last year’s offshore oil leases in the Gulf of Mexico. However, on balance, the last few weeks saw a flurry of activity in favor of alternative energy. On October 23, the administration announced an initiative that will open 96,000 acres of waters off the coast of Delaware for commercial alternative energy development. On October 12, the administration announced that it had put the finishing touches on an environmental impact statement for utility-scale solar energy development on public land in Arizona, California, Colorado, Nevada, New Mexico and Utah, complete with access to existing or planned transmission lines. Just a few days earlier, on October 9, the administration announced that it had approved public lands for wind power development consisting of the Chokecherry and Sierra Madre Wind Energy Project in Wyoming. That complex alone has the potential for up to 3,000 megawatts. Pushing the timeline back a couple of months, in August the Departments of the Interior and Defense signed a memorandum of understanding that makes 13 million acres of public land available as potential sites for clean energy development. The land had previously been set aside for military use, including training. Aside from reserving more public land for alternative energy, the first term of the Obama Administration was marked by a series of initiatives aimed at leveraging private dollars and public resources for alternative energy. Last year, the Department of Defense launched the Energy Initiatives Task Force, to streamline the process for private companies to build utility-scale alternative energy installations on military property. Another recent initiative is the Re-Powering America’s Land program, which aims to reclaim Superfund sites, brownfields and other classified lands for wind and solar production. In the summer of 2011, the administration also launched an initiative that marries rural economic development with a full-bore advanced biofuels program, including research and development as well as support for building refineries and growing biofuel crops. The initiative is supported by a memorandum of understanding between the Departments of Agriculture and Energy. The Navy is a partner in the effort, serving as a large-scale customer to help kickstart the commercial market for new biofuel products.

Renewable energy is competitive now---will be 80 per cent of our energy by 2050

Cunningham 8/27/12 (Nicholas Cunningham “U.S. Has Potential for 80% Renewables by 2050” http://americansecurityproject.org/blog/2012/u-s-has-potential-for-80-renewables-by-2050/)

A June report from the National Renewable Energy Laboratory (NREL) estimated that renewable energy could provide 80% of the nation’s electricity demand by 2050 (Check out this really cool animated map that shows how our electricity mix changes over time under this scenario). In July, NREL put out another report that looked at the renewable potential state by state. The results were interesting in that all states have large potential for renewable energy. Even the Southeast, where many politicians believe renewable energy is more difficult to pull off, has large potential. A mix of solar, offshore wind and biomass could provide a big chunk of electricity demand for states in the Southeast. Although a theoretical exercise, the report highlights an important point. Some politicians dismiss renewable energy as a niche market, but the upside is huge. Costs are rapidly coming down for solar and wind power. The average price for solar has dropped by nearly 50% since the beginning of 2011, for example. The rate of solar and wind installations are strong in 2012. The solar industry installed over 500 megawatts (MW) in the first quarter of this year, its second highest quarter on record. The wind industry installed 2,896 MW in the first half of 2012, a 34% increase from the year before. (It should be noted, however, that despite this progress, the wind industry faces an uncertain future with the expiration of the production tax credit, a key policy incentive, looming over the industry). Renewable energy critics point to the fact that many renewable energy technologies are not ready to compete with coal and natural gas. It is true that low natural gas prices are making it extremely difficult for the renewable energy industry. However, natural gas prices have historically been quite volatile. If natural gas prices rise, renewable energy will suddenly look very attractive. Bloomberg New Energy Finance predicts that the average wind farm will reach grid-parity by 2016. Fang Peng, an executive at JA Solar, a large Chinese solar manufacturer, predicts that solar will be cost-competitive with fossil fuels in most places by 2015. He said this will lead to a “second wave of growth.”

### EXT-No Extinction

#### No impact to warming, the world is highly adapaptable, we survived an asteroid, and more C02 escapes than your ev assumes, this is from a peer reviewed science journal using NASA data

Taylor 11 (James, is a senior fellow for environment policy at the Heartland Institute and managing editor of Environment & Climate News. “New NASA Data Blow Gaping Hole In Global Warming Alarmism” <http://www.forbes.com/sites/jamestaylor/2011/07/27/new-nasa-data-blow-gaping-hold-in-global-warming-alarmism/>)

NASA satellite data from the years 2000 through 2011 show the Earth’s atmosphere is allowing far more heat to be released into space than alarmist computer models have predicted, reports a new study in the peer-reviewed science journal Remote Sensing. The study indicates far less future global warming will occur than United Nations computer models have predicted, and supports prior studies indicating increases in atmospheric carbon dioxide trap far less heat than alarmists have claimed. Study co-author Dr. Roy Spencer, a principal research scientist at the University of Alabama in Huntsville and U.S. Science Team Leader for the Advanced Microwave Scanning Radiometer flying on NASA’s Aqua satellite, reports that real-world data from NASA’s Terra satellite contradict multiple assumptions fed into alarmist computer models. “The satellite observations suggest there is much more energy lost to space during and after warming than the climate models show,” Spencer said in a July 26 University of Alabama press release. “There is a huge discrepancy between the data and the forecasts that is especially big over the oceans.” In addition to finding that far less heat is being trapped than alarmist computer models have predicted, the NASA satellite data show the atmosphere begins shedding heat into space long before United Nations computer models predicted. The new findings are extremely important and should dramatically alter the global warming debate. Scientists on all sides of the global warming debate are in general agreement about how much heat is being directly trapped by human emissions of carbon dioxide (the answer is “not much”). However, the single most important issue in the global warming debate is whether carbon dioxide emissions will indirectly trap far more heat by causing large increases in atmospheric humidity and cirrus clouds. Alarmist computer models assume human carbon dioxide emissions indirectly cause substantial increases in atmospheric humidity and cirrus clouds (each of which are very effective at trapping heat), but real-world data have long shown that carbon dioxide emissions are not causing as much atmospheric humidity and cirrus clouds as the alarmist computer models have predicted. The new NASA Terra satellite data are consistent with long-term NOAA and NASA data indicating atmospheric humidity and cirrus clouds are not increasing in the manner predicted by alarmist computer models. The Terra satellite data also support data collected by NASA’s ERBS satellite showing far more longwave radiation (and thus, heat) escaped into space between 1985 and 1999 than alarmist computer models had predicted. Together, the NASA ERBS and Terra satellite data show that for 25 years and counting, carbon dioxide emissions have directly and indirectly trapped far less heat than alarmist computer models have predicted. In short, the central premise of alarmist global warming theory is that carbon dioxide emissions should be directly and indirectly trapping a certain amount of heat in the earth’s atmosphere and preventing it from escaping into space. Real-world measurements, however, show far less heat is being trapped in the earth’s atmosphere than the alarmist computer models predict, and far more heat is escaping into space than the alarmist computer models predict.

Experts agree

Hsu 10 (Jeremy, Live Science Staff, July 19, pg. <http://www.livescience.com/culture/can-humans-survive-extinction-doomsday-100719.html>)

His views deviate sharply from those of most experts, who don't view climate change as the end for humans. Even the worst-case scenarios discussed by the Intergovernmental Panel on Climate Change don't foresee human extinction. "The scenarios that the mainstream climate community are advancing are not end-of-humanity, catastrophic scenarios," said Roger Pielke Jr., a climate policy analyst at the University of Colorado at Boulder. Humans have the technological tools to begin tackling climate change, if not quite enough yet to solve the problem, Pielke said. He added that doom-mongering did little to encourage people to take action. "My view of politics is that the long-term, high-risk scenarios are really difficult to use to motivate short-term, incremental action," Pielke explained. "The rhetoric of fear and alarm that some people tend toward is counterproductive." Searching for solutions One technological solution to climate change already exists through carbon capture and storage, according to Wallace Broecker, a geochemist and renowned climate scientist at Columbia University's Lamont-Doherty Earth Observatory in New York City. But Broecker remained skeptical that governments or industry would commit the resources needed to slow the rise of carbon dioxide (CO2) levels, and predicted that more drastic geoengineering might become necessary to stabilize the planet. "The rise in CO2 isn't going to kill many people, and it's not going to kill humanity," Broecker said. "But it's going to change the entire wild ecology of the planet, melt a lot of ice, acidify the ocean, change the availability of water and change crop yields, so we're essentially doing an experiment whose result remains uncertain."

Previous temperature spikes disprove the impact

Singer, PhD physics – Princeton University and professor of environmental science – UVA, consultant – NASA, GAO, DOE, NASA, Carter, PhD paleontology – University of Cambridge, adjunct research professor – Marine Geophysical Laboratory @ James Cook University, and Idso, PhD Geography – ASU, ‘11

(S. Fred, Robert M. and Craig, “Climate Change Reconsidered,” 2011 Interim Report of the Nongovernmental Panel on Climate Change)

Research from locations around the world reveal a significant period of elevated air temperatures that immediately preceded the Little Ice Age, during a time that has come to be known as the Little Medieval Warm Period. A discussion of this topic was not included in the 2009 NIPCC report, but we include it here to demonstrate the existence of another set of real-world data that do not support the IPCC‘s claim that temperatures of the past couple of decades have been the warmest of the past one to two millennia. In one of the more intriguing aspects of his study of global climate change over the past three millennia, Loehle (2004) presented a graph of the Sargasso Sea and South African temperature records of Keigwin (1996) and Holmgren et al. (1999, 2001) that reveals the existence of a major spike in surface air temperature that began sometime in the early 1400s. This abrupt and anomalous warming pushed the air temperatures of these two records considerably above their representations of the peak warmth of the twentieth century, after which they fell back to pre-spike levels in the mid-1500s, in harmony with the work of McIntyre and McKitrick (2003), who found a similar period of higher-than-current temperatures in their reanalysis of the data employed by Mann et al. (1998, 1999).

## \*\*\*1NR

### \*\*\*Poltiics

### 1NR Impact Wall

#### Economic decline risks nuclear conflict, increased propensity to fight over resources, military stimulus causes proliferation and miscalculation, short timeframe for decisions magnifies our impact, that’s Harris and Burrows, prefer our evidence because it assumes the current recession.

Economic integration prevents their impacts from escalating
Griswold, 7 (Daniel, director of the Center for Trade Policy Studies, 4/20/2007, Trade, Democracy and Peace, HYPERLINK "<http://www.freetrade.org/node/681>" <http://www.freetrade.org/node/681>)
A little-noticed headline on an Associated Press story a while back reported, "War declining worldwide, studies say." In 2006, a survey by the Stockholm International Peace Research Institute found that the number of armed conflicts around the world has been in decline for the past half-century. Since the early 1990s, ongoing conflicts have dropped from 33 to 17, with all of them now civil conflicts within countries. The Institute's latest report found that 2005 marked the second year in a row that no two nations were at war with one another. What a remarkable and wonderful fact. The death toll from war has also been falling. According to the Associated Press report, "The number killed in battle has fallen to its lowest point in the post-World War II period, dipping below 20,000 a year by one measure. Peacemaking missions, meanwhile, are growing in number." Current estimates of people killed by war are down sharply from annual tolls ranging from 40,000 to 100,000 in the 1990s, and from a peak of 700,000 in 1951 during the Korean War. Many causes lie behind the good news--the end of the Cold War and the spread of democracy, among them--but expanding trade and globalization appear to be playing a major role in promoting world peace. Far from stoking a "World on Fire," as one misguided American author argued in a forgettable book, growing commercial ties between nations have had a dampening effect on armed conflict and war. I would argue that free trade and globalization have promoted peace in three main ways. First, as I argued a moment ago, trade and globalization have reinforced the trend toward democracy, and democracies tend not to pick fights with each other. Thanks in part to globalization, almost two thirds of the world's countries today are democracies--a record high. Some studies have cast doubt on the idea that democracies are less likely to fight wars. While it's true that democracies rarely if ever war with each other, it is not such a rare occurrence for democracies to engage in wars with non-democracies. We can still hope that as more countries turn to democracy, there will be fewer provocations for war by non-democracies. A second and even more potent way that trade has promoted peace is by promoting more economic integration. As national economies become more intertwined with each other, those nations have more to lose should war break out. War in a globalized world not only means human casualties and bigger government, but also ruptured trade and investment ties that impose lasting damage on the economy. In short, globalization has dramatically raised the economic cost of war.

#### And, these wars cause extinction

Daguzan 10 (Citing Jean Francois, PhD and Senior Research Fellow at the Foundation for Strategic Research, “Economic crisis threatens existence of human beings” November 26, 2010, Right Vision News, pg online @ lexisnexis)

The financial and economic crisis being faced by the world is in fact a human catastrophe as it may threaten the well-being and existence of human beings in the globe, said Dr. Jean-Francois Daguzan, senior research fellow at the Foundation for Strategic Research, France. He was speaking at a roundtable discussion on ‘The Strategic Consequences of World Financial and Economic Crisis’ organised by the South Asia Strategic Stability Institute (SASSI) here on Wednesday. Former ambassador Tasawur Naqvi conducted the proceedings. Dr. Jean-Francois Daguzan said that the crisis could lead to violence. Every effort should be made to control it as it may lead to risky and dangerous situations. He said that the balance of power had already changed. He said that if economic crisis is compared with 9/11 and invasions of Iraq and Afghanistan, the World Trade Centre debacle seemed to be a contingent affair. The financial crisis to him was like a nuclear war, which is tilting the balance of power in the world. He said that an amount of $50,000 billion went to the aid of developing nations. He noted the impact of the snowballing crisis on stock exchanges and investment potential of different countries. He said that the crisis also affected stability of nations by impacting equities and stock exchanges. He said that the war in currencies is the last impact of the crisis in an age of artificial monetary powers of currencies, which would provoke and continue with economic crises within countries. He said that it is rebalancing the power politics in the world. He enumerated Southeast Asia’s economies facing problems in 1988 when China was big, but not enough to become the lone competitor of the west.

We turn primacy

Khalilzad 2011

Zalmay Khalilzad was the United States ambassador to Afghanistan, Iraq, and the United Nations during the presidency of George W. Bush and the director of policy planning at the Defense Department from 1990 to 1992. The Economy and National Security. The National Review February 8th 2011 http://www.nationalreview.com/blogs/print/259024

Today, economic and fiscal trends pose the most severe long-term threat to the United States’ position as global leader. While the United States suffers from fiscal imbalances and low economic growth, the economies of rival powers are developing rapidly. The continuation of these two trends could lead to a shift from American primacy toward a multi-polar global system, leading in turn to increased geopolitical rivalry and even war among the great powers. The current recession is the result of a deep financial crisis, not a mere fluctuation in the business cycle. Recovery is likely to be protracted. The crisis was preceded by the buildup over two decades of enormous amounts of debt throughout the U.S. economy — ultimately totaling almost 350 percent of GDP — and the development of credit-fueled asset bubbles, particularly in the housing sector. When the bubbles burst, huge amounts of wealth were destroyed, and unemployment rose to over 10 percent. The decline of tax revenues and massive countercyclical spending put the U.S. government on an unsustainable fiscal path. Publicly held national debt rose from 38 to over 60 percent of GDP in three years. Without faster economic growth and actions to reduce deficits, publicly held national debt is projected to reach dangerous proportions. If interest rates were to rise significantly, annual interest payments — which already are larger than the defense budget — would crowd out other spending or require substantial tax increases that would undercut economic growth. Even worse, if unanticipated events trigger what economists call a “sudden stop” in credit markets for U.S. debt, the United States would be unable to roll over its outstanding obligations, precipitating a sovereign-debt crisis that would almost certainly compel a radical retrenchment of the United States internationally. Such scenarios would reshape the international order. It was the economic devastation of Britain and France during World War II, as well as the rise of other powers, that led both countries to relinquish their empires. In the late 1960s, British leaders concluded that they lacked the economic capacity to maintain a presence “east of Suez.” Soviet economic weakness, which crystallized under Gorbachev, contributed to their decisions to withdraw from Afghanistan, abandon Communist regimes in Eastern Europe, and allow the Soviet Union to fragment. If the U.S. debt problem goes critical, the United States would be compelled to retrench, reducing its military spending and shedding international commitments. We face this domestic challenge while other major powers are experiencing rapid economic growth. Even though countries such as China, India, and Brazil have profound political, social, demographic, and economic problems, their economies are growing faster than ours, and this could alter the global distribution of power. These trends could in the long term produce a multi-polar world. If U.S. policymakers fail to act and other powers continue to grow, it is not a question of whether but when a new international order will emerge. The closing of the gap between the United States and its rivals could intensify geopolitical competition among major powers, increase incentives for local powers to play major powers against one another, and undercut our will to preclude or respond to international crises because of the higher risk of escalation. The stakes are high. In modern history, the longest period of peace among the great powers has been the era of U.S. leadership. By contrast, multi-polar systems have been unstable, with their competitive dynamics resulting in frequent crises and major wars among the great powers. Failures of multi-polar international systems produced both world wars. American retrenchment could have devastating consequences. Without an American security blanket, regional powers could rearm in an attempt to balance against emerging threats. Under this scenario, there would be a heightened possibility of arms races, miscalculation, or other crises spiraling into all-out conflict. Alternatively, in seeking to accommodate the stronger powers, weaker powers may shift their geopolitical posture away from the United States. Either way, hostile states would be emboldened to make aggressive moves in their regions. As rival powers rise, Asia in particular is likely to emerge as a zone of great-power competition. Beijing’s economic rise has enabled a dramatic military buildup focused on acquisitions of naval, cruise, and ballistic missiles, long-range stealth aircraft, and anti-satellite capabilities. China’s strategic modernization is aimed, ultimately, at denying the United States access to the seas around China. Even as cooperative economic ties in the region have grown, China’s expansive territorial claims — and provocative statements and actions following crises in Korea and incidents at sea — have roiled its relations with South Korea, Japan, India, and Southeast Asian states. Still, the United States is the most significant barrier facing Chinese hegemony and aggression.

### 1NR Turns Warming

Elliott 2008

Larry, Economics Editor at the Guardian, Can a dose of recession solve climate change?, http://www.guardian.co.uk/business/2008/aug/25/economicgrowth.globalrecession

There are many reasons why it is not quite as simple as that. My rudimentary understanding of the science of climate change is that concentrations of greenhouse gases have been building up over many decades, and you can't simply turn them off like a tap. Even a three- or four-year 1930s-style global slump would have little or no impact, particularly if it was followed by a period of vigorous catch-up growth. On a chart showing growth since the dawn of the industrial age 250 years ago, the Great Depression is a blip. Similarly, Britain's trade deficit always comes down in recessions because imports go down, but then widens again once the economy returns to its trend rate of growth. Politically, recessions are not helpful to the cause of environmentalism. Climate change is replaced by concerns about unemployment and stimulating growth. To be fair, politicians respond to what they hear from voters: Gordon Brown's survival as prime minister depends on how well his package of economic measures is received, not on what he does or doesn't do to limit greenhouse gases. Looking back, it is clear that every advance in the green movement has coincided with period of strong growth - the early 1970s, the late 1980s and the first half of the current decade. It was tough enough to get world leaders to make tackling climate change a priority when the world economy was experiencing its longest period of sustained growth: it will be mightily difficult to persuade them to take measures that might have a dampen growth while the dole queues are lengthening. Those most likely to suffer are workers in the most marginal jobs and pensioners who will have to pay perhaps 20% of their income on energy bills. Hence, recession does not offer even a temporary solution to the problem of climate change and it is a fantasy to imagine that it does. The real issue is whether it is possible to challenge the "growth-at-any-cost model" and come up with an alternative that is environmentally benign, economically robust and politically feasible. Hitting all three buttons is mightily difficult but attempting to do so is a heck of a lot more constructive than waiting for industrial capitalism to collapse under the weight of its own contradictions.

#### CIR is key to solving an impeding aging crisis---the impact is a collapse of the US

Weissmann 12 (Jordan Weissmann is an associate editor at The Atlantic. He has written for a number of publications, including The Washington Post and The National Law Journal. “Here's an Idea That Could Save America's Economy: More Americans” http://www.theatlantic.com/business/archive/2012/11/heres-an-idea-that-could-save-americas-economy-more-americans/265776/

As Congress crawls its way towards what might well be a historic debate on immigration reform, there's one, easy-to-repeat point our legislators need to keep in mind: The United States needs more people. Truly, it does. Our birth rates are falling as our population is aging. That means fewer workers and more retirees. Even if you completely ignore the challenge of paying for Medicare and Social Security, that combination makes a poor recipe for long-term economic success. Just ask Japan what it's like when your country turns into a nation-sized nursing home. None of this seems to have registered with some of our policy makers. This morning, the House of Representatives came within just a nose hair of accomplishing something constructive when it passed a bill that would create 55,000 new annual visas for foreign students who earn graduate degrees in science, technology, engineering, and mathematics (aka, the STEM fields). That was not controversial. The idea of stapling greencards to diplomas is possibly the single biggest consensus issue in Washington at this moment. Heck, it's practically the only consensus issue. Who, after all, doesn't want to keep around brilliant engineers our tax dollars have helped educate? Nonetheless, the legislation approved by House Republicans drew widespread opposition from Democrats, who criticized it for treating immigration as "zero-sum game." In order to make room for the STEM grads, the bill's authors nixed another visa program aimed at countries that traditionally send low numbers of migrants to the U.S. Why force the trade-off and risk alienating liberals from what would otherwise be a rare moment of bipartisan accord? As a House Judiciary Committee aide explained to me in September, Republican leaders "did not want to increase legal immigration at a time when 8 percent of Americans are unemployed." Zero sum indeed. The United States already welcomes more than a million immigrants each year. The idea that rolling out the welcome mat for 55,000 more would actually exacerbate unemployment here is laughable on its face, especially considering that many of these grads specialize in fields suffering a skills shortage and will pump more spending into their local economies. But what's most worrisome about the GOP's line of thinking isn't the wretched reasoning or what it portends for the STEM bill, which may well not make it past the Democratic controlled Senate. Rather, it's the possibility that this is a preview of what the GOP's negotiating stance will be when it comes time to talk about comprehensive immigration reform next year, as Capitol Hill looks likely to do. Even if we give undocumented immigrants who are currently in the country a path to citizenship, it will be a horrible missed opportunity if we fail to raise the overall ceiling for legal immigration. This could be a once-in-a-generation chance to revamp our system in a way that ensures we have enough young workers flowing into the country years from now to support our graying population. And without question, that will be one of our most pressing challenges in the decades to come. Yesterday, the Pew Research Center reported that America's birthrate fell 8 percent last year to its lowest level since 1920, when the country started keeping accurate records of the data. Although the drop-off can largely be blamed on the recession -- when the economy turns sour, families very reasonably tend to hold off on having kids -- it was both a brusque reminder of the demographic trouble the United States may one day face, and why we won't be able to fix it if we keep legal immigration at the same level it is now. As Pew explained, immigrant women today have children about 50 percent more often than native women. The reason the U.S. birth rate dropped as much as it did during the recession was that those immigrant families, whose finances don't offer a lot of cushion from the economy, had drastically fewer babies than in years past. The birthrate among U.S. born Americans fell just 6 percent from 2007 to 2010. Among the foreign-born, by comparison, it fell 14 percent. Among Mexican-born females, the dropoff was an astounding 23 percent. In short, we've been relying on working class immigrants to have lots of children to keep our country young(ish). And over the past few economically disastrous years that fact came back to bite us in our birth rates. When the economy recovers, hospital nurseries should fill back up too, especially as couples that held off on getting pregnant for financial reasons decide to make up for lost time. But over the long run, there's a chance we'll never return to the fertility levels of even the recent past. Birth rates among immigrants had been on a downward slope for most the two decades before the crash. Thank the double edged sword of family planning: great for individual families, terrible for our long-term economic plans. Chances are, then, that if we keep letting in the same number of new immigrants each year, we're looking at lower birth rates in the future. And, as a result, we're looking at fewer young people to support the aging Americans as they gobble up entitlement benefits. By 2030, about 19 percent of America's population is likely to be over the age of 65, up from about 13 percent just a few years ago. For reference, that would put us in 18 years exactly where doddering, demographically challenged Japan is today. There are two ways to deal with this problem. One is to sit around and pray that 3-child families suddenly come back into vogue among American couples, even at a time when wages are stagnant, healthcare is becoming ludicrously expensive, and careers are more volatile than ever. If that's your preferred approach, good luck. The other option is to let more immigrants into the country. Let in more ambitious immigrant families who have the desire to move to a abroad and work hard to make a better life. Let in more mothers and fathers who will likely want bigger broods than American born couples. It will mean more workers shopping, buying cars, and paying into social security and medicare, and it will mean more economic growth.

#### Aging crisis outweighs---more probable and controls all of their impacts

Peterson 99, (Blackstone Group Chairman, Institute for International Economics Chairman, NY Federal Reserve Deputy Chairman, Concord Coalition President, Co-Founder, CFR Chairman, February 1999, Peter, "Gray Dawn: The Global Aging Crisis," Foreign Affairs, Lexis)

THE LIST of major global hazards in the next century has grown long and familiar. It includes the proliferation of nuclear, biological, and chemical weapons, other types of high-tech terrorism, deadly superviruses, extreme climate change, the financial, economic, and political aftershocks of globalization, and the violent ethnic explosions waiting to be detonated in today's unsteady new democracies. Yet there is a less-understood challenge -- the graying of the developed world's population -- that may actually do more to reshape our collective future than any of the above.

Over the next several decades, countries in the developed world will experience an unprecedented growth in the number of their elderly and an unprecedented decline in the number of their youth. The timing and magnitude of this demographic transformation have already been determined. Next century's elderly have already been born and can be counted -- and their cost to retirement benefit systems can be projected.

Unlike with global warming, there can be little debate over whether or when global aging will manifest itself. And unlike with other challenges, even the struggle to preserve and strengthen unsteady new democracies, the costs of global aging will be far beyond the means of even the world's wealthiest nations -- unless retirement benefit systems are radically reformed. Failure to do so, to prepare early and boldly enough, will spark economic crises that will dwarf the recent meltdowns in Asia and Russia.

How we confront global aging will have vast economic consequences costing quadrillions of dollars over the next century. Indeed, it will greatly influence how we manage, and can afford to manage, the other major challenges that will face us in the future.

For this and other reasons, global aging will become not just the transcendent economic issue of the 21st century, but the transcendent political issue as well. It will dominate and daunt the public-policy agendas of developed countries and force the renegotiation of their social contracts. It will also reshape foreign policy strategies and the geopolitical order.

### 1NR A2: No Impact

#### Yes impact – best evidence proves

Royal 2010

Jedediah, Director of Cooperative Threat Reduction at the U.S. Department of Defense, “Economic Integration, Economic Signaling and the Problem of Economic Crises,” in Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, pg. 213-215

Less intuitive is how periods of economic decline may increase the likelihood of extern conflict. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defense behavior of interdependent states. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level, Pollins (2008) advances Modelski and Thompson’s (1996) work on leadership cycle theory, finding that rhythms in the global economy are associated with the rise and fall of a pre-eminent power and the often bloody transition from one pre-eminent leader to the next. As such, exogenous shocks such as economic crisis could usher in a redistribution of relative power (see also Gilpin, 1981) that leads to uncertainty about power balances, increasing the risk of miscalculation (Fearon, 1995). Alternatively, even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power (Werner, 1999). Seperately, Pollins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level, Copeland’s (1996, 2000) theory of trade expectations suggests that ‘future expectation of trade’ is a significant variable in understanding economic conditions and security behavious of states. He argues that interdependent states are likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations, However, if the expectations of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases, as states will be inclined to use force to gain access to those resources. Crisis could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states. Third, others have considered the link between economic decline and external armed conflict at a national level. Blomberg and Hess (2002) find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn. They write, The linkages between internal and external conflict and prosperity are strong and mutually reinforcing. Economic conflict tends to spawn internal conflict, which in turn returns the favor. Moreover, the presence of a recession tends to amplify the extent to which international and external conflict self-reinforce each other. (Blomberg & Hess, 2002. P. 89) Economic decline has been linked with an increase in the likelihood of terrorism (Blomberg, Hess, & Weerapana, 2004), which has the capacity to spill across borders and lead to external tensions. Furthermore, crises generally reduce the popularity of a sitting government. ‘Diversionary theory’ suggests that, when facing unpopularity arising from economic decline, sitting governments have increase incentives to fabricate external military conflicts to create a ‘rally around the flag’ effect. Wang (1996), DeRouen (1995), and Blomberg, Hess, and Thacker (2006) find supporting evidence showing that economic decline and use of force are at least indirectly correlated. Gelpi (1997), Miller (1999), and Kisangani and Pickering (2009) suggest that the tendency towards diversionary tactics are greater for democratic states than autocratic states, due to the fact that democratic leaders are generally more susceptible to being removed from office due to lack of domestic support. DeRouen (2000) has provided evidence showing that periods of weak economic performance in the United States, and thus weak Presidential popularity, are statistically linked to an increase in the use of force. In summary, recent economic scholarship positively correlated economic integration with an increase in the frequency of economic crises, whereas political science scholarship links economic decline with external conflict at systemic, dyadic and national levels. This implied connection between integration, crisis and armed conflict has not featured prominently in the economic-security debate and deserves more attention.

### 1NR A2: Wont Pass

#### Obama holds all of the cards---assures passage

Weigant 1/23 (Chris WeigantPolitical writer and blogger at ChrisWeigant.com “Handicapping Obama's Second Term Agenda”

http://www.huffingtonpost.com/chris-weigant/obama-second-term\_b\_2537802.html

The second big agenda item is immigration reform. President Obama holds virtually all the cards, politically, on this one. All Republicans who can read either demographics or polling numbers know full well that this may be their party's last chance not to go the way of the Whigs. Their support among Latinos is dismal, and even that's putting it politely. Some Republicans think they have come up with a perfect solution on how to defuse the issue, but they are going to be proven sadly mistaken in the end, I believe. The Republican plan will be announced by Senator Marco Rubio at some point, and it will seem to mirror the Democratic plan -- with one key difference. Republicans -- even the ones who know their party has to do something on the immigration problem -- are balking at including a "path to citizenship" for the 11 million undocumented immigrants who are already in America. The Republicans are trying to have their cake and eat it too -- and it's not going to work. "Sure," they say, "we'll give some sort of papers to these folks, let them stay, and even let them work... but there's no need to give them the hope of ever becoming a full citizen." This just isn't going to be good enough, though. There are essentially two things citizens can do which green card holders cannot: serve on juries, and vote. The Republicans are not worried about tainted juries, in case that's not clear enough. Republicans will bend over backwards in an effort to convince Latinos that their proposal will work out just fine for everyone. Latinos, however, aren't stupid. They know that being denied any path to citizenship equals an effort to minimize their voice on the national political stage. Which is why, as I said, Obama holds all the cards in this fight. Because this is the one issue in his agenda which Republicans also have a big vested interest in making happen. Obama and the Democrats will, I believe, hold firm on their insistence on a path to citizenship, and I think a comprehensive immigration bill will likely pass some time this year, perhaps before the summer congressional break. The path to citizenship it includes will be long, expensive and difficult (Republicans will insist on at least that), but it will be there. On gun control, I think Obama will win a partial victory. On immigration, I think he will win an almost-total victory. On global warming, however, he's going to be disappointed. In fact, I doubt -- no matter how much "bully pulpiting" Obama does -- that any bill will even appear out of a committee in either house of Congress. This will be seen as Obama's "overreach" -- a bridge too far for the current political climate. Anyone expecting big legislative action on global warming is very likely going to be massively disappointed, to put it quite bluntly. In fact, Obama will signal this in the next few months, as he approves the Keystone XL pipeline -- much to the dismay of a lot of his supporters. Of course, I could be wrong about any or all of these predictions. I have no special knowledge of how things will work out in Congress in the immediate future. I'm merely making educated guesses about what Obama will be able to achieve in at least the first few years of his second term. Obama has a lot of political capital right now, but that could easily change soon. The House Republicans seem almost demoralized right now, and Obama has successfully splintered them and called their bluff on two big issues already -- but they could regroup and decide to block everything the White House wants, and damn the political consequences. Unseen issues will pop up both on the domestic and foreign policy stages, as they always do. But, for now, this is my take on how the next few years are going to play out in Washington. Time will tell whether I've been too optimistic or too pessimistic on any or all of Obama's main agenda items. We'll just have to wait and see.

Will pass

ABC 1/30 (“Obama Confident Immigration Reform Passes This Year” http://abcnews.go.com/ABC\_Univision/Politics/president-obama-confident-immigration-reform-passes-year/story?id=18358660&page=2)

President Barack Obama expressed confidence on Wednesday that he would sign comprehensive immigration reform into law by the end of this year. In an interview with Univision's Maria Elena Salinas, Obama explained that significant details of a bill still must be worked out by lawmakers, including the structure of a pathway to citizenship for many of the 11 million undocumented immigrants. But Obama said that the progress made by a bipartisan group of lawmakers in the Senate has given him hope that a deal can get done. When asked by Salinas if we will have immigration reform by the end of the year, Obama said, "I believe so." "You can tell our audience, 'Sí, se puede?'" Salinas asked. "Sí, se puede," Obama responded. Later in the interview, Obama said that he hopes a bill could be passed as early as this summer. But cognizant of deep divisions a topic like immigration has sewn in the past, Obama said that's contingent on bipartisan negotiations continuing to proceed well. "The only way this is going to get done is if the Republicans continue to work with Democrats in Congress, in both chambers, to get a bill to my desk," he said. "And I'm going to keep on pushing as hard as I can. I believe that the mood is right." Although the president threatened to introduce his own bill if negotiations in Congress stall during his speech in Las Vegas, Nevada, on Tuesday, he said he is content to let lawmakers hash out the details among themselves for the time being. "If they are on a path as they have already said, where they want to get a bill done by March, then I think that's a reasonable timeline and I think we can get that done. I'm not going to lay down a particular date because I want to give them a little room to debate," he said. "If it slips a week, that's one thing. If it starts slipping three months, that's a problem." The president's principles and the Senate's principles on immigration broadly align with one another, but there are still thorny issues that could spark a division between Obama and Republicans, such as the pathway to citizenship. The Senate's path to citizenship would allow many undocumented immigrants to obtain legal status immediately upon passage of the law. But their ability to then seek legal permanent residency would be contingent upon the U.S.-Mexico border being deemed secure. Sen. Marco Rubio (R-Fla.), a member of the bipartisan "Gang of Eight" on immigration, has been particularly vocal in stating that border security is a precondition for gaining legal permanent residence, and then citizenship. While the White House has said that it is withholding judgment on that plan until actual legislative language is drafted, Obama said that he wants a bill that makes it clear from the outset that undocumented immigrants eligible to earn their way to citizenship can eventually obtain it. "What we don't want to do is create some kind of vague prospect in the future that somehow comprehensive immigration reform that includes a pathway to citizenship will happen, you know, mañana," Obama said. "We want to make sure we are very clear this legislation provides a real pathway." The president said that enhancing border security measures and workplace enforcement provisions are a part of his plan, as well as the Senate's, and cited his administration's efforts to bulk up border security during the past four years, saying that illegal crossings have dropped 80 percent since 2000. "We have done almost everything that Republicans asked to be done several years ago as a condition to move ahead with comprehensive immigration reform," he said. "It's not as if we haven't been attentive to border security and we will continue to be attentive to border security." Obama also reiterated that his path to citizenship would be earned, meaning that undocumented immigrants would have to pass a background check, pay fines and back taxes, learn English and go to the back of the line. "That pathway will take some time. Even under our proposal, this is not a situation where overnight people are suddenly going to find themselves a citizen," he said. Obama also suggested that he wouldn't accede to a demand from immigrant-rights groups that a moratorium be placed on deportations of undocumented immigrants who otherwise do not have criminal records, saying it would amount to executive overreach. "I'm not a king," he said. But he said that passing comprehensive reform would allow him to address the record levels of deportations, which have been a grave concern to many in the Latino community.

#### ---Obama is using his political capital from the reelection to shift the political consensus

Washington Post 1/29 (“Obama makes his immigration push” http://www.washingtonpost.com/politics/obama-unveils-his-own-proposal-for-immigration-reform/2013/01/29/b27dcb78-6a47-11e2-95b3-272d604a10a3\_story\_1.html)

President Obama on Tuesday put the weight of his administration behind efforts to pass legislation allowing many of the nation’s 11 million illegal immigrants to earn citizenship, seeking to build on a rapidly shifting political consensus around the issue. Obama dedicated the first trip of his second term to calling for an overhaul of immigration laws, making clear that it is one of his top domestic priorities. The president — who has said that not passing an overhaul in his first term was his biggest failure — also suggested he has little patience for Congress and would demand that lawmakers vote on his more permissive plan if they do not swiftly pass their own. “Now is the time,” Obama said, eliciting chants of “Si, se puede” — roughly translated as “Yes, it’s possible” — from the crowd at a majority Hispanic high school here. “We can’t allow immigration reform to get bogged down in an endless debate.” Fresh off a decisive reelection, Obama is seizing this moment as one in which both sides could come together to address widespread anxieties within rising demographic groups, particularly Hispanics and Asian Americans. But obstacles still loomed large Tuesday on Capitol Hill, fueled by continued unease among conservative Republicans over going too far to loosen immigration restrictions. One of the biggest disputes centers on whether illegal immigrants would have to wait to seek a green card — the first step to full citizenship — until the U.S. border with Mexico is secure and other enforcement measures are in place. A bipartisan Senate plan released Monday would tie the possibility of citizenship to several such enforcement measures, including a system to verify the immigration status of employees. The president did not comment explicitly on that proposal in his speech, but the administration suggested in its own guidelines released Tuesday that it does not want to link the citizenship process to other goals. “It must be clear from the outset that there is a pathway to citizenship,” Obama said, adding that the administration has made great strides in an effort to toughen enforcement. Some key Republicans expressed concern with any approach that does not link border security with the proposal to offer illegal immigrants a way to become citizens.

#### Obama holds all of the cards---assures passage

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#### Bipartisan compromise and Boehner magic

Johnson 1/28 (Fawn Johnson is a correspondent for National Journal, “The 3 Big Hurdles Obama Has to Clear to Pass Immigration Reform” http://www.theatlantic.com/politics/archive/2013/01/the-3-big-hurdles-obama-has-to-clear-to-pass-immigration-reform/272584/)

House Republicans. No one expects "regular order" in the House on immigration. Any broad bill that comes to the floor under normal proceedings would certainly be doomed. The House has killed Senate immigration legislation before (in 2006), and forces are gathering to do so again. The Judiciary Committee counts several bomb throwers as members; Rep. Steve King, R-Iowa, is the most well known in immigration circles. The committee also includes ruby-red conservatives like Rep. Jim Jordan, R-Ohio, whose actions are closely scrutinized by other Republicans. Its former chairman, Rep. Lamar Smith, R-Texas, is feverishly opposed to increasing immigration, particularly for low-skilled workers. But that doesn't mean an immigration bill can't get through. A bipartisan group of House lawmakers has been quietly working on an immigration bill that would satisfy conservatives and liberals. The Republican participants are a closely-held secret, but whisperers say they include serious conservatives like Paul Ryan of Wisconsin, Ted Poe of Texas, and Raul Labrador of Idaho. House Speaker John Boehner is among the Republicans who desperately want the GOP's hand-wringing on immigration to end. He has already demonstrated that he is willing to flout party rabble-rousers with the House's recent votes on fiscal cliff taxes and Hurricane Sandy, which passed with more Democrats than Republicans. Boehner has to be careful. He only has so many chances to put incendiary legislation on the floor before his caucus stages an all-out revolt. To appease them, he will probably offer one or two high-profile House votes, where Democrats will protest like crazy, on enforcement-only immigration legislation. That gets the dealmakers to the next step, a conference committee where anything can happen. As Kennedy was fond of saying, "We'll fix it in conference." If Boehner wants the issue to go away, he might be willing to put a conference report up for a vote despite a raucous caucus. It's possible that enough Republicans could join with Democrats to support it.

### 1NR A2: DOD

#### The hill is too polarized for this to be true.

Politico 9. [2-13-09 -- http://www.politico.com/news/stories/0209/18827.html]

The Washington climate**, which led to a party-line vote on the stimulus**, has big political implications: It means that Obama will have sole ownership -- whether that means credit or blame -- for all the massive changes in government he envisions over the coming year.

#### Presidents are the most visible object, assures a link

CNN Late Edition with Wolf Blitzer 4/28/02

Bruce Morton, Cnn Correspondent: Networks will often air whatever the president says, even if he's praising the Easter Bunny. Blitzer: Competing for face time on the cable news networks. Stay with us. Blitzer: Welcome back. Time now for Bruce Morton's essay on the struggle for balanced coverage on the cable networks. Morton: The Democrats have written the three cable news networks -- CNN, Fox and MSNBC -- complaining that the Bush administration gets much more coverage than elected Democrats. They cite CNN, which they say, from January 1 through March 21, aired 157 live events involving the Bush administration, and 7 involving elected Democrats. Fox and MS, they say, did much the same thing. The coverage gap is certainly real, for several reasons. First, since September 11, the U.S. has been at war in Afghanistan, so the president has been an active commander in chief. And covering the war, networks will often air whatever the president says, even if he's praising the Easter Bunny. Plus, the White House press secretary's briefing, the Pentagon's, maybe the State Department's. Why not? It's easy, it's cheap, the cameras are pooled, and in war time, the briefings may make major news. You never know. But there's a reason for the coverage gap that's older than Mr. Bush's administration. In war or peace, the president is a commanding figure -- one man to whose politics and character and, nowadays, sex life, endless attention is paid. Congress is 535 people. What it does is complicated, compromises on budget items done in private, and lacks the drama of the White House. There's a primetime TV show about a president. None about the Congress. If a small newspaper has one reporter in Washington, he'll cover two things, the local congressional delegation and, on big occasions, the White House. So the complaining Democrats have a point, but it's worth remembering that coverage of a president, while always intense, isn't always positive. You could ask the Clintons. 9 Presidents will always get more coverage than Congresses. They're sexier. But it won't always be coverage they like.

#### Obama gets the credit or blame no mater what, focal point of politics

Rosati 4*. [Jerel A., University of South Carolina Government and International Studies professor THE POLITICS OF UNITED STATES FOREIGN POLICY, 2004, p. 80]*

*Given the popular image of presidential power,* presidents receive credit when things are perceived as going well and are blamed when things go badly. Unfortunately, American politics and the policy process are incredibly complex and beyond considerable presidential control. With so many complex issues and problems to address *– the debt problem, the economy, energy, welfare, education, the environment, foreign policy –* this is a very demanding time to be president*. As long as presidential promises and public expectations remain high, the president’s job becomes virtually an impossible task. Should success occur, given the lack of presidential power, it is probably not by the president’s own design. Nonetheless,* the president *– the person perceived to be the leader of the country –* will be rewarded in terms of public prestige, greater power, and reelection *(for him or his successor). However,* if the president is perceived as unsuccessful – a failure – this results not only in a weakened presidentbut one the public wants replaced, creating the opportunity to challenge an incumbent president or his heir as presidential nominee.

#### Obama tied himself to SMR’s

NYT 12 (“Administration to Push for Small ‘Modular’ Reactors” http://www.nytimes.com/2011/02/13/science/earth/13nuke.html?pagewanted=all)

The Obama administration’s 2012 budget proposal will include a request for money to help develop small “modular” reactors that would be owned by a utility and would supply electricity to a government lab, people involved in the effort say. The department is hoping for $500 million over five years, half of the estimated cost to complete two designs and secure the Nuclear Regulatory Commission’s approval. The reactors would be built almost entirely in a factory and trucked to a site like modular homes.

### 1NR Link Wall

The plan is politically nuclear

Fairley 10 Peter, IEEE Spectrum, May, "Downsizing Nuclear Power Plants,” 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.

#### Huge public opposition

U.S. Department of Commerce International Trade Administration 12 (“The Commercial Outlook for U.S. Small Modular Nuclear Reactors” http://trade.gov/mas/ian/build/groups/public/@tg\_ian/@nuclear/documents/webcontent/tg\_ian\_003185.pdf)

One additional obstacle is beyond the scope of this report but could play a significant role in whether SMRs are commercially deployed: public opinion. To the extent that the smaller profile of SMRs results in their deployment closer to population centers, public opposition to their deployment might rise. Deployment at existing sites, or in industrial applications away from residential areas, however, might minimize the impact of public opinion. Education about the safety features of SMRs and nuclear reactors in general could also ameliorate this concern.

Popular support generates momentum- political capital not key

Sam Youngman, The Hill, 07/27/09, Analysis: July has been disaster for Obama, Hill Dems, http://thehill.com/leading-the-news/analysis-july-has-been-disaster-for-obama-hill-dems-2009-07-27.html

Paul Light, an expert on the presidency and a professor at New York University, said the president's problems with Capitol Hill reflect "a miscalculation by the Obama administration on how political capital gets spent in Washington." Light said that capital, even for a president who enjoys immense personal popular support like Obama, is spent a bit at a time on each initiative or piece of legislation. "I think the Obama administration has been spending political capital at roughly the same rate the federal government spends money," Light said. "Eventually, it runs out." Light quoted President Lyndon Johnson, who said that "if you don't get it done in six months, you're not going to get it done." One of the reasons Obama has spent so much capital, aside from his ambitious agenda, has been his willingness to cede so much control to Congress, Light said. While lawmakers like Senate Majority Leader Harry Reid (D-Nev.) and House Speaker Nancy Pelosi (D-Calif.) are allies of the president, his political capital is not necessarily a priority of theirs. To that end, Light says, Obama has made a mistake in making Pelosi his "broker," spending his political capital but not always to his benefit. The other misstep that has bogged down the administration on healthcare specifically is Obama's inability to communicate effectively to the American people, Light said. While it is shocking to consider that Obama is anything less than one of the best communicators in modern political history, when it comes to healthcare, he simply has not been able to make the sell to people who do have health insurance. And Wednesday night's primetime press conference was a "disaster," Light said. Light said that for the president to regain political momentum, he needs to reclaim his agenda from Congress and start connecting with the public. "He needs to take this over and own it," Light said.

#### Nuclear power faces strong political opposition

JISEA 12 (The Joint Institute for Strategic Energy Analysis is operated by the Alliance for Sustainable Energy, LLC, on behalf of the U.S. Department of Energy’s National Renewable Energy Laboratory, the University of Colorado-Boulder, the Colorado School of Mines, the Colorado State University, the Massachusetts Institute of Technology, and Stanford University. “Nuclear and Renewable Energy Synergies Workshop: Report of Proceedings” http://www.nrel.gov/docs/fy12osti/52256.pdf)

In practice, such systems face several practical institutional/jurisdictional, technical, and political hurdles to implementation. Regulatory agencies for nuclear and renewable energies are separate, and combinations of the two are untested waters. Stovepipe issues extend beyond the regulatory framework, too. Because they defy easy categorization and thus ownership by single entities, hybrid systems would likely have difficulties with financing and risk assessment and management. Considering these challenges, the group felt that one of the primary enablers has to be leadership with a common desire to find solutions, strong roles and responsibilities, and the ability to overcome jurisdictional obstacles. Appropriate roles for government, industry, and national laboratories need to be defined and perspectives from all energy system stakeholders, from vendors to chemical plant operators, need to be incorporated. Other challenges are of a more technical nature. Hybrid systems are forging new ground in terms of operational integration, and appropriate interface technologies may not yet exist. Politically, *nuclear power in any form typically faces strong opposition*. Together, these hurdles create another one: cost. Working through the legal, technical, and political issues will require undetermined time and expense which, at least for the trail blazer, could place hybrid systems beyond the point of economic feasibility.

#### Nuclear power is a political deadweight---drains capital

Levine 12 (Greg, “Obama Drops Nuclear Energy from Convention Speech” http://my.firedoglake.com/gregglevine/2012/09/07/obama-drops-nuclear-energy-from-convention-speech/)

President Obama no longer promises to “safely harness nuclear power”–that likely would have sounded like a cruel joke in a world now contaminated by the ongoing Fukushima disaster–but beyond that, he does not promise anything about nuclear power at all. There was no platitude, no carefully crafted signal to the industry that has subsidized much of Obama’s political career, no mention of nuclear power whatsoever. That is not to say that the entire 2012 Democratic National Convention was a nuclear-free zone. A few hours before the president took the stage at the Time Warner Cable Arena, James Rogers, co-chair of the Charlotte host committee, and oh, by the way, CEO of Duke Energy, stepped to the lectern and endorsed Obama’s “all of the above” energy “strategy” (they keep using that word; I do not think it means what they think it means): We need to work even harder toward a future of affordable, reliable and cleaner energy. That means we need to invest heavily in new zero-emission power sources, like new nuclear, wind and solar projects, as well as new technologies, like electric vehicles. Well, if you are looking for a future of affordable, reliable and cleaner energy, you need look no further than nu–wait, what? If you are looking for those three features in an energy future, it is hard to imagine a worse option than the unsustainably expensive, chronically unreliable and dangerously dirty nuclear power plant. And, as has been discussed here many times, nuclear is not a zero-emission source, either. The massive carbon footprint of the nuclear fuel lifecycle rivals coal, and that doesn’t even consider the radioactive isotopes that facilities emit, even when they are not encountering one of their many “unusual events.” But the CEO of the Charlotte-based energy giant probably has his eyes on a different prize. Rogers, who has been dogged by questions about a power grab after Duke’s merger with Progress Energy and his lackluster performance as fundraiser-in-chief for the DNC, sits atop a company that operates seven US nuclear power plants, and is partners in a plan to build two new AP1000 reactors in Cherokee County, South Carolina. That last project, which is under active review by the Nuclear Regulatory Commission, awaiting a combined construction and operating license, is one of a small handful of proposed new nuclear facilities currently scrambling for financing. The South Carolina plant, along with a pair of reactors in Georgia, two slated for a different site in South Carolina, and possibly one more in Tennessee, represent what industry lobbyists like to call the “nuclear renaissance.” But completion of any of the above is nowhere close to guaranteed, and even if some of these reactors are eventually built, none will be able to generate even one kilowatt of commercial power until years after President Obama completes his sought-after second term. Which, if you really care about America’s energy future, is, of course, all for the better. As even James Rogers noted in his speech (and he gets props for this): [W]e cannot lose sight of energy efficiency. Because the cleanest, most efficient power plant is the one we never have to build. That Duke’s CEO thought to highlight efficiency is interesting. That President Obama, with his well-documented ties to the nuclear industry, chose not to even mention nuclear power is important. In the wake of Fukushima, where hundreds of thousands of Japanese have been displaced, where tens of thousands are showing elevated radiation exposure, and where thousands of children have thyroid abnormalities, no one can be cavalier about promising a safe harnessing of the atom. And in a world where radioisotopes from the breached reactors continue to turn up in fish and farm products, not only across Japan, but across the northern hemisphere, no one can pretend this is someone else’s problem. Obama and his campaign advisors know all this and more. They know that most industrialized democracies have chosen to shift away from nuclear since the start of the Japanese crisis. They know that populations that have been polled on the matter want to see nuclear power phased out. And they know that in a time of deficit hysteria, nuclear power plants are an economic sinkhole. And so, on a night when the president was promised one of the largest audiences of his entire campaign, he and his team decided that 2012 was not a year to throw a bone to Obama’s nuclear backers. Obama, a consummate politician, made the decision that for his second shot at casting for the future, nuclear power is political deadweight.

Energy push requires massive political capital---Obama doesn’t have time and energy to get energy and immigration reform

Davenport-energy correspondent for National Journal-12/6/12

How Obama and Congress Could Find Common Ground on Energy

<http://www.nationaljournal.com/magazine/how-obama-and-congress-could-find-common-ground-on-energy-20121206>

AGAINST THE CLOCK One big obstacle is time. A second-term president has about two years to push through major legislation before the next presidential campaign begins. In addition, two huge issues are already on the docket: immigration and tax reform. A sweeping overhaul of the nation’s tax code, which could easily absorb Congress through 2014, offers the first opportunity for major energy reform. Some lawmakers will probably insert a carbon-tax swap proposal in a broader tax-reform package, although for now the carbon tax seems unlikely to succeed. Democrats will also try to end tax breaks for the oil industry while extending those for renewable energy. But if the tax-reform debate ends without comprehensive new energy provisions, it may be too late to enact an energy overhaul. “If President Obama has victories on immigration and the deficit, that’s two potentially momentous victories for the president in a second term, where victories are not typical,” says historian Alfred Zacher, author of Trial and Triumph: Presidential Power in the Second Term. “It’s difficult to believe he’d win three.” Still, Zacher says, “because of his desire for a legacy, and the fact that he won’t need to worry about his base or reelection, he could come up with some unexpected environmental solutions. He’ll have to be a very capable politician, but if he can pull it off, he’ll be revered.” Ultimately, as Dorgan puts it, “there needs to be a will to do it, and it needs to come from the president and the leaders of Congress. If there’s not a will on the part of the president and the leaders of the House and Senate, it won’t happen. He needs to make it a priority.” If President Obama wants a legacy on energy, he’ll have to bring to the issue the same passion that candidate Obama once did.

### 1NR A2: PC Not Key

#### Also- studies prove the theory of political capital

Eshbaugh-Soha, M. (2008). Policy Priorities and Presidential Success in Congress. Conference Papers -- American Political Science Association, 1-26. Retrieved from Political Science Complete database.

Presidential-congressional relations are a central topic in the scientific study of politics. The literature is clear that a handful of variables strongly influence the likelihood of presidential success on legislation. Of these variables, party control of Congress is most important (Bond and Fleisher 1990), in that conditions of unified government increase, while conditions of divided government decrease presidential success, all else equal. The president’s approval ratings (Edwards 1989) and a favorable honeymoon (Dominguez 2005) period may also increase presidential success on legislation. In addition, presidential speeches that reference policies or roll-call votes tend to increase the president’s legislative success rate (Barrett 2004; Canes-Wrone 2001; Eshbaugh-Soha 2006). In their landmark examination of presidential success in Congress, Bond and Fleisher (1990, 230) identify yet another condition that may facilitate presidential success on legislation when they write that “the president’s greatest influence over policy comes from the agenda he pursues and the way it is packaged.” Moreover, the policies that the president prioritizes have “a major impact on the president’s relationship with Congress.” Taken together, these assertions strongly suggest that the policy content of the president’s legislative agenda—what policies the president prioritizes before Congress—should be a primary determinant of presidential success in Congress.

#### Bargaining chips are limited – plan directly trades off

Bernstein, 8/20/11

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Moreover, the positions of the president and most everyone else are, to look at it one way, sort of opposites. The president has potential influence over an astonishing number of things -- not only every single policy of the U.S. government, but policy by state and local governments, foreign governments, and actions of private citizens and groups. Most other political actors have influence over a very narrow range of stuff. What that means is that while the president's overall influence is certainly far greater than that of a House subcommittee chair or a midlevel civil servant in some agency, his influence over any specific policy may well not be greater than that of such a no-name nobody. A lot of good presidential skills have to do with figuring out how to leverage that overall influence into victories in specific battles, and if we look at presidential history, there are lots of records of successes and failures. In other words, it's hard. It involves difficult choices -- not (primarily) policy choices, but choices in which policies to fight for and which not to, and when and where and how to use the various bargaining chips that are available.

#### And- controversy aversion link—

#### Empirics prove – it’s not just question of capital - forcing votes on highly a controversial item means they won't be willing to on others - accesses structural factors and anticipated voter reaction warrants

Katherine Ling and Katie Howell, E&E reporters, 11-2-2010 Katherine Ling and Katie Howell, E&E reporters

After Obama was inaugurated as president in 2009, House Democrats unleashed a formidable agenda consisting of a two-month blitz to pass a $787 billion stimulus bill, which passed in February 2009; four months of pushing the cap-and-trade climate bill, which passed in June 2009; and, finally, an eight-month slog to pass a financial regulation reform bill in December 2009 and a health care reform bill in February 2010. But only the stimulus, health care reform and financial regulation bills made it through the "wet cement" that is the Senate, as Sen. Byron Dorgan (D-N.D.) has described it. After months of talks, Senate negotiations on climate came to a standstill this summer as partisan bickering kept the upper chamber from passing even the smallest of energy bills. Many lawmakers have criticized House leadership for forcing them to take a hard vote on a cap-and-trade bill without knowing whether Senate Democrats would also be able to take up and pass the bill. "I frankly don't think the House gave it that much thought. I think they acted on what they thought was an important initiative at a time when the perception was that the new president and the Democrats in Congress had a lot of momentum," said Leon Billings, a retired lobbyist and former Democratic Senate staffer who helped write the Clean Air Act in 1970. "It was only later that the leadership in the House began to realize ... that the Senate was going to become a cemetery rather than a maternity ward," Billings added. "It took awhile, way too long, for the Democrats in the House, Senate and White House to realize the magnitude of the assault that was going to be launched by the radical right and even longer to realize that it was going to take a real toll on the country." Frost also blasted Democrats' costly political oversight, saying the cap-and-trade vote was "much harder" than health care.