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#### A. Electricity prices are declining

**Burtraw 8/21/12** (one of the nation’s foremost experts on environmental regulation in the electricity sector. “Falling Emissions and Falling Prices: Expectations for the Domestic Natural Gas Boom” http://common-resources.org/2012/falling-emissions-and-falling-prices-expectations-for-the-domestic-natural-gas-boom/)

Moreover, the boom in domestic natural gas production could have even more immediate affects for U.S. electricity consumers. The increased supply of gas is expected to lower natural gas prices and retail electricity prices over the next 20 years, according to a [new RFF Issue Brief](http://www.rff.org/Publications/Pages/PublicationDetails.aspx?PublicationID=22019). These price decreases are expected to be even larger if demand for electricity continues on a slow-growth trajectory brought on by the economic downturn and the increased use of energy efficiency.For example, RFF analysis found that delivered natural gas prices would have been almost 35% higher in 2020 if natural gas supply projections had matched the lower estimates released by the U.S. Energy Information Administration (EIA) in 2009. Instead, with an increased gas supply, consumers can expect to pay $4.9 per MMBtu for delivered natural gas in 2020 instead of $6.6 per MMBtu. These trends are even more exaggerated if demand for electricity were to increase to levels projected by the EIA just three years ago, in 2009.This decrease in natural gas prices is expected to translate into a decrease in retail electricity prices for most electricity customers in most years out to 2020. Compared to the world with the lower gas supply projections, average national electricity prices are expected to be almost 6% lower, falling from 9.25 cents to 8.75 cents per kilowatt-hour in 2020. Residential, commercial, and industrial customers are all expected to see a price decrease, with the largest price changes occurring in parts of the country that have competitive electricity markets. All of these prices decreases translate into real savings for most electricity customers. The savings are largest for commercial customers, who stand to save $33.9 Billion (real $2009) under the new gas supply projections in 2020. Residential customers also stand to save big, with estimates of $25.8 Billion (real $2009) in savings projected for 2020.

#### New nuclear reactors drive up electricity prices

Cooper 9 (Mark, SENIOR FELLOW FOR ECONOMIC ANALYSIS INSTITUTE FOR ENERGY AND THE ENVIRONMENT¶ VERMONT LAW SCHOOL, "THE ECONOMICS OF NUCLEAR REACTORS: RENAISSANCE OR RELAPSE?," http://www.vermontlaw.edu/Documents/Cooper%20Report%20on%20Nuclear%20Economics%20FINAL%5B1%5D.pdf)

Within the past year, estimates of the cost of nuclear power from a new generation of ¶ reactors have ranged from a low of 8.4 cents per kilowatt hour (kWh) to a high of 30 cents. This ¶ paper tackles the debate over the cost of building new nuclear reactors, with the key findings as ¶ follows: ¶ • The initial cost projections put out early in today’s so-called “nuclear renaissance” were about ¶ one-third of what one would have expected, based on the nuclear reactors completed in the ¶ 1990s. ¶ • The most recent cost projections for new nuclear reactors are, on average, over four times as ¶ high as the initial “nuclear renaissance” projections. ¶ • There are numerous options available to meet the need for electricity in a carbon-constrained ¶ environment that are superior to building nuclear reactors. Indeed, nuclear reactors are the worst ¶ option from the point of view of the consumer and society. ¶ • The low carbon sources that are less costly than nuclear include efficiency, cogeneration, ¶ biomass, geothermal, wind, solar thermal and natural gas. Solar photovoltaics that are presently ¶ more costly than nuclear reactors are projected to decline dramatically in price in the next ¶ decade. Fossil fuels with carbon capture and storage, which are not presently available, are ¶ projected to be somewhat more costly than nuclear reactors. ¶ • Numerous studies by Wall Street and independent energy analysts estimate efficiency and ¶ renewable costs at an average of 6 cents per kilowatt hour, while the cost of electricity from ¶ nuclear reactors is estimated in the range of 12 to 20 cents per kWh. ¶ • The additional cost of building 100 new nuclear reactors, instead of pursuing a least cost ¶ efficiency-renewable strategy, would be in the range of $1.9-$4.4 trillion over the life the ¶ reactors. ¶ Whether the burden falls on ratepayers (in electricity bills) or taxpayers (in large subsidies), ¶ incurring excess costs of that magnitude would be a substantial burden on the national economy and ¶ add immensely to the cost of electricity and the cost of reducing carbon emissions.

#### Low electricity prices spurs manufacturing "reshoring" and sparks US economic growth via consumer spending and investment

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

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

#### Econ decline risks extinction

Auslin 9 (Michael, Resident Scholar – American Enterprise Institute, and Desmond Lachman – Resident Fellow – American Enterprise Institute, “The Global Economy Unravels”, Forbes, 3-6, http://www.aei.org/article/100187)

What do these trends mean in the short and medium term? The Great Depression showed how social and global chaos followed hard on economic collapse. The mere fact that parliaments across the globe, from America to Japan, are unable to make responsible, economically sound recovery plans suggests that they do not know what to do and are simply hoping for the least disruption. Equally worrisome is the adoption of more statist economic programs around the globe, and the concurrent decline of trust in free-market systems. The threat of instability is a pressing concern. China, until last year the world's fastest growing economy, just reported that 20 million migrant laborers lost their jobs. Even in the flush times of recent years, China faced upward of 70,000 labor uprisings a year. A sustained downturn poses grave and possibly immediate threats to Chinese internal stability. The regime in Beijing may be faced with a choice of repressing its own people or diverting their energies outward, leading to conflict with China's neighbors. Russia, an oil state completely dependent on energy sales, has had to put down riots in its Far East as well as in downtown Moscow. Vladimir Putin's rule has been predicated on squeezing civil liberties while providing economic largesse. If that devil's bargain falls apart, then wide-scale repression inside Russia, along with a continuing threatening posture toward Russia's neighbors, is likely. Even apparently stable societies face increasing risk and the threat of internal or possibly external conflict. As Japan's exports have plummeted by nearly 50%, one-third of the country's prefectures have passed emergency economic stabilization plans. Hundreds of thousands of temporary employees hired during the first part of this decade are being laid off. Spain's unemployment rate is expected to climb to nearly 20% by the end of 2010; Spanish unions are already protesting the lack of jobs, and the specter of violence, as occurred in the 1980s, is haunting the country. Meanwhile, in Greece, workers have already taken to the streets. Europe as a whole will face dangerously increasing tensions between native citizens and immigrants, largely from poorer Muslim nations, who have increased the labor pool in the past several decades. Spain has absorbed five million immigrants since 1999, while nearly 9% of Germany's residents have foreign citizenship, including almost 2 million Turks. The xenophobic labor strikes in the U.K. do not bode well for the rest of Europe. A prolonged global downturn, let alone a collapse, would dramatically raise tensions inside these countries. Couple that with possible protectionist legislation in the United States, unresolved ethnic and territorial disputes in all regions of the globe and a loss of confidence that world leaders actually know what they are doing. The result may be a series of small explosions that coalesce into a big bang.

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#### Obama will win the election --- Intrade and Silver projects an upward trend.

**Witt**, **10/26**/2012 (Ryan, Intrade and Nate Silver significantly upgrade Obama’s odds for victory, Examiner, p. <http://www.examiner.com/article/intrade-and-nate-silver-significantly-upgrade-obama-s-odds-for-victory>)

As Election Day draws near millions of Americans are looking up the latest polls to see whether Mitt Romney or President Obama will win in November. In addition to the polls, two other projections have gained significant notoriety over the last year. One is a market called Intrade, and the other is projective model developed by statistician Nate Silver of The New York Times. Both of those predictive measurements have significantly upgraded President Obama’s odds for victory over the last 72 hours, likely in response to Obama’s improving poll numbers. For those unfamiliar with Intrade, it is a trading market in which people to make predictions by buying stock in a particular event. For instance, someone can buy “stock” in the prediction that President Obama will win re-election vote count on November 6. Currently that “stock” for President Obama winning is selling a $6.29 a share. If the trader is right and the event happens they can sell each shares for $10. If the trader is wrong, and the event does not happen, their shares go down to $0. Shares can also be sold before the event happens for a profit or loss. With the “Obama re-election stock” currently selling at $6.29, traders are essentially betting that Obama has a 62.9% chance of winning. That number is a significant upgrade from Obama from Wednesday morning, when Obama was trading at just $5.60. What this essentially means is that people who have actual money riding on the outcome increased Obama’s odds for victory by 10 percent. The second projection is much more complicated. Nate Silver has developed fame for a website called FiveThirtyEight.com which incorporates all the polling data, and more, in order to project elections. Silver’s model is much more complex than a simple average of the polls. Silver takes into account the demographics of each state, the direction of the economy, and he also weighs each pollster differently based on their past performance. According to Silver’s November 6 forecast, President Obama currently has a 73.1% chance of winning the election. Over the last 72 hours Silver has increased Obama’s odds by over 5%. Two weeks ago, on October 12, Silver had President Obama’s odds down all the way to 61.1%. So while many in the media are continuing with the narrative that Mitt Romney has the momentum, Obama is trending up with the people who are putting their wallets where the mouth is, and with the statistician who has made a name for himself in projecting elections.

#### Nuclear power incentives are massively unpopular --- the public does not want to foot the cost.

**Sheppard**, 3/23/**2011** (Kate – staff reporter at Mother Jones’ Washington bureau, Public Opinion on Nuclear Goes Critical, Mother Jones, p. <http://www.motherjones.com/blue-marble/2011/03/nuclear-power-public-opinion-poll>)

It's probably not too surprising, given the constant attention it's been getting in the press recently, but the Japanese nuclear crisis has turned more Americans off to nuclear power. Two new polls released Tuesday found that 58 percent of those polled said they are now less supportive of expanding nuclear power here in the US. The poll, conducted by ORC International on behalf of the Civil Society Institute (CSI), found that two-thirds of respondents said they would protest the construction of a new nuclear reactor within 50 miles of their homes. Fifty-three percent said they support "a moratorium on new nuclear reactor construction in the United States" and would prefer energy efficiency and renewables. (It's worth noting, though, that among those that already supported of nuclear power, 24 percent now said they are actually more supportive now.) The Pew Research Center for the People and the Press also released a new poll on Tuesday that found nuclear support had taken a nose-dive. As for funding these new nuclear plants, 73 percent in the CSI poll said they don't think taxpayers should "take on the risk for the construction of new nuclear power reactors" with federal loan guarantees. The Obama administration has made expanding the loan guarantees a major part of its energy agenda, but there have been plenty of concerns about forcing taxpayers to foot the bill if something goes wrong. When Gallup last polled Americans on nuclear power in 2009, it found support at a new high—59 percent of the public favored it. It had been years since a nuclear accident was all over the news. But as I noted last week, the last major nuclear power accident in the US was enough to turn Americans off from it for a generation. I ventured then that this latest situation in Japan may have a similar effect. Given that the latest polls were conducted in the aftermath of a nuclear disaster, it's unclear what their conclusions mean for the future of nuclear power. What will be interesting is the longer-term influence on public opinion once Japan's nuclear emergency fades from the news.

#### Obama reelection maintains the US/Russian reset --- Romney will collapse relations

**Weir**, 3/27/**2012** (Fred, Obama asks Russia to cut him slack until reelection, Minnesota Post, p. <http://www.minnpost.com/christian-science-monitor/2012/03/obama-asks-russia-cut-him-slack-until-reelection>)

Russian experts say there's little doubt the Kremlin would like to see Obama re-elected. Official Moscow has been pleased by Obama's policy of "resetting" relations between Russia and the US, which resulted in the new START treaty and other cooperation breakthroughs after years of diplomatic chill while George W. Bush was president. The Russian media often covers Obama's lineup of Republican presidential challengers in tones of horror, and there seems to be a consensus among Russian pundits that a Republican president would put a quick end to the Obama-era thaw in relations. "The Republicans are active critics of Russia, and they are extremely negative toward Putin and his return to the presidency," says Dmitry Babich, a political columnist with the official RIA-Novosti news agency. "Democrats are perceived as more easygoing, more positive toward Russia and Putin." Speaking on the record in Seoul, Mr. Medvedev said the years since Obama came to power "were the best three years in the past decade of Russia-US relations.… I hope this mode of relations will maintain between the Russian Federation and the United States and between the leaders." During Putin's own election campaign, which produced a troubled victory earlier this month, he played heavily on anti-Western themes, including what he described as the US drive to attain "absolute invulnerability" at the expense of everyone else. But many Russian experts say that was mostly election rhetoric, and that in office Putin will seek greater cooperation and normal relations with the West. "Russian society is more anti-American than its leaders are," says Pavel Zolotaryov, deputy director of the official Institute of USA-Canada Studies in Moscow. "Leaders have to take popular moods into account. But it's an objective fact that the US and Russia have more points in common than they have serious differences. If Obama wins the election, it seems likely the reset will continue."

#### Extinction

Allison & Blackwill 11

[Graham, director of the Belfer Center for Science and International Affairs at Harvard’s Kennedy School, former assistant secretary of defense in the Clinton administration, Robert D., Henry A. Kissinger senior fellow for U.S. foreign policy -- Council on Foreign Relations, served as U.S. ambassador to India and as deputy national security adviser for strategic planning in the Bush administration, both co-chairmen of the Task Force on Russia and U.S. National Interests, co-sponsored by the Belfer Center and the Center for the National Interest, 10-30-11 Politico, “10 reasons why Russia still matters,” http://dyn.politico.com/printstory.cfm?uuid=161EF282-72F9-4D48-8B9C-C5B3396CA0E6]

That central point is that Russia matters a great deal to a U.S. government seeking to defend and advance its national interests. Prime Minister Vladimir Putin’s decision to return next year as president makes it all the more critical for Washington to manage its relationship with Russia through coherent, realistic policies. No one denies that Russia is a dangerous, difficult, often disappointing state to do business with. We should not overlook its many human rights and legal failures. Nonetheless, Russia is a player whose choices affect our vital interests in nuclear security and energy. It is key to supplying 100,000 U.S. troops fighting in Afghanistan and preventing Iran from acquiring nuclear weapons. Ten realities require U.S. policymakers to advance our nation’s interests by engaging and working with Moscow. First, Russia remains the only nation that can erase the United States from the map in 30 minutes. As every president since John F. Kennedy has recognized, Russia’s cooperation is critical to averting nuclear war. Second, Russia is our most consequential partner in preventing nuclear terrorism. Through a combination of more than $11 billion in U.S. aid, provided through the Nunn-Lugar Cooperative Threat Reduction program, and impressive Russian professionalism, two decades after the collapse of the “evil empire,” not one nuclear weapon has been found loose. Third, Russia plays an essential role in preventing the proliferation of nuclear weapons and missile-delivery systems. As Washington seeks to stop Iran’s drive toward nuclear weapons, Russian choices to sell or withhold sensitive technologies are the difference between failure and the possibility of success. Fourth, Russian support in sharing intelligence and cooperating in operations remains essential to the U.S. war to destroy Al Qaeda and combat other transnational terrorist groups. Fifth, Russia provides a vital supply line to 100,000 U.S. troops fighting in Afghanistan. As U.S. relations with Pakistan have deteriorated, the Russian lifeline has grown ever more important and now accounts for half all daily deliveries. Sixth, Russia is the world’s largest oil producer and second largest gas producer. Over the past decade, Russia has added more oil and gas exports to world energy markets than any other nation. Most major energy transport routes from Eurasia start in Russia or cross its nine time zones. As citizens of a country that imports two of every three of the 20 million barrels of oil that fuel U.S. cars daily, Americans feel Russia’s impact at our gas pumps. Seventh, Moscow is an important player in today’s international system. It is no accident that Russia is one of the five veto-wielding, permanent members of the U.N. Security Council, as well as a member of the G-8 and G-20. A Moscow more closely aligned with U.S. goals would be significant in the balance of power to shape an environment in which China can emerge as a global power without overturning the existing order. Eighth, Russia is the largest country on Earth by land area, abutting China on the East, Poland in the West and the United States across the Arctic. This territory provides transit corridors for supplies to global markets whose stability is vital to the U.S. economy. Ninth, Russia’s brainpower is reflected in the fact that it has won more Nobel Prizes for science than all of Asia, places first in most math competitions and dominates the world chess masters list. The only way U.S. astronauts can now travel to and from the International Space Station is to hitch a ride on Russian rockets. The co-founder of the most advanced digital company in the world, Google, is Russian-born Sergei Brin. Tenth, Russia’s potential as a spoiler is difficult to exaggerate. Consider what a Russian president intent on frustrating U.S. international objectives could do — from stopping the supply flow to Afghanistan to selling S-300 air defense missiles to Tehran to joining China in preventing U.N. Security Council resolutions. So next time you hear a policymaker dismissing Russia with rhetoric about “who cares?” ask them to identify nations that matter more to U.S. success, or failure, in advancing our national interests.

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#### The nuclear arsenal will be modernized now – but risks cuts from the defense budget

Washington Post, 9/15/12 (Dana Priest, “Aging U.S. nuclear arsenal slated for costly and long-delayed modernization,” <http://www.washingtonpost.com/world/national-security/us-nuclear-arsenal-is-ready-for-overhaul/2012/09/15/428237de-f830-11e1-8253-3f495ae70650_story.html>)

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 postwar 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.

#### The aff causes defense budget tradeoffs

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

The idea that the administration is using DOD as a more politically palatable vehicle for renewable energy investments is now reverberating across Capitol Hill, even as Pentagon officials flatly deny the allegations.¶ At a budget hearing last week, Navy Secretary Ray Mabus, the department's most high-profile alternative energy advocate, took volley after volley from Republicans on the House Armed Services Committee. They said that his priorities were misplaced, argued that spending on clean energy was taking money out of more important missions and hinted at a link between the Pentagon's green efforts and the prominence of former Silicon Valley clean-tech investors within the Obama administration.¶ "You're not the secretary of the energy, you're the secretary of the Navy," said Rep. Randy Forbes (R-Va.), who leads the subcommittee with jurisdiction over military energy and environment issues.¶ Prime among the lawmakers' complaints was that the military is paying a higher price for some forms of alternative energy at a time when DOD proposes cutting weapons programs and reducing forces in order to meet budget mandates.

#### Nuclear modernization will be the first to be cut – it’s on the chopping block – that destroys deterrence

Trachtenberg, 11 – president and CEO of Shortwaver Consulting, LLC, former principal deputy assistant secretary of defense (international security policy), acting deputy assistant secretary of defense (forces policy), and head of the policy staff of the House Armed Services Committee (David J, 10/1. “Nuclear Fallback.” ,” [http://www.nationalreview.com/articles/279610/nuclear-fallback-david-j-trachtenberg#](http://www.nationalreview.com/articles/279610/nuclear-fallback-david-j-trachtenberg))

Political turmoil in the Middle East, Iran’s drive for nuclear weapons, and the buildup of China’s military are only a few of the worrisome trends that point to a prolonged period of global instability. Against this backdrop, the U.S. defense budget and the military capabilities it buys are being dramatically reduced in ways that will hinder our ability to shape or respond to these developments.¶ Over the next decade, defense spending will drop by anywhere from $450 billion to more than $1 trillion. The full extent of the cuts, and the national-security implications they foreshadow, are now in the hands of a congressional “supercommittee” charged with slashing overall federal spending. But cuts of this magnitude will translate into less military capability, a likely “dumbing down” of U.S. military strategy, a more problematic margin of military advantage over potential adversaries, and greater strategic risk. They are also likely to diminish America’s ability to advance U.S. policy objectives and secure a stable world order.¶ Not surprisingly, long-overdue investments in our aging and deteriorating nuclear capabilities and infrastructure — essential to maintaining a reliable and effective nuclear deterrent — are now on the chopping block as the military services seek to protect “usable” non-nuclear systems at the expense of “unusable” nuclear ones.¶ But the world remains a dangerous place, with nations and groups seeking nuclear weapons as a counter to U.S. military preponderance, a deterrent to U.S. action in regions vital to American national-security interests, a bargaining chip for political leverage, or a counter to regional threats. Nuclear weapons remain the great equalizer in world affairs, granting those that possess them greater influence over American policies and actions. Consequently, an effective and robust U.S. nuclear deterrent remains as important as ever.

#### Deterrence is vital to prevent WMD attacks and preserve global stability

Mark **Schneider**, July **2008**. Senior Analyst with the National Institute for Public Policy, Ph.D in history at the University of Southern California and JD from George Washington University, former senior officer in the DoD in positions relating to arms control and nuclear weapons policy. “The Future of the U.S. Nuclear Deterrent,” Comparative Strategy 27.4, Ebsco.

Today, the United States, the world's only superpower with global responsibilities, is the only nuclear weapons state that is seriously debating (admittedly largely inside the beltway) about whether the United States should retain a nuclear deterrent. By contrast, the British Labour Government has decided to retain and modernize its nuclear deterrent. In every other nuclear weapons state—Russia, China, France, India, Pakistan, and allegedly Israel—there is general acceptance of the need for a nuclear deterrent and its modernization. Amazingly, the United States is the only nuclear-armed nation that is not modernizing its nuclear deterrent. Distinguished former leaders such a George P. Shultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, despite the manifest failure of arms control to constrain the weapons of mass destruction (WMD) threat, call for “A world free of Nuclear Weapons” because “… the United States can address almost all of its military objectives by non-nuclear means.”1 This view ignores the monumental verification problems involved and the military implication of different types of WMD—chemical and biological (CBW) attack, including the advanced agents now available to potential enemies of the United States and our allies. A U.S. nuclear deterrent is necessary to address existing threats to the very survival of the U.S., its allies, and its armed forces if they are subject to an attack using WMD. As former Secretary of Defense Harold Brown and former Deputy Secretary of Defense John Deutch wrote in The Wall Street Journal, “However, the goal, even the aspirational goal, of eliminating all nuclear weapons is counterproductive. It will not advance substantive progress on nonproliferation; and it risks compromising the value that nuclear weapons continue to contribute, through deterrence, to U.S. security and international stability.”2 Why can't the United States deter WMD (nuclear, chemical, biological) attack with conventional weapons? The short answer is that conventional weapons can't deter a WMD attack because of their minuscule destructiveness compared with WMD, which are thousands to millions of times as lethal as conventional weapons. Existing WMD can kill millions to hundreds of millions of people in an hour, and there are national leaders who would use them against us if all they had to fear was a conventional response. The threat of nuclear electromagnetic pulse (EMP) attack, as assessed by a Congressional Commission in 2004, is so severe that one or at most a handful of EMP attacks could demolish industrial civilization in the United States.3 The view that conventional weapons can replace nuclear weapons in deterrence or warfighting against a state using WMD is not technically supportable. Precision-guided conventional weapons are fine substitutes for non-precision weapons, but they do not remotely possess the lethality of WMD warheads. Moreover, their effectiveness in some cases can be seriously degraded by counter-measures and they clearly are not effective against most hard and deeply buried facilities that are associated with WMD threats and national leadership protection. If deterrence of WMD attack fails, conventional weapons are unlikely to terminate adversary WMD attacks upon us and our allies or to deter escalation. Are there actual existing threats to the survival of the United States? The answer is unquestionably “yes.” Both Russia and China have the nuclear potential to destroy the United States (and our allies) and are modernizing their forces with the objective of targeting the United States.4 China is also increasing the number of its nuclear weapons.5 Russia is moving away from democracy, and China remains a Communist dictatorship. A number of hostile dictatorships—North Korea, Iran, and possibly Syria—have or are developing longer-range missiles, as well as chemical, biological, and nuclear weapons.6 They already have the ability to launch devastating WMD attacks against our allies and our forward deployed forces, and in time may acquire capabilities against the United States. Iran will probably have nuclear weapons within approximately 2 to 5 years.7 The United States already faces a chemical and biological weapons threat despite arms control prohibitions. Due to arms control, we do not have an in-kind deterrent. Both Iranian and Syria acquisition of nuclear weapons could be affected by sales from North Korea, which have been reported in the press.8

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#### Renewables are competitive now

**Tickell, 8/20**/12 – British journalist, author and campaigner on health and environment issues, and author of the Kyoto2 climate initiative (Oliver, “Does the world need nuclear power to solve the climate crisis?” <http://www.guardian.co.uk/environment/2012/aug/20/world-need-nuclear-power-climate-crisis>)

However, non-hydro renewables are growing very fast – up 15% in 2010. And within this figure just three power sources are responsible for most of the growth: wind power, solar PV and solar hot water. From 2005 to 2010, global solar hot water and wind power capacity both grew at 25% per year, while solar PV capacity grew at over 50% per year. If these growth rates were to be sustained for 35 years, wind capacity would rise 6,300-fold from 200 gigawatts (GW) in 2010 to about 1.25 million GW, solar hot water 6,300-fold from 185 GW to 1.15 million GW, and solar PV 40 million-fold from 40 GW to 1.6 billion GW. These figures are not predictions. Exponential growth will not continue for so long, as prime sites for wind turbines and solar panels get used up. Other technologies, such as concentrated solar power, will also become important. And there will be demand-side constraints: the projected 1.6 billion GW of solar PV capacity alone would produce over 3 billion billion kilowatt hours per year, equivalent to a primary energy burn of some 30 million Mtoe – over 1,000 times our projected world primary energy demand in 35 years. We would not even know what to do with so much energy. But while not predictive, the figures are highly indicative of the low-carbon energy choices the world should make. The one, nuclear power, is expensive and becoming more so. It will be a practical impossibility to increase its capacity to a scale big enough to make a real difference to global climate within a realistic time frame. Worse, if we were somehow to build our 11,000 nuclear reactors, we would face the certainty of repeated catastrophic accidents and the spread of nuclear weapons, not to mention unimaginable liabilities for decommissioning and long-term nuclear-waste management. We can fairly say that nuclear power is both repulsive and utterly wrong. The other choice, renewable power, already costs less than fossil fuels for many applications, thanks in large part to generous subsidies in Germany, Japan and other countries, which have had the effect of greatly reducing prices. Solar electricity is now cheaper than power from diesel generators in the tropics and subtropics – and so the rapid spread of solar power across China, India, Africa and Latin America is being driven not by subsidy but by the market. And it is getting cheaper all the time as increased demand, caused by its lower price, stimulates greater competition among manufacturers, technological advance, and even greater price falls, in a delightful virtuous circle. Moreover, renewable energy is free of catastrophic dangers and long- term liabilities. It is both romantic and right.

#### Expansion of nuclear power directly trades-off with investment in renewables

**Porritt et al, 12** – founder director of Forum for the Future Forum for the future, chairman of the UK Sustainable Development Commission and author of Capitalism as if the World Matters (Jonathon, 4/27, with Tom Burke, Tony Juniper, Charles Secrett. “Climate Change and Energy Security.” http://www.jonathonporritt.com/sites/default/files/users/BRIEFING%205%20-%20Climate\_and%20energy%20security\_27\_April%202012.pdf)

The costs of nuclear new build are extremely high. UK governments, both Labour and the Coalition Government, have made it clear that money for new nuclear must come from the private sector, and yet, despite promising not to, have then gone on to attract private sector investment, thus committing large amounts of public money not available for other energy supply or demand management options. The scale of both the financial and the political investment required are such that they will crowd out equivalent investment in renewables and energy efficiency. The cost of the new nuclear build that Coalition Governments hopes for is in the region of £50 billion. Since private investors money is to be channelled through energy utilities (either as equity borrowing or simple bank lending), it will come from the same funding pools that other types of energy generation investment would access; part of the opportunity cost of nuclear power is that it will inevitably draw investment away from alternatives. But it’s not just the scale of the investment needed that undermines other possibilities. The massive timescales for bringing nuclear power online are also important - once investment has begun in nuclear, the entirety of the investment must remain in nuclear or be lost. Renewables are much nimbler – if problems occur, the project can be scaled down and still provide some generated energy. Lastly, there is a substantial political opportunity cost. When governments throw their weight behind a particular course of action, they divert resources from all others. In the past decade, UK governments of both parties have established over three dozen taxpayer-funded quangos and agencies to support the nuclear industry. It is inevitable that the pronuclear perspective of these bodies will pervade the thinking of the Civil Service, and of politicians and business investors too. Speaking about Finland’s experience with the disastrous Olkiluoto reactor, Oras Tynkynnen, a former climate policy advisor to the Office of the Finnish Prime Minister, said: “We concentrated so much on nuclear that we lost sight of everything else ... And nuclear has failed to deliver. It has turned out to be a costly gamble for Finland, and for the planet”.

#### Renewables solve extinction

Wood 10 (Duncan, Director – Program in International Relations and Canadian Studies Program – Instituto Tecnológico Autónomo de México, “Environment, Development and Growth: U.S.-Mexico Cooperation in Renewable Energies,” Woodrow Wilson International Center for Scholars – Mexico Institute, May, http://www.wilsoncenter.org/topics/pubs/U.S.%20Mexico%20Cooperation%20in%20Renewable%20Energies.pdf)

It is by now common knowledge that the world is facing a climate change crisis caused by the effects of fossil fuel driven industrialization. A significant rise in global temperatures, combined with more severe weather conditions, more frequent floods and droughts, are bringing a paradigm shift to the way we think about our relationship with the planet. For the first time in over 150 years policy makers are thinking seriously about decreasing dependency on fossil fuels and looking for alternatives that may be more expensive in the short and medium terms, but ultimately more sustainable. 7 All of this has happened at the same time as two other, related phenomena. The first is that the global population is reaching new highs and by 2040‐50 will total over 9 billion people. Experts predict that 85% of the world’s population will be located in the developing world, which will mean a rapidly growing demand for goods and for energy. Both of these factors will result in a need to increase energy efficiency as well as find new sources of energy. What’s more, this massive jump in population will coincide not only with climate change but also with increasingly difficult conditions for hydrocarbons exploration and production. As most of the world’s “easy” oil has already been discovered, oil companies and nation states are turning to alternatives such a non‐conventional oil reserves (tar sands, complex fields) and reserves that in the past would have been considered unrecoverable, such as in very deep ocean waters. Furthermore, political conditions in many of the world’s oil rich regions are uncertain, unstable and often unfriendly to private oil companies and to the countries of the West. Climate change and natural disasters The urgency of finding alternatives to fossil fuels has been confirmed in recent years by mounting scientific evidence that we are undergoing a noticeable **anthropogenic shift** in the world’s weather and temperature. Not only are a range of indicators showing that the planet is warming, but the retreat of the polar ice caps, the melting of glaciers, and most importantly in the short term extreme weather conditions and increased incidence of natural disasters have highlighted the consequences of maintaining the status quo in our patterns of energy consumption and industrial development. It is estimated that we have experienced a 1 degree Celsius rise in global temperatures over the past 100 years and that by the end of the current century global temperatures may have risen by as much 7 or 8 degrees. Even with the reduction in greenhouse gas emissions that is contemplated by the most ambitious mitigation strategies, global temperatures may rise by as much as 6%. This would have a dramatic and disastrous impact on both developed and developing nations and will **threaten the existence of both humans and animal and plant species**. Though the connection between man‐made greenhouse gases and global warming was denied for many years by industry and governments alike, it has now been accepted that something must be done to reduce the amount of greenhouse gases released into the atmosphere. Given that 86% of all global energy comes from fossil fuels, and that these fossil fuels produce 27,000,000,000 tons of CO2 emissions annually, finding alternative sources of energy is a crucial component of climate change mitigation strategies.

### 1NC

#### Text: The Department of Defense should enter into binding consultation with local communities surrounding relevant military bases over whether to initiate power-purchase agreements of Small Modular Reactors in the United States. The Department of Defense should implement the result of the binding consultation. We’ll clarify.

#### It competes –

#### First – it tests “resolved” which means “to make a firm decision”, and “should” which is “used to imply obligation or duty”

[American Heritage Dictionary at dictionary.com]

#### Counterplans that test the resolution are key to predictable ground

#### Second – we have a solvency advocate – DoD nuclear power plants must include genuine consultation – that’s key to integration and overall base success

Parthemore and Rogers 10 (Christine and Will, Bacevich Fellow – CNAS, “Nuclear Reactors on Military Bases May Be Risky,” Center for a New American Security, 5-20, http://www.cnas.org/node/4502)

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.

#### The net-benefit is community-military relations –

#### Current levels of negotiation are controlled by military leadership – the CP revives that by creating an open and cooperation relationship

Boccuti, Faul, and Gray 12 (Amanda, analyst for Marstel-Day, LLC, providing analysis and GIS support for U.S. Marine Corps projects, Lauren, analyst for Marstel-Day, LLC, specializing in Strategic Communications, and Lauren, researcher at 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, “Establishing Creative Strategies for Effective Engagement between Military Installations & Communities,” Engaging Cities, 5-12, 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.

#### Locals will say yes. Absent consultation, civilian populations will fear military encroachment – that destroys military readiness and causes base closing

Savage 10 (Melissa, tracks military base issues for NCSL, “Lawmakers are looking for ways to resolve land-use conflicts between civilian communities and military bases,” National Conference of State Legislatures, March, http://www.ncsl.org/issues-research/env-res/making-peace-article.aspx)

Senator Leticia Van de Putte, who represents the district that is home to Fort Sam Houston—another military base near San Antonio—has seen the consequences of residential development near military bases. It’s in her backyard. But she also knows the encroachment issue isn’t confined to San Antonio. It’s a problem for bases across the country, from the Marine’s Camp Pendleton in southern California to the Army’s Fort A.P. Hill in northern Virginia. “For legislators with installations in their district, it’s critical that they stay aware of what’s happening on the bases, in the community and how state legislation can play a role in helping strike a balance **between the community’s needs and ensuring the military base can meet its mission**,” Van de Putte says. “The good news is that, while encroachment is pretty common, states, military bases and local communities are working together. Partnerships among states, cities and military bases are becoming the premier strategy to accomplish common goals.” Role of Military Bases During the last several years of base closures, communities have fought to keep their bases open for many reasons, but mostly because of the huge economic benefits military bases can bring to local communities and states. They generate civilian jobs and pour millions of dollars each year into the local economy. The loss of a base can be devastating to a community. In San Antonio, the U.S. Department of Defense is one of the largest employers, providing jobs to more than 68,000 people, a third of them civilians. According to the Department of Defense, the direct and indirect economic effect of the military in San Antonio was more than $13.3 billion in 2006. As development inches closer to installations, **limiting the ability to conduct effective military training**, the Department of Defense might be left with no other choice than to close bases. Maryland Delegate Sally Jameson knows just what military bases can mean to a community. “For those of us with bases in our districts, we relish the jobs and dollars that spin into our local economies,” she says. “In some areas, the loss of a base could mean the destruction of the local community. “The next step is to realize the significant problems bases can face when dealing with encroachment. It can stand in the way of our bases meeting their No. 1 priority—troop readiness. Staying focused on land issues and **keeping the lines of communication open with base leadership is so important**.” Years ago, when the Department of Defense located many of its current military installations, it looked for land in the middle of nowhere. Having space to train away from cities limits the impact of light pollution on flight paths and keeps citizens on the other side of the fence safe during live fire training exercises. Over the last few decades, as cities have grown closer to the installations, the impact on the military sometimes has been severe. While base commanding officers will tell you they want to be good neighbors, their primary mission is to train soldiers to fight.

#### Readiness collapse causes war – turns the heg advantage

Spencer 2K (Jack, Policy Analyst – Heritage Foundation, The Facts About Military Readiness, 9-15, <http://www.heritage.org/Research/MissileDefense/BG1394.cfm>)

The evidence indicates that the U.S. armed forces are not ready to support America's national security requirements. Moreover, regarding the broader capability to defeat groups of enemies, military readiness has been declining. The National Security Strategy, the U.S. official statement of national security objectives, 3 concludes that the United States "must have the capability to deter and, if deterrence fails, defeat large-scale, cross-border aggression in two distant theaters in overlapping time frames." 4 According to some of the military's highest-ranking officials, however, the United States cannot achieve this goal. Commandant of the Marine Corps General James Jones, former Chief of Naval Operations Admiral Jay Johnson, and Air Force Chief of Staff General Michael Ryan have all expressed serious concerns about their respective services' ability to carry out a two major theater war strategy. 5 Recently retired Generals Anthony Zinni of the U.S. Marine Corps and George Joulwan of the U.S. Army have even questioned America's ability to conduct one major theater war the size of the 1991 Gulf War. 6 Military readiness is vital because declines in America's military readiness signal to the rest of the world that the United States is not prepared to defend its interests. Therefore, potentially hostile nations will be more likely to lash out against American allies and interests, inevitably leading to U.S. involvement in combat. A high state of military readiness is more likely to deter potentially hostile nations from acting aggressively in regions of vital national interest, thereby **preserving peace**.

#### Second – the perm destroys genuine consultation – that causes the US to get kicked out of Guam

Natividad 10 (Lisa Linda, Assistant Professor with the Division of Social Work at the University of Guam and President of the Guahan Coalition for Peace and Justice, “The Explosive Growth of U.S. Military Power on Guam Confronts People Power: Experience of an island people under Spanish, Japanese and American colonial rule,” Asia-Pacific Journal, 49(3), 12-6, http://www.japanfocus.org/-Victoria\_Lola\_Leon-Guerrero/3454)

While the Department of Defense had been orchestrating the build-up for years, they **did little to share their plans with the local community, or include local leaders in any of the decisions that were made**. Consistent with the National Environmental Policy Act (NEPA), the Department of Defense embarked on the environmental impact assessment process by hiring contractors to assess the potential impact of the proposed build-up. Guahan government leaders received periodic visits from contractors between 2006 and 2009. In addition, meetings were held in 2007 in village community centers of the island to obtain feedback and for local people to voice concerns. The meetings did not, however, allow for the verbal expression of concerns; rather, attendees were told to write their testimonies and place them in trashcan-like receptacles for submission. The result was to fragment criticisms and to deny local communities the opportunity to ascertain and convey community, as opposed to individual sentiment. The Joint Guam Program Office (JGPO) Director, General David Bice, reported that over 900 written comments were received in this process. Articulated concerns included the following: social, economic, and cultural factors; international safety; law enforcement; transportation and infrastructure issues; marine resources/ecology; air and water quality; and overtaxing limited resources and services. Other events related to the proposed Military build-up followed. In 2008, a Congressional hearing convened by Congresswoman Donna Christianson was held on the island. In the following year, the Joint Guam Program Office (JGPO) held a number of island-wide public meetings, providing another opportunity for community members to articulate their concerns in the form of written comments. In November 2009 a Draft Environmental Impact Statement (DEIS) was released. The Guahan Coalition for Peace and Justice coordinated a protest on the day of the release of the DEIS themed, “Bogus EIS.” The protest highlighted the lack of genuine consultation with the local population in the preparation of the document. For the first time, the DEIS - in roughly 11,000 pages - revealed the Department of Defense’s plan for the Military build-up to the people of the island. While island leaders had been pleading to be part of the planning process - particularly the development of the Civilian-Military Task Force - it was only with the release of the DEIS that the specific contours of the DOD plan became transparent. The document laid out alternatives for each of its recommendations, as well as indicated its “preferred” alternatives. The public was given a mere 90 days to read 11,000 pages spread across nine volumes and provide comments.

#### Guam kick out causes Chinese attack on Taiwan

Caryl 7 (Washington Chief Editor for Radio Free Europe/Radio Liberty. He is a Contributing Editor at Foreign Policy and a Senior Fellow of the Center for International Studies at MIT, <http://www.newsweek.com/2007/02/25/america-s-unsinkable-fleet.html>)

So why all the fuss over a tropical island just 30 miles long, known mainly for its white-sand beaches and glorious sunsets? The answer: the Pentagon has begun a major redeployment of U.S. forces in the region, pulling troops and equipment out of sometimes unreliable allies and beefing up its presence in more-congenial locales. First on its list is Guam, a U.S. territory since 1898 that **is fast becoming the linchpin of Washington's new Asia strategy.** Current U.S. forces on the island number just a few thousand but within a decade will total well over 20,000—about the same size as the Bush administration's planned surge in Iraq. By comparison, there are some 29,000 U.S. troops left in South Korea, yet despite the dangers of a nuclear-armed North, that number is expected to drop significantly. At a time when most of the world's attention is focused on the United States' misadventures in Iraq and Afghanistan, Pentagon planners are quietly working on ways to fortify the U.S. presence in East Asia. And they're looking to do so in ways that will give them a free hand in a wide range of contingencies—including fighting regional terrorists and a possible showdown with China. Guam offers the U.S. military both proximity to potential hot spots and the advantages of operating off U.S. soil. The transfer of forces to the island also reflects the Pentagon's determination to give regional allies such as South Korea and Japan more responsibility for their own security. Guam, a sleepy but diverse place that looks like a cross between Micronesia and Middle America, has long served as a U.S. air base and way station for troops traveling through the Pacific. At the end of the cold war, the Pentagon began shutting down some facilities on the island. But then came September 11, and a dramatic reassessment of America's global forces. Former secretary of Defense Donald Rumsfeld began to advocate the lily-pad strategy: rather than relying on large, static bases in Germany and South Korea, the Pentagon should create a global network of jumping-off points for quick responses to unpredictable attacks. Guam is an ideal lily pad, since the United States can act there without seeking permission from allies, says Honolulu-based defense analyst Richard Halloran. Declares Carl Peterson of the Guam Chamber of Commerce: "This is the U.S. in Asia. This is the tip of the spear." The island has already become a convenient base for fighting Washington's "Global War on Terror" in Indonesia and the Philippines. Small wonder that Brig. Gen. Douglas H. Owens, the commanding officer of Guam's Andersen Air Force Base, describes the island as "an unsinkable aircraft carrier." It's also well positioned for possible trouble to come. As Rear Adm. Charles Leidig, U.S. Navy commander on Guam, points out, if you take a map and draw a circle with Guam at the center and a radius of 1,500 nautical miles—equivalent to three hours' flying time or two to three days by ship—you come close to the main islands of Japan, Okinawa, Indonesia and the Philippines. China and the Korean Peninsula are only a bit farther off. So are several of the world's most important sea lanes, such as the Strait of Malacca, through which some 50 percent of the world's oil passes each year. The Pentagon, however, may be building up its forces on Guam with even bigger game in mind. "The larger strategic rationale [for the shift] can be summed up in one word, and that's 'China'," says Halloran. "They [the Bush administration] don't want to contain China, and they couldn't. What they are trying to do is to deter the Chinese. That's what the buildup on Guam is all about." The nature of the U.S. reorganization reinforces this point. Washington and Tokyo have agreed to move 8,000 Marines to Guam from Okinawa by 2014, at a cost of $10 billion (60 percent of which will be paid for by the Japanese government). But this is only the most public part of a broader buildup that has largely escaped notice. If all the pieces come together, it could mean billions more in Defense Department funds and a total increase in Guam's population (which is currently just 170,000) of 35,000. Guam is already home to a major U.S. Navy port and one of the biggest bases in the U.S. Air Force, featuring twin two-mile-long runways. Not long after September 11, flights of massive B-52 bombers began returning to Andersen to carry out regular training missions. Now the Air Force has begun to prepare for the deployment of tanker aircraft and up to 48 fighter planes, including the state-of-the-art F-22 Raptor. Andersen has also already started construction of a $52.8 million project that will house up to 10 Global Hawks--large unmanned spy planes that, according to Pacific Command Air Force Gen. Paul Hester, could end up replacing aging U-2 spy planes now based in South Korea. Meanwhile, the Navy has turned its port at Guam's Apra Harbor into a home for two Los Angeles-class nuclear-powered attack submarines, with a third to come later this year. It also plans to refurbish wharves to accommodate aircraft carriers and to transform Guam into a base for its new Littoral Combat Ship (a shallow-draft stealth ship designed to operate close to shore) and Trident submarines. The Tridents, immense cold-war-era craft converted to fire Tomahawk cruise missiles, can also be used by Navy Special Operations Forces, who can set off on missions in mini-submarines launched through the Tridents' missile ports. Guam is already home to an undisclosed number of Navy SEALs, many of whom have seen duty in the war on terror, and their number will likely grow. Guam's new capabilities, however, are designed for more than just low-intensity conflicts. The attack submarines that will soon be based there, for example, probably wouldn't be much use in a conflict with North Korea or Qaeda-allied terrorists in the Philippines; the presence of the subs, experts say, is clearly aimed at the possibility of a naval confrontation with China over the Taiwan Strait. Similarly, analysts argue, the stationing of F-22s and tanker planes on Guam points to the Pentagon's desire to ensure dominance in the air should it have to fight the Chinese. China's media often worry about just this scenario, but not everyone agrees that China is the main target of the Guam buildup. Evan Medeiros of the RAND Corporation says "the initial impetus and primary driver" were to restructure the U.S. military for the wide range of operations it now faces, from fighting the war on terror to chasing pirates and conducting humanitarian missions. In the complicated post-9/11 world, the United States believes it must be able to respond to various threats as flexibly as possible. This means keeping its forces close to the action. In the past that's required basing them in other countries' territories. But Guam offers an almost unique combination of a good location, excellent facilities (including a topnotch harbor, vast warehouses and massive airfields) and a lack of political restraints. As Kurt Campbell, a former White House staffer and Defense Department official now at the Center for a New American Security, says, "[Guam is] a point from which you can do a variety of things. And it's a place to remind people that you're still focused on the region." Campbell points out that these secondary missions, such as protecting sea lanes, countering weapons proliferation and conducting relief missions, remain important; the U.S. military's humanitarian efforts after the tsunami of December 2005 gave a huge boost to the country's reputation in Asia. Brad Glosserman, executive director of Pacific Forum CSIS, a Hawaii-based think tank, agrees. The Asia-Pacific region, he says, "is a jigsaw puzzle where all the pieces are changing shape and size all the time. China's the big story--but there are also changes going in on Japan, India, South Korea, Taiwan." One such development driving the move to Guam has been the steady withdrawal of the United States from South Korea in recent years (more than 9,000 troops have left in the last three years)--a result, in part, of rising anti-Americanism there and Rumsfeld's reluctance to keep troops in politically sensitive places. Some Air Force units that have pulled out of South Korea have already arrived on Guam; others may be yet to come. That, along with the planned removal of the Marines from Okinawa, has led some commentators to characterize the Guam expansion as evidence of a virtual U.S. retreat from East Asia. But Campbell and others disagree: "I would see this not as a retrenchment but as a diversification." Indeed, after years of maintaining an even balance between its Atlantic and Pacific fleets, the U.S. Navy is now clearly emphasizing its force in Asia.

#### Nuclear war

Glaser 11 (Charles, Professor of Political Science and International Affairs – George Washington University, “Will China’s Rise Lead to War?” *Foreign Affairs* Vol. 9 Iss. 2, March/April)

THE PROSPECTS for avoiding intense military competition and war may be good, but growth in China's power may nevertheless require some changes in U.S. foreign policy that Washington will find disagreeable--particularly regarding Taiwan. Although it lost control of Taiwan during the Chinese Civil War more than six decades ago, China still considers Taiwan to be part of its homeland, and unification remains a key political goal for Beijing. China has made clear that it will use force if Taiwan declares independence, and much of China's conventional military buildup has been dedicated to increasing its ability to coerce Taiwan and reducing the United States' ability to intervene. Because China places such high value on Taiwan and because the United States and China--whatever they might formally agree to--have such different attitudes regarding the legitimacy of the status quo, the issue poses special dangers and challenges for the U.S.-Chinese relationship, placing it in a different category than Japan or South Korea. A crisis over Taiwan could fairly easily escalate to nuclear war, because each step along the way might well seem rational to the actors involved. Current U.S. policy is designed to reduce the probability that Taiwan will declare independence and to make clear that the United States will not come to Taiwan's aid if it does. Nevertheless, the United States would find itself under pressure to protect Taiwan against any sort of attack, no matter how it originated. Given the different interests and perceptions of the various parties and the limited control Washington has over Taipei's behavior, a crisis could unfold in which the United States found itself following events rather than leading them. Such dangers have been around for decades, but ongoing improvements in China's military capabilities may make Beijing more willing to escalate a Taiwan crisis. In addition to its improved conventional capabilities, China is modernizing its nuclear forces to increase their ability to survive and retaliate following a large-scale U.S. attack. Standard deterrence theory holds that Washington's current ability to destroy most or all of China's nuclear force enhances its bargaining position. China's nuclear modernization might remove that check on Chinese action, leading Beijing to behave more boldly in future crises than it has in past ones. A U.S. attempt to preserve its ability to defend Taiwan, meanwhile, could fuel a conventional and nuclear arms race. Enhancements to U.S. offensive targeting capabilities and strategic ballistic missile defenses might be interpreted by China as a signal of malign U.S. motives, leading to further Chinese military efforts and a general poisoning of U.S.-Chinese relations.

## Solvency

### NRC Blocks 1NC

#### Siting requirements blocks solvency

King 11 (Marcus, Ph.D., Center for Naval Analyses Project Director and Research Analyst for the Environment and Energy Team, LaVar Huntzinger, Thoi Nguyen, March 2011, Feasibility of Nuclear Power on U.S.Military Installations, www.cna.org/sites/default/files/research/Nuclear Power on Military Installations D0023932 A5.pdf)

A reactor owner/operator, typically a utility, will select a site and may apply for an early site permit from the NRC. They select a reactor design, (certified under a separate process), to construct on the site and then apply for a combined operating license. Construction begins after approval. With respect to the requirement to “consider the potential impact on the quality of life of personnel stationed at military installations at which a nuclear power plant is installed and ways to mitigate those impacts,” it is impossible to talk in specific terms without knowing details about which specific power plant is being considered and the specific locations being considered. In general terms, finding an appropriate site will be challenging. Part of the reason finding an appropriate site will be challenging is because the NRC site consideration process will force full consideration of these factors. Describing the NRC site assessment process is the best and most relevant information that can be provided with respect to this aspect of feasibility at this stage in the process. The NRC approval process described in this section will require that any potential impacts on the quality of life of personnel stationed at military installations at which a nuclear power plant is proposed will be fully consdered and that ways are planned to mitigate those impacts.

#### DoD won’t apply for NRC exemptions – that guts solvency and delays the project by 10 years

King 11 (Marcus, Ph.D., Center for Naval Analyses Project Director and Research Analyst for the Environment and Energy Team, LaVar Huntzinger, Thoi Nguyen, March 2011, Feasibility of Nuclear Power on U.S.Military Installations, www.cna.org/sites/default/files/research/Nuclear Power on Military Installations D0023932 A5.pdf)

The most basic licensing issue relates to whether NRC will have jurisdiction over potential nuclear reactor sites or whether DoD could be self-regulating. Our conversations with NRC indicate it is the only possible licensing authority for reactors that supply power to the commercial grid. However, DOE and DoD are authorized to regulate mission critical nuclear facilities under Section 91b of the Atomic Energy Act. There is some historical precedent for DoD exercising this authority. For example, the Army Nuclear Program was granted exception under this rule with regard to the reactor that operated aboard the Sturgis barge in the 1960s and 1970s [44]. It seems unlikely that DoD would pursue exemption under Section 91b in the future. 10 Regulating power plants is a function that lies beyond DoD's core mission. The Department and the military services are unlikely to have personnel with sufficient expertise to act as regulators for nuclear power plants, and it could take considerable time and resources to develop such expertise. Without NRC oversight DoD would bear all associated risks. The time required to obtain design certification, license, and build the next generation of nuclear plants is about 9 to 10 years. After the first plants are built it may be possible to reduce the time required for licensing and construction to approximately 6 years [45]. The timeline for certification, licensing, and construction projected by DOE for a small nuclear power plant based on an SMR is shown in figure 5 [46].

### Expertise 1NC

#### No Expertise

Parthemore and Rogers 10 (Christine and Will, Bacevich Fellow – CNAS, “Nuclear Reactors on Military Bases May Be Risky,” Center for a New American Security, 5-20, http://www.cnas.org/node/4502)

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.

### Accidents Turn 1NC

#### **Military nuclear installments will be targeted for sabotage – causes accidents**

Wong 12 (Kelvin, Associate Research Fellow – S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, “Beyond Weapons: The Military’s Quest For Nuclear Power – Analysis,” Eurasia Review, 5-22, http://www.eurasiareview.com/22052012-beyond-weapons-the-militarys-quest-for-nuclear-power-analysis/)

Civilian And Military Nuclear Incidents Despite improvements in nuclear safety, public sentiment on nuclear power is generally unfavourable, particularly after a series of high-profile nuclear incidents over the years. Disasters like Chernobyl, Three Mile Island, and the recent Fukushima episodes have sorely demonstrated the perils of operating nuclear reactors, emanating be it from human error or natural calamities. Military forces have also been stung by peacetime nuclear incidents. In March 2008, the American nuclear submarine USS Houston leaked minute amounts of radiation into Sasebo naval base while on a port call, triggering condemnation from Japanese citizens in the district. In the same year, the British nuclear submarine HMS Trafalgar leaked hundreds of litres of radioactive wastewater into a nearby river while docked at Devonport naval base, raising concerns from nuclear safety experts. Mainstream Nuclear Power In The Military? Yet military scientists have not ceased to be tempted by the potential of nuclear power. In response to increasing oil prices and global supply uncertainties, and well-documented cases of logistical strain on forces operating in the Middle East in recent conflicts, the US Defense Advanced Research Projects Agency (DARPA) issued a proposal for innovative solutions in deployable compact nuclear reactors in 2010. In the proposal, DARPA outlined the need to reduce the logistical burden of supplying forward operating bases and forces without access to reliable fuel supply lines. The proposal also suggested that materials science have advanced to the stage where it might have a positive impact on deployable nuclear reactor research. While recent developments suggest that nuclear power technology can potentially be employed in unmanned aircraft and on the ground, it is unlikely to have mainstream military utility. The Cold War period was an era when general attitudes towards nuclear energy were quite favourable, and military experimentation was only limited by funding and scientific expertise. In contrast, nuclear power today has become a hotly debated issue despite its importance in powering the economies of advanced nations today. For the military, the problem with nuclear power is not just about cost and safety, but also of the nature of its operating environment. Deploying volatile nuclear reactors into harm’s way on the battlefield, where their destruction and sabotage are likely, should give military planners cause to pause.

#### Extinction

**Caldicott 94** (Helen, Australian Physician, Nuclear Madness, p. 21)

As a physician, I contend that nuclear technology **threatens life on our planet with extinction.** If present trends continue, the air we breathe, the food we eat, and the water we drink will soon be contaminated with enough radioactive pollutants to post a potential health hazard far greater than any plague humanity has ever experienced. Unknowingly exposed to these radioactive poisons, some of us may be developing cancer right now. Others may be passing damaged genes, the basic chemical units that transmit hereditary characteristics, to future generations. And more of us will inevitably be affected unless we bring about a dramatic reversal of the world’s pronuclear policies

### Nat Gas Blocks 1NC

#### Natural gas blocks

**Biello 12** (David, Associate Editor at Scientific American, March 27, "Small Reactors Make a Bid to Revive Nuclear Power", <http://www.scientificamerican.com/article.cfm?id=small-reactors-bid-to-revive-nuclear-power>)

Regardless of how cheap such Small Modular Reactors may allow nuclear to be in future, it is unlikely to be as cheap as natural-gas-fired turbines in the present. In fact, low natural gas prices stalled the U.S. nuclear renaissance outside Georgia and South Carolina, long before the reactor meltdowns at Fukushima Daiichi in Japan. "Because of an unanticipated abundance of natural gas in the United States, nuclear energy, in general, is facing tough competition," noted an analysis of the prospects for small modular reactors from the University of Chicago published last November. The analysis also suggested that small reactors would be more expensive than large reactors on a per-megawatt basis until manufacturing in significant quantities has happened. "It [is] unlikely that SMRs will be commercialized without some form of government incentive." But the Department of Energy funding may only support two designs. Innovation spurred by competition seems unlikely. And that may ultimately erode the current U.S. nuclear industry advantage—from design to operation to regulation.

### Long Timeframe 1NC

#### Long timeframe to deployment

**ITA, 11** – International Trade Administration (U.S. Department of Commerce, February. Manufacturing and Services Competitiveness Report. “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)

Although SMRs have significant potential and the market for their deployment is growing, their designs must still go through the technical and regulatory processes necessary to ensure that they can be safely and securely deployed. Lightwater technology–based SMRs may not be ready for deployment in the United States for at least a decade, and advanced designs might be even further off. Light-water SMRs and SMRs that have undergone significant testing are the most likely candidates for near-term deployment, because they are most similar to existing reactors that have certified designs and significant operating histories. NuScale is on track to submit its reactor design to the NRC by 2012, as is Babcock & Wilcox for its mPower design. In addition, GE-Hitachi, which already completed an NRC preapplication review for its PRISM reactor in 1994, plans to submit its PRISM design for certification in 2012.

### No Commercialization 2NC

#### DoD doesn’t drive the domestic market

Dimotakis 6 (Paul Dimotakis, The MITRE Corporation, 2006, December 09, 2006, Reducing DoD Fossil-Fuel Dependence, http://www.fas.org/irp/agency/dod/jason/fossil.pdf)

The 2006 DoD fossil-fuel budget is, approximately, 2.5-3% of the national-defense budget, the range dependent on what is chosen as the total national-defense budget. iv Larger (percentage) fuel costs are borne by families and many businesses, for example, and fuel costs have only relatively recently become noticeable to the DoD. 3. At present, there is a large spread between oil-production cost and crude-oil prices. Many projections, however, including that of the U.S. Energy Information Agency, indicate that crude oil prices may well decrease to $40-$50/barrel within the next few years, as production and refining capacity increases to match demand. 4. DoD is **not a sufficiently large customer to drive the domestic market** for demand and consumption of fossil fuel alternatives, or to drive fuel and transportation technology developments, in general. Barring externalities, e.g., subsidies, governmental and departmental directives, etc., non-fossil-derived fuels are not likely to play a significant role in the next 25 years. 5. DoD fuel consumption constraints and patterns of use **do not align well with those of the commercial sector**. Most commercial-sector fuel use, for example, is in ground transportation, with only 4% of domestic petroleum consumption used for aviation. In contrast, almost 60% of DoD fuel use is by the Air Force, with additional fuel used in DoD aviation if Naval aviation consumption is included. Options for refueling ships at sea are more limited (or nonexistent) compared to those for commercial vehicles in urban areas. Options for DoD use of electrical energy on ground vehicles are limited, since one can not expect to plug into the grid in hostile territory, for example, to refuel/recharge an electric vehicle. Furthermore, drive cycles for DoD ground vehicles differ significantly from EPA drive cycles that, as a consequence, provide poor standards for fuel consumption.

## Heg

### Grid Resilient – 1NC

#### Grid is resilient and sustainable

Clark 12, MA candidate – Intelligence Studies @ American Military University, senior analyst – Chenega Federal Systems, 4/28/’12

(Paul, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack,” American Military University)

In 2003, a simple physical breakdown occurred – trees shorted a power line and caused a

fault – that had a cascading effect and caused a power blackout across the Northeast (Lewis

2010). This singular occurrence has been used as evidence that the electrical grid is fragile and

subject to severe disruption through cyber-attack, a disruption that could cost billions of dollars,

brings business to a halt, and could even endanger lives – if compounded by other catastrophic

events (Brennan 2012). A power disruption the size of the 2003 blackout, the worst in American¶ history at that time (Minkel 2008), is a worst case scenario and used as an example of the¶ fragility of the U.S. energy grid. This perceived fragility is not real when viewed in the context¶ of the robustness of the electrical grid.¶ When asked about cyber-attacks against the electrical grid in April of 2012, the¶ intelligence chief of U.S. Cyber Command Rear Admiral Samuel Cox stated that an attack was¶ unlikely to succeed because of the “huge amounts of resiliency built into the [electrical] system¶ that makes that kind of catastrophic thing very difficult” (Capaccio 2012). This optimistic view¶ is supported by an electrical grid that has **proven to be robust in the face of large natural¶ catastrophes.** Complex systems like the electrical grid in the U.S. are prone to failures and the¶ U.S. grid fails frequently. Despite efforts to reduce the risk out power outages, the risk is always¶ present. Power outages that affect more than 50,000 people have occurred steadily over the last¶ 20 years at a rate of 12% annually and the frequency of large catastrophes remains relatively¶ high and outages the size of the 2003 blackout are predicted to occur every 25 years (Minkel¶ 2008). In a complex system that is always at risk of disruption, the effect is mitigated by policies¶ and procedures that are meant to restore services as quickly as possible. The most visible of these policies is the interstate Emergency Management Assistance Compact, a legally binding¶ agreement allowing combined resources to be quickly deployed in response to a catastrophic¶ disaster such as power outages following a severe hurricane (Kapucu, Augustin and Garayev¶ 2009).¶ The electrical grid suffers service interruptions regularly, it is a large and complex system¶ supporting the largest economy in the world, and yet commerce does not collapse (Lewis 2010).¶ **Despite blizzards, earthquakes, fires, and hurricanes** that cause blackouts, the economy is¶ affected but does not collapse and even after massive damage like that caused by Hurricane¶ Katrina, national security is not affected because U.S. military capability is not degraded (Lewis¶ 2010).¶ Cyber-security is an ever-increasing concern in an increasingly electronic and¶ interconnected world. Cyber-security is a high priority “economic and national security¶ challenge” (National Security Council n.d.) because cyber-attacks are expected to become the¶ top national security threat (Robert S. Mueller 2012). In response to the threat Congress is¶ crafting legislation to enhance cyber-security (Brito and Watkins 2012) and the Department of¶ Homeland Security budget for cyber-security has been significantly increased (U.S. Senate¶ Committee on Homeland Security and Governmental Affairs 2012).

### Backup

#### The military isn’t stupid – backup capacity solves blackouts

Aimone 9-12 (Dr. Michael, Director of Business Enterprise Integration – Office of the Deputy Under Secretary of Defense (Installations and Environment), “Statement Before the House Committee on Homeland Security, Subcommittee on Cybersecurity, Infrastructure Protection and Security Technologies,” 2012, http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf)

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

### No Cutoff

#### Switching energy sources doesn’t reduce the risk of supply cut-offs—it’s also vulnerable to the same price swings

Shachtman 12, contributing editor – Wired, editor – Danger Room, nonresident fellow – Brookings, 4/27/’12

(Noah, “Is the Pentagon Going Green, or Eco-Pretending?” <http://www.wired.com/dangerroom/2010/04/is-the-pentagon-going-green-or-eco-pretending/?utm_source=Contextly&utm_medium=RelatedLinks&utm_campaign=Previous>)

Navy Secretary Ray Mabus says he’s ready to turn an entire carrier strike group an environmentally friendly armada — from biofueled fighter jets to hybrid ships — by 2016. The idea: demonstrate that some of the military’s biggest gas guzzlers don’t have to stay that way. But even Mabus’ own energy specialists aren’t sure what “deploying” this so-called “Great Green Fleet” will really mean. “**It’ll depend on the supply chain.** If they go over the horizon and 30 days later they have to go back to regular fuel because there’s not enough biofuel, then so be it,” says Chris Tindal, deputy director for renewable energy in the Navy’s Energy Office.¶ The story is already generating some discussion in the Defense Department. “How will replacing one fuel with another (a la the Green Fleet) change any military advantage or vulnerability” asks one Pentagon official in a thought-provoking e-mail. The note in full, after the jump.¶ Here are some thoughts to consider. How will replacing one fuel with another (a la the Green Fleet) change any military advantage or vulnerability? From a military perspective, a requirement for maple syrup (instead of JP-8 [the standard, petroleum-based fuel]) would still mean that we’re vulnerable to supplies of maple syrup. You’re right to bring up the nuclear navy example, but the benefits of nuclear power were more clear from a military perspective. Primarily, they cut the need for oilers to refuel the carrier. Unless we’re brewing up the fuel at sea (which I haven’t heard about), the Green Fleet does no such thing. It’s also useful to remember that a criticism of the carrier’s nuclear power is that the air wing and battle group still needed to be refueled (esp after demise of nuclear power CGs [cruisers]) and retained the need for the long logistics tails. Makes me think of the scenario of the CVN [aircraft carrier] speeding to the Arabian Sea, only to leave behind the battle group when they needed to refuel.¶ Supplier diversity is important, but equally – maybe more important – is reducing our energy needed for a given level of mission output. Developing non-petroleum supplies of fuel does not, by itself, affect any form of military vulnerability. The quote by Chris Tindal is telling. It may be a net social or public policy good to pursue the Green Fleet, but it’s not clear how this increases our military advantage or decreases our vulnerability. Strategically, we’ll always be able to get petroleum – it may cost a lot, but we can get it. DoD consumption is a pittance compared to global supply (or even US supply), and **the bigger problem is getting it to the user.** Operational energy risk is about being vulnerable to those logistics **being disrupted**. Reducing demand, not substituting one fuel for the other, will reduce that vulnerability.**¶** Something to consider. I’m all for energy alternatives, but we should place them in the related but often distinct contexts of national policy objectives on the one hand, and more narrow military risks and opportunities on the other.¶ Hope all is well. Look forward to talking more, if you like.¶ Cheers,¶ XXXXXXXX¶ PS: One final comment. Someone once said that the best solution to global warming is a gallon of fuel not used. Never mind the new exotic alternative fuels, better efficiency might do the trick better. Not sexy, but efficiency pays.

### Heg D

#### Heg doesn’t prevent war

**Fettweis 10** (Christopher J. Professor of Political Science at Tulane, Dangerous Times-The International Politics of Great Power Peace, pg. 175-6)

If the only thing standing between the world and chaos is the US military presence, then an adjustment in grand strategy would be exceptionally counter-productive. But it is worth recalling that none of the other explanations for the decline of war – nuclear weapons, complex economic interdependence, international and domestic political institutions, evolution in ideas and norms – necessitate an activist America to maintain their validity. Were American to become more restrained, nuclear weapons would still affect the calculations of the would be aggressor; the process of globalization would continue, deepening the complexity of economic interdependence; the United Nations could still deploy peacekeepers where necessary; and democracy would not shrivel where it currently exists. More importantly,the idea that war is a worthwhile way to resolve conflict would have no reason to return. As was argued in chapter 2, normative evolution is typically unidirectional. Strategic restraint in such a world be virtually risk free.

## Water Wars

### Exports Alt Cause 1NC

#### Restrictions on nuclear exports block US competitiveness

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

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

### AT: Water Scarcity

#### No water shortage --- most recent report is on our side

**Yeo**, 4/27/**2012** (Daniel, Landmark report tackles myths and fears about water scarcity in Africa, Trust, p. http://www.trust.org/alertnet/blogs/africa-views/landmark-report-tackles-myths-and-fears-about-water-scarcity-in-africa/)

DFID-funded work by the British Geological Society has revealed that there are huge amounts of groundwater available in Africa – 100 times the amount found on the surface. This is being widely reported as a landmark study – “we’ve finally found water in Africa!”. And it is a landmark study – not because we now know that there’s enough water in Africa (we’ve always known this...), but because it tackles the public story on water. The “world’s water crisis” is often told as a story of scarcity and running out of water – this is not the truth and this report takes on the myths and helps take the scare out of scarcity. Groundwater: hidden and misunderstood... The vast majority of the world’s water is groundwater – around 30% of the world’s freshwater is in the ground, compared to less than 0.5% on the surface (the rest is locked up in glaciers and snow). Yet we tend to ignore it because it is not visible. People are aware of the concept of ‘the water table’, which evokes an image of a nice, level pool of water hiding just beneath the surface. Groundwater is much more complex – water is stored in a variety of underground pockets. Some big, some small, some like a sponge, some like a cracked pavement. Some are easy to get water out of, some less so. This report is the first time that this complex mess has been quantified in this detail.

#### Water shortages don’t cause war --- the best new studies prove.

**Bier**, 11/28/**2011** (David – policy analyst at the Competitive Enterprise Institute, Steven Pinker: Resource Scarcity Doesn’t Cause Wars, p. http://www.globalwarming.org/2011/11/28/steven-pinker-resource-scarcity-doesnt-cause-wars/)

Once again it seems to me that the appropriate response is “maybe, but maybe not.” Though climate change can cause plenty of misery… it will not necessarily lead to armed conflict. The political scientists who track war and peace, such as Halvard Buhaug, Idean Salehyan, Ole Theisen, and Nils Gleditsch, are skeptical of the popular idea that people fight wars over scarce resources. Hunger and resource shortages are tragically common in sub-Saharan countries such as Malawi, Zambia, and Tanzania, but wars involving them are not. Hurricanes, floods, droughts, and tsunamis (such as the disastrous one in the Indian Ocean in 2004) do not generally lead to conflict. The American dust bowl in the 1930s, to take another example, caused plenty of deprivation but no civil war. And while temperatures have been rising steadily in Africa during the past fifteen years, civil wars and war deaths have been falling. Pressures on access to land and water can certainly cause local skirmishes, but a genuine war requires that hostile forces be organized and armed, and that depends more on the influence of bad governments, closed economies, and militant ideologies than on the sheer availability of land and water. Certainly any connection to terrorism is in the imagination of the terror warriors: terrorists tend to be underemployed lower-middle-class men, not subsistence farmers. As for genocide, the Sudanese government finds it convenient to blame violence in Darfur on desertification, distracting the world from its own role in tolerating or encouraging the ethnic cleansing. In a regression analysis on armed conflicts from 1980 to 1992, Theisen found that conflict was more likely if a country was poor, populous, politically unstable, and abundant in oil, but not if it had suffered from droughts, water shortages, or mild land degradation. (Severe land degradation did have a small effect.) Reviewing analyses that examined a large number (N) of countries rather than cherry-picking one or toe, he concluded, “Those who foresee doom, because of the relationship between resource scarcity and violent internal conflict, have very little support from the large-N literature.”

### A2 Indo-Pak Water War

#### Indus Waters Treaty solves Indo-Pak water wars

Tir and Stinnett 12 (Jaroslav Tir and Douglas M. Stinnett, Associate Professor in the Department of International Affairs at the University of Georgia AND assistant professor of international affairs in UGA's School of Public &. International Affairs, "Weathering climate change: Can institutions mitigate international water conflict?" January, Vol. 49, Issue 1, Sage Journals)

Conflict management¶ To cope with disagreements among signatories, some river treaties specify a variety of formal procedures for dispute management. The Permanent Indus Commission, for example, is responsible for resolving disputes between India and Pakistan over the implementation of the Indus Waters Treaty. Disputes are managed primarily through regular meetings of the officials that make up the two national sections of the Commission (Zawahri, 2009b). At the opposite end of the spectrum lie mandates for binding arbitration or adjudication by an existing international institution. For example, Hungary and Slovakia have resorted to the ICJ to resolve a dispute involving a 1977 treaty governing water infrastructure projects on the Danube (McCaffrey, 2003).¶ Dispute resolution provisions can address different sources of noncompliance, including those related to anticipated consequences of climate change. A formal process of resolving disputes can address overt cheating by raising the visibility of noncompliance (Abbott & Snidal, 2000). By increasing the costs of violations – some of which may appear particularly tempting due to the effects of climate change (e.g. unilaterally increase withdrawal rates to compensate for lack of water due to a number of dry years) – dispute settlement mechanisms can improve compliance.¶ Conflict management institutions can also address disputes over an agreement’s exact obligations. If climate change causes changes to a river system that were not envisioned at the time of the treaty signing, such as lower flow or greater seasonal variation, then these conditions will make the treaty less effective and increase the risk of conflict. In these circumstances, provisions in a treaty for dealing with unforeseen conditions will become important for preventing conflict. The rulings of a third-party arbitration panel, court, or even informal mediation through a secretariat or intergovernmental body can clarify the terms of a treaty (Chayes & Chayes, 1995). This enhances compliance by limiting the occurrence of unintended violations that result from treaty ambiguities or changed circumstances.

### Africa

#### -- African war inevitable

Thakur 6 (Ramesh, Senior Vice Rector – UN University (Tokyo), “At Least No New Wars Began”, Japan Times, 2-15, Lexis)

In Africa, the Ethiopia-Eritrea peace frayed dangerously with neither side showing willingness to compromise in the ongoing border dispute. The security and humanitarian situation in Darfur remained dire. The small and belatedly deployed African Union peace force could not adequately protect displaced civilians, new fighting erupted, the rebel movement remained divided and Khartoum was less than cooperative. The political settlement sought by the A.U. looks far off. The Democratic Republic of Congo's shaky transition inched forward amid widespread insecurity. Up to 1,000 still die every day from disease, malnutrition and violence. Almost 4 million have perished in eight years of war. Zimbabwe's March parliamentary election gave the ruling ZANU-PF party a controversial landslide over the opposition, but failed to resolve the five-year political impasse. Better news came with Liberia's successful elections in November, choosing the continent's first woman president. Burundi's peace process progressed with major victories by the former opposition (and insurgent) CNDD-FDD in communal and legislative elections.

# 2NC

### Perm Do CP 2NC

#### A) Mutually exclusive – military leaders must choose between independence and open communication

Eriksen 3 (Jan, Rear Admiral – NATO, “NATO CIVIL-MILITARY CO-OPERATION (CIMIC) DOCTRINE,” June, AJP-9, http://www.nato.int/ims/docu/ajp-9.pdf)

Communication. Effective communication with civil authorities, agencies, organisations and populations is vital to maintaining consent and cooperation. Differences between military and civilian organisations - whether perceived or otherwise- **require an investment in time and understanding to overcome**. Civilian organisations with which the military will deal are likely to pursue their own priorities. Indeed, some may take the view that co-operation with the military and independence are mutually exclusive. The key to minimising these difficulties is to maintain open and constant communication. Clear and effective measures to establish and maintain these communication channels through CIMIC staffs with representatives of appropriate civilian organisations and lead agencies should be developed to avoid potential disruptions and misunderstandings. As civilian organisations continue to arrive throughout the operation, they should be encouraged to adapt to the established system.

#### B) Minor modifications – the plan ignores requested modifications like noise reductions, which they’ll ask for.

DOD 4 (Federal Register, 2/12, http://www.leg.wa.gov/JointCommittees/JCVMA/Documents/JCVMArpt.pdf)

(d) The Department did not receive any requests from local governments that a particular installation be closed or realigned pursuant to section 2914(b)(2) of Public Law 101–510, which states that the Secretary shall consider any notice received from a local government in the vicinity of a military installation that the local government would approve of the closure or realignment of the installation. A few private citizens, **however**, asked that a particular installation be closed or that operations be restricted to limit noise or other community impacts.

#### 3) Severs the funding mechanism

#### A) PPAs are deals exclusively between developers and utilities that are locked-in – can’t allow for changes like the CP

Trabish 12 (Herman, writes and edits NewEnergyNews, “Anatomy of a Utility-Scale PPA for Solar or Wind,” Green Tech Media, 10-3, http://www.greentechmedia.com/articles/read/Anatomy-of-a-Utility-Scale-PPA-for-Solar-or-Wind)

Utility-scale renewables’ power purchase agreements (PPAs), the LA Times recently wrote, are “confidential agreements between solar developers and utilities” that “lock in power prices two to four times the cost of conventional electricity” which ultimately “line the pockets of banks, insurers and utility companies.”

#### B) That’s true of any alternative financing mechanism that uses the military

O’Rourke and Schwartz 12 (Ronald, Specialist in Naval Affairs – CRS, and Moshe, Specialist in Defense Acquisition – CRS, “Multiyear Procurement (MYP) and Block Buy Contracting in Defense Acquisition: Background and Issues for Congress,” Congressional Research Service, 6-27, http://www.fas.org/sgp/crs/natsec/R41909.pdf)

Funding Approaches vs. Contracting Mechanisms In discussing MYP and BBC, it can be helpful to distinguish funding approaches from contracting mechanisms. The two are often mixed together in discussions of DOD acquisition, sometimes leading to confusion. Stated briefly: • Funding approaches are ways that Congress can appropriate funding for weapon procurement programs, so that DOD can then **put them under contract**. Examples of funding approaches include traditional full funding (the standard or default approach), incremental funding, and advance appropriations. 2 Any of these funding approaches might make use of **advance procurement** (AP) funding. 3 • Contracting mechanisms are ways for DOD to contract for the procurement of weapons systems, once funding for those systems has been appropriated by Congress. Examples of contracting mechanisms include annual contracting (the standard or default approach), MYP, and BBC. The use of a particular funding approach in a defense acquisition program does not dictate the use of a particular contracting mechanism. Defense acquisition programs consequently can be implemented using various combinations of funding approaches and contracting mechanisms. Most DOD weapon acquisition programs use a combination of traditional full funding and annual contracting. A few programs, particularly certain Navy shipbuilding programs, use incremental funding as their funding approach. A limited number of DOD programs use MYP as their contracting approach, and to date at least two defense acquisition programs (both Navy shipbuilding programs) use or have used BBC as their contracting approach.

[Continues to Footnote]

For more on these three funding approaches, see CRS Report RL31404, Defense Procurement: Full Funding Policy— Background, Issues, and Options for Congress, by Ronald O'Rourke and Stephen Daggett, and CRS Report RL32776, Navy Ship Procurement: Alternative Funding Approaches—Background and Options for Congress, by Ronald O'Rourke. Advance appropriations, which are not to be confused with advance procurement (AP) funding (see footnote 3), are essentially a legislatively locked-in form of incremental funding. Unlike incremental funding, advance appropriations qualify under budgeting regulations as a form of full funding.

#### C) “Increase” means the incentives must be actualized, not simply proposed

**HEFC 4** (Higher Education Funding Council, <http://www.publications.parliament.uk/pa/jt200304/jtselect/jtchar/1> 67/167we98.htm# n43)

9.1 The Draft Bill creates an obligation on the principal regulator to do all that it "reasonably can to meet the compliance objective in relation to the charity".[ 45] The Draft Bill defines the compliance objective as "to increase compliance by the charity trustees with their legal obligations in exercising control and management of the administration of the charity".[ 46] 9.2 Although the word "increase" is used in relation to the functions of a number of statutory bodies,[47] such examples demonstrate that "increase" is used in relation to considerations to be taken into account in the exercise of a function, rather than an **objective** in itself. 9.3 HEFCE is concerned that an obligation on principal regulators to "increase" compliance per se is unworkable, in so far as it does not adequately define the limit**s** or nature of the statutory duty. Indeed, the obligation could be considered to be ever-increasing.

#### 4) Severs normal means – they use the DoD which precludes tailored approaches like the CP

DOD 4 (Federal Register, 2/12, http://www.leg.wa.gov/JointCommittees/JCVMA/Documents/JCVMArpt.pdf)

(e) A few commentors expressed concern over the broad nature of the criteria and requested greater detail, including in some cases requests for definitions, specificity regarding select functions, and explanations of when a closure as opposed to a realignment was appropriate. While the Department appreciates a desire for detail, the inherent mission diversity of the Military Departments and Defense Agencies makes it impossible for DoD to specify detailed criteria that could be applied to all installations and functions within the Department. Broad criteria allow flexibility of application across a wide range of functions within the Department.

#### “Substantial” means that the plan must be definite, mandated

Words and Phrases 64 (40W&P 759)

The words" outward, open, actual, visible, substantial, and exclusive," in connection with a change of possession, mean substantially the same thing. They mean not concealed; not hidden; exposed to view; free from concealment, dissimulation, reserve, or disguise; in full existence; denoting that which not merely can be, but is opposed to potential, apparent, constructive, and imaginary; veritable; genuine; certain: absolute: real at present time, as a matter of fact, not merely nominal; opposed to form; actually existing; true; not including, admitting, or pertaining to any others; undivided; sole; opposed to inclusive.

### Perm Do Both – 2NC

#### B) The perm maintain military plan’s as the primary consideration

DOD 4 (Federal Register, 2/12, http://www.leg.wa.gov/JointCommittees/JCVMA/Documents/JCVMArpt.pdf)

(k) A few commentors asked the Department to give priority to relocating activities within the same state or local community. The Department recognizes that the economic impact of BRAC reductions can be lessened by moving functions to geographically proximate locations. As specified in the BRAC legislation, however, military value must be the primary consideration when making these decisions. Specifically, those factors that are set out in criteria one through four are the most important considerations when selecting receiving locations.

[NOTE: from BRAC website, “Welcome to the 2005 Defense Base Closure and Realignment (BRAC) Commission's official website. Our goal is to assist the American public, including interested stakeholders, to fully understand the open and transparent process through which our work is conducted”]

#### That destroys any signal sent by the CP

Sugarman 5 (Jeremy, Harvey M. Meyerhoff Professor of Bioethics and Medicine, professor of medicine, professor of health policy and management, and deputy director for medicine of the Berman Institute of Bioethics at the Johns Hopkins University, “Ethical Goals of Community Consultation in Research,” American Journal of Public Health, July; 95(7): 1123–1127, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1449329/)

Rather than soliciting input, community consent involves soliciting approval or permission to conduct a study within a community. Community consent may occur after community consultation and does not obviate the need for individual consent.36,37 Rather, the community decides whether to permit investigators to solicit participation from community members. For community consent to be valid, there must be a legitimate political system in place, with representatives properly empowered to make such decisions on behalf of the community.37,38 In many aboriginal communities, such legitimate systems exist. However, disease-based communities and many social groups typically lack a political structure, which makes community consent inappropriate.37,38 Although conceptually distinct, the line between community consultation and community consent is inevitably blurred in practice. It would be **disingenuous to enter into a consulting arrangement** where the consulting party does not intend, ex ante, to take the consultants’ advice. If relevant consultants have strong negative reactions or **endorse particular modifications**, those reactions or modifications have significant moral force and warrant respect and careful consideration, even though investigators may sometimes justifiably act contrary to such opinions. Otherwise, community consultation is merely symbolic.39 Despite the clear conceptual distinction between consent and consultation, the degree to which consultants’ support is necessary represents a persistent challenge.15,16,29

#### 2) The perm is a one-size fits all approach – tailored and genuine consultation are key

Origin 12 (“Origin Energy’s Response - to the Draft NSW Planning Guidelines: Wind Farms,” 3-14, Department of Planning and Infrastructure, <http://www.planning.nsw.gov.au/LinkClick.aspx?fileticket=yjWiCDme6F4%3D&> tabid=205&mid=1081&language=en-US)

Consultation with local authorities, such as council, would also assist in developing a community engagement plan that is appropriate for the project and the local area. Local authorities can also assist in facilitating the dissemination of project information and identify opportunities to maximise public participation. 9 The lengthy nature of wind farm developments means that it is likely multiple community engagement plans may be required to meet the differing engagement needs of different stages of a project. The objectives, tools and methods, frequency of contact and engagement activities should be tailored to each stage. At the appropriate times, seeking specific feedback from stakeholders and/or surveys with the local community would help inform preferred consultation methods and frequency. It is anticipated that the community engagement plan would be revised and updated regularly to incorporate stakeholder feedback and changes to the project. Implementation of the plan and evidence of its implementation should be included in the assessment process. A typical stage-by-stage community engagement approach has been included in Appendix A as a reference. Comments on the Draft Guidelines Origin agrees with the Government’s objectives expressed in the Draft Guidelines that “a comprehensive, detailed and genuine community consultation and engagement process must occur, and that consultation needs to be genuine and aimed at identifying and considering options for eliminating or reducing impacts, not merely informing communities”. However, **every community is unique**. Different communities may have different preferences on how they wish to receive information and engage. Indeed, no one community is a homogenous entity and it is reasonable to expect that an effective consultation program would be tailored to meet the different needs for different sections/stakeholders within the community. As described earlier, information and consultation requirements during the life of a wind farm (from development, construction to operation and decommissioning) vary greatly. Our experience is that attempts at adopting a one-size-fits-all approach usually fails to deliver on effective community consultation.

#### Independently – that turns hegemony

Schaffer 12 (Douglas J., National Security Analyst with AUSA's Institute of Land Warfare, “Linking Latin America and the Pacific: A Strategy for the Long Term,” National Security Watch, 12(3), July, http://www.ausa.org/publications/ilw/ilw\_pubs/nationalsecuritywatch/Documents/NSW\_12-3\_web.pdf)

The second benefit is a subset of the United States countering Chinese military presence in Latin America. By taking a nation-by-nation approach, the United States can properly contextualize and **tailor its military efforts** with Latin America. This is an opportunity for the United States to focus on the non-kinetic aspects of its new defense guidance. Mexico and Colombia may very well need continued hard-power-related resourcing and support from the United States; however, not every nation is consumed by a counternarcotics campaign. The humanitarian relief/ rescue, disaster response, capacity building and even cybersecurity requirements are just as valid for South and Central American nations. 18 A tailored approach will let the United States lev**erage its military as an institution rather than just as a force**. The United States military has levels of expertise, experience and professionalism in many functional areas—such as logistics or personnel—that China cannot match. More joint training exercises, more officer embedding and exchanges, more professional education and more noncombat operations focus (both in equipping/sales and training) will show U.S. allies that the United States takes seriously the nuances of each nation and will force the United States to pay more than lip service to the non-counterterror aspects of its strategic guidance. By being an attentive and responsive security partner that demonstrates a valuation of relationships over material, **the United States can contrast itself to China** in terms of reliability, longevity and long-term aims for each nation.

### Say Yes – 2NC

#### A) It provides critical services

King 11 (Marcus, Ph.D., Center for Naval Analyses Project Director and Research Analyst for the Environment and Energy Team, LaVar Huntzinger, Thoi Nguyen, March 2011, Feasibility of Nuclear Power on U.S.Military Installations, www.cna.org/sites/default/files/research/Nuclear Power on Military Installations D0023932 A5.pdf)

Typically, transmission lines transfer electricity at high voltages over long distances to minimize loss; electricity distribution systems carry medium voltages. For electrical power transmission, very little additional infrastructure is required to incorporate small nuclear power plants because they would be located on or near the DoD installation being serviced. However, redundancy in transmission lines would make the overall network more robust. Electricity control capabilities, such as self-healing 6 and optimization of assets to increase operational efficiency, could improve overall power availability; however, they are not necessary for the integration of small nuclear power plants. Key components for improving electricity control include advanced electricity meters and electricity meter data management. These tools are needed in order to establish islanding, a condition in which a portion of the utility system, which contains both load and generation, is isolated from the remainder of the utility system and continues to operate. Since the power generation capacities of small nuclear power plants are larger than required for most DoD bases, islanding could extend to adjacent communities if sufficient technical upgrades were performed to systems outside of the installation. This contributes to DoD missions because civilians and service members working on the installation often live with their families in adjacent communities. The power would ensure that **critical services such as emergency response, waste water treatment, and hospitals** could be maintained.

#### B) Economics

DOD 4 (Federal Register, 2/12, http://www.leg.wa.gov/JointCommittees/JCVMA/Documents/JCVMArpt.pdf)

(j) A few commentors cautioned the Department against using the authority provided by section 2914(c) to close and retain installations in inactive status because of the negative effect such action might have on the relevant local community. The Department recognizes that job creation gained through the economic reuse of facilities is critically important to mitigate the negative impact of BRAC recommendations. As such, the Department will exercise the utmost caution and consideration when exercising its authority to retain installations in an inactive status. It should be noted that the Department has always had this authority, even though its appearance in the authorizing legislation for the 2005 round would indicate it is a new authority. As such, the Department’s actions in the four previous base closure rounds demonstrate that it will be exercised judiciously.

[NOTE: from BRAC website, “Welcome to the 2005 Defense Base Closure and Realignment (BRAC) Commission's official website. Our goal is to assist the American public, including interested stakeholders, to fully understand the open and transparent process through which our work is conducted”]

#### **All of this is true DESPITE Fukushima – prefer our studies**

Phuong 12 (Nguyen, Officer – Department of Nuclear Science & Technology Management, “Public Communication Programme for the First Nuclear Power Project,” Ministry of Science and Technology – Vietnam Atomic Energy Agency, January, http://www.iaea.org/nuclearpower/downloads/infrastructure/meetings/2012-01-tm-ws-vienna/day-1/8.publiccommunicationprogramme-for-the-first-npp-nvphuong.pdf)

Results

• **Active support** from majority of local communities to the Project, some even urge to accelerate the Project

• Official agreement to the Project from the People’s Committees (local authority) of all three levels: Phuoc Dinh & Vinh Hai communes (sites for 2 first NPPs); Ninh Phuoc (now Thuan Nam) & Ninh Hai districts; Ninh Thuan Province

• **Continuous public understanding and support , even after Fukushima Accident**

### Disease D

#### -- No extinction

Gladwell 99 (Malcolm, The New Republic, July 17 and 24, 1995, excerpted in Epidemics: Opposing Viewpoints, p. 31-32)

Every infectious agent that has ever plagued humanity has had to adapt a specific strategy but every strategy carries a corresponding cost and this makes human counterattack possible. Malaria is vicious and deadly but it relies on mosquitoes to spread from one human to the next, which means that draining swamps and putting up mosquito netting can all hut halt endemic malaria. Smallpox is extraordinarily durable remaining infectious in the environment for years, but its very durability its essential rigidity is what makes it one of the easiest microbes to create a vaccine against. AIDS is almost invariably lethal because it attacks the body at its point of great vulnerability, that is, the immune system, but the fact that it targets blood cells is what makes it so relatively uninfectious. Viruses are not superhuman. I could go on, but the point is obvious. Any microbe capable of wiping us all out would have to be everything at once: as contagious as flue, as durable as the cold, as lethal as Ebola, as stealthy as HIV and so doggedly resistant to mutation that it would stay deadly over the course of a long epidemic. But viruses are not, well, superhuman. They cannot do everything at once. It is one of the ironies of the analysis of alarmists such as Preston that they are all too willing to point out the limitations of human beings, but they neglect to point out the **limitations** of microscopic life forms.

#### -- Burn out stops disease

Lederberg 99 (Joshua, Professor of Genetics – Stanford University School of Medicine, Epidemic The World of Infectious Disease, p. 13)

The toll of the fourteenth-century plague, the "Black Death," was closer to one third. If the bugs' potential to develop adaptations that could kill us off were the whole story, we would not be here. However, with very rare exceptions, our microbial adversaries have a **shared interest** in our survival. Almost any pathogen comes to a **dead end** when we die; it first has to communicate itself to another host in order to survive. So historically, the really severe host- pathogen interactions have resulted in a **wipeout** of **both** host and pathogen. We humans are still here because, so far, the pathogens that have attacked us have willy-nilly had an interest in our survival. This is a very delicate balance, and it is easily disturbed, often in the wake of large-scale ecological upsets.

### Nat Gas Blocks 2NC

#### Prefer our evidence – recent trends decisively conclude neg, but their authors always think that the Renaissance is around the corner

Maize 12 (Kennedy, Staff Writer – POWER Magazine, “A Bumpy Road for Nukes,” 8-6, POWERnews, http://www.powermag.com/nuclear/4859.html)

It’s been a rough road for nuclear advocates in the U.S. of late, although nothing seems to dent the Pollyanna armor of the nuclear crowd, always appearing to believe a revival is just over the horizon and headed into view. Here are a few fraught developments for the nuclear business that suggest the positive vision just might be a mirage. \* GE CEO Jeff Immelt in a recent interview with the Financial Times revealed a surprising and somewhat uncharacteristic realism with regard to the company’s nuclear future and that of its partner in radioactivity, Hitachi. In London for the Summer Olympics, Immelt told a reporter for the FT, “It’s really a gas and wind world today. When I talk to the guys who run the oil companies, they say look, they’re finding more gas all the time. It’s just hard to justify nuclear, really hard. Gas is so cheap, and at some point, really, economics rule.” For the nuclear industry, economics has always been the fundamental enemy – not the green-tinged, hairy anti-nuke activists, but the folks with the green eye shades, sharp pencils and, today, even sharper spreadsheets. The nuclear execs long have pursued governments as their bulwark against markets, and that has often worked. Today, as Immelt notes, gas has made the market forces so overwhelming, at least in those places such as the U.S. where gas is astonishingly abundant, that even government likely can’t come to the rescue of nuclear power. Could that have something to do with the abject failure of the 2005 Energy Policy Act’s loan guarantee provisions, which have not worked for renewables any better than they have worked for nukes? Indeed, the threat of gas is at least as potentially toxic for many wind and solar projects as it is for nuclear and coal new build. \* In Georgia, the Southern Company is facing what looks like growing problems with its Vogtle project, which aims for two new nuclear units using the unproven but promising Westinghouse AP1000 reactor design. With its federal loan in jeopardy (Southern says it can go ahead without taxpayer funds) and the project running behind schedule and over budget, the Atlanta-based utility now faces lawsuits brought by the reactor vendor and the construction contractor Shaw Group. The amount in dispute, some $29 million, is tiny compared to the multi-billion-dollar price tag for the project. But it may be revealing of ruptures in the deal. Robert Marritz, an energy lawyer and veteran industry observer, publisher of ElectricityPolicy.com, commented that “the very filing of a lawsuit at this stage of the first nuclear plant construction in decades is stunning, reflecting stresses in a relationship that should, one would think, be contained and resolved rather than boiling over into public view.” Indeed, the parties are also engaged in a larger, perhaps nastier, dispute involving $800 million that has not gotten much public exposure. And that’s real money. \* Moving to California, the long-running saga of Edison International’s San Onofre Nuclear Generating Station (SONGS, how’s that for an inept acronym?) continues, with little clarity in sight. The plant has been out of service since January as a result of unexpected and still unexplained tube wear in the plant’s steam generators. According to Bloomberg New Energy Finance, the outage is costing the utility about $1.5 million a day just in lost revenue. The cost to the state in jeopardized reliability hasn’t been calculated, although Edison has started up mothballed gas capacity to fill the supply gap. There is no firm date for restart at the nuclear plant. In the meantime, the California Public Utilities Commission is planning a formal investigation of the outage and Edison’s response, but recently decided to delay that until the utility files a legally-required report with the CPUC November 1. CPUC President Mike Peevey is a former executive with the Los Angeles-based utility.

### No Communication Breakdowns 1NC

#### -- \*60 years and hundreds of incidents prove we’re right – accidental war is extremely unlikely

**Quinlan 9** (Sir Michael, Consulting Senior Fellow – International Institute for Strategic Studies and Former Permanent Under-Secretary of State – UK Ministry of Defense, Thinking About Nuclear Weapons: Principles, Problems, Prospects, p. 63-69)

Even if initial nuclear use did not quickly end the fighting, the supposition of inexorable momentum in a developing exchange, with each side rushing to overreaction amid confusion and uncertainty, is **implausible**. It fails to consider what the situation of the decision-makers would really be. Neither side could want escalation. Both would be appalled at what was going on. Both would be desperately looking for signs that the other was ready to call a halt. Both, given the capacity for evasion or concealment which drive modern delivery platforms and vehicles can possess, could have in reserve significant forces invulnerable enough not to entail use-or-lose pressures. (It may be more open to question, as noted earlier, whether newer nuclear weapon possessors can be immediately in that position; but it is within reach of any substantial state with advanced technological capabilities and attaining it is certain to be a high priority in the development of forces.) As a result, neither side can have any predisposition to suppose, in an ambiguous situation of fearful risk, that the right course when in doubt is to go on copiously launching weapons. And none of this analysis rests on any presumption of highly subtle or pre-concerted rationality. The rationality required is plain. The argument is reinforced if we consider the possible reasoning of an aggressor at a more dispassionate level. Any substantial nuclear armoury can inflict destruction outweighing any possible prize that aggression could hope to seize. A state attacking the possessor of such an armoury must therefore be doing so (once given that it cannot count upon destroying the armoury pre-emptively) on a judgment that the possessor would be found lacking in the will to use it. If the attacker possessor used nuclear weapons, whether first or in response to the aggressor’s own first use, this judgment would begin to look dangerously precarious. There must be at least a substantial probability of the aggressor leaders’ concluding that their initial judgment had been mistaken—that the risks were after all greater than whatever prize they had been seeking, and that for their own country’s survival they must call off the aggression. Deterrence planning such as that of NATO was directed in the first place to preventing the initial misjudgment and in the second, if it were nevertheless made, to compelling such a reappraisal. The former aim had to have primacy, because it could not be taken for granted that the latter was certain to work. But there was no ground for assuming in advance, for all possible scenarios, that the chance of its working must be negligible. An aggressor state would itself be at huge risk if nuclear war developed, as its leaders would know. It may be argued that a policy which abandons hope of physically defeating the enemy and simply hopes to get him to desist is pure gamble, a matter of who blinks first; and that the political and moral nature of most likely aggressors, almost ex hypothesi, makes them less likely to blink. One response to this is to ask what is the alternative—it can be only surrender. But a more hopeful answer lies in the fact that the criticism is posed in a political vacuum. Real-life conflict would have a political context. The context which concerned NATO during the Cold War, for example, was one of defending vital interests against a postulated aggressor whose own vital interests would not be engaged or would be less engaged. Certainty is not possible, but a clear asymmetry of vital interest is a legitimate basis for expecting an asymmetry, credible to both sides, of resolve in conflict. That places upon statesmen, as page 23 has noted, the key task in deterrence of building up in advance a clear and shared grasp of where limits lie. That was plainly achieved in cold-war Europe. If vital interests have been defused in a way that is clear, and also clearly not overlapping or incompatible with those of the adversary; a credible basis has been laid for the likelihood of greater resolve in resistance. It was also sometimes suggested by critics that whatever might be indicated by theoretical discussion of political will and interests, the military environment of nuclear warfare —particularly difficulties of communication and control—would drive escalation with overwhelming probability to the limit. But it is obscure why matters should be regarded as inevitably so for every possible level and setting of action. Even if the history of war suggested (as it scarcely does) that military decision-makers are mostly apt to work on the principle ‘When in doubt, lash out’, the nuclear revolution creates an utterly new situation. The pervasive reality, always plain to both sides during the cold war, is ‘if this goes on to the end, we are all ruined’. Given that inexorable escalation would mean catastrophe for both, it would be perverse to suppose them permanently incapable of framing arrangements which avoid it. As page 16 has noted, NATO gave its military commanders no widespread delegated authority, in peace or war, to launch nuclear weapons without specific political direction. Many types of weapon moreover had physical safeguards such as PALS incorporated to reinforce organizational ones. There were multiple communication and control systems for passing information, orders, and prohibitions. Such systems could not be totally guaranteed against disruption if at a fairly intense level at strategic exchange—which was only one of many possible levels of conflict— an adversary judged it to be in his interest to weaken political control. It was far from clear why he necessarily should so judge. Even then, however, it remained possible to operate on a general tail-safe presumption: no authorization, no use. That was the basis on which NATO operated. If it is feared that the arrangements which a nuclear-weapon possessor has in place do not meet such standards in some respects, the logical course is to continue to improve them rather than to assume escalation to be certain and uncontrollable, with all the enormous inferences that would have to flow from such an assumption. The likelihood of escalation can never be 100 per cent, and never zero. Where between those two extremes it may lie can never be precisely calculable in advance; and even were it so calculable, it would not be uniquely fixed—it would stand to vary hugely with circumstances. That there should be any risk at all of escalation to widespread nuclear war must be deeply disturbing, and decision-makers would always have to weigh it most anxiously. But a pair of key truths about it need to be recognized. The first is that the risk of escalation to large-scale nuclear war is inescapably present in any significant armed conflict between nuclear-capable powers, whoever may have started the conflict and whoever may first have used any particular category of weapon. The initiator of the conflict will always have physically available to him options for applying more force if he meets effective resistance. If the risk of escalation, whatever its degree of probability, is to be regarded as absolutely unacceptable, the necessary inference is that a state attacked by a substantial nuclear power must forgo military resistance. It must surrender, even if it has a nuclear armory of its own. But the companion truth is that, as page 47 has noted, the risk of escalation is an inescapable burden also upon the aggressor. The exploitation of that burden is the crucial route, if conflict does break out, for managing it to a tolerable outcome—the only route, indeed, intermediate between surrender and holocaust, and so the necessary basis for deterrence beforehand. The working nut of plans to exploit escalation risk most effectively in deterring potential aggression entails further and complex issues. It is for example plainly desirable, wherever geography, politics, and available resources so permit without triggering arms races, to make provisions and dispositions that are likely to place the onus of making the bigger and more evidently dangerous steps in escalation upon the aggressor who wishes to maintain his attack, rather than upon the defender. The customary shorthand fur this desirable posture used to be ‘escalation dominance’.) These issues are not further discussed here. But addressing them needs to start from acknowledgement that there are in any event no certainties or absolutes available, no options guaranteed to be risk-free and cost-free. Deterrence is not possible without escalation risk; and its presence can point to no automatic policy conclusion save for those who espouse outright pacifism and accept its consequences. Accident and Miscalculation Ensuring the safety and security of nuclear weapons plainly needs to be taken most seriously. Detailed information is understandably not published, but such direct evidence as there is suggests that it always has been so taken in every possessor state, with the inevitable occasional failures to follow strict procedures dealt with rigorously. Critics have nevertheless from time to time argued that the possibility of accident involving nuclear weapons is so substantial that it must weigh heavily in the entire evaluation of whether war-prevention structures entailing their existence should be tolerated at all. Two sorts of scenario are usually in question. The first is that of a single grave event involving an unintended nuclear explosion—a technical disaster at a storage site, for example, or the accidental or unauthorized launch of a delivery system with a live nuclear warhead. The second is that of some event—perhaps such an explosion or launch, or some other mishap such as malfunction or misinterpretation of radar signals or computer systems—initiating a sequence of response and counter-response that culminated in a nuclear exchange which no one had truly intended. No event that is physically possible can be said to be of absolutely zero probability (just as at an opposite extremer it is absurd to claim, as has been heard from distinguished figures, that nuclear-weapon use can be guaranteed to happen within some finite future span despite not having happened for over sixty years.) But human affairs cannot be managed to the standard of either zero or total probability. We have to assess levels between those theoretical limits and weigh the reality and implications against other factors, in security planning as in everyday life There have certainly been, across the decades since 1945, many known accidents involving nuclear weapons, from transporters skidding off roads to bomber aircraft crashing with or accidentally dropping the weapons they carried (in past days when such carriage was a frequent feature of readiness arrangements it no longer is). A few of these accidents may have released into the nearby environment highly toxic material. None however has entailed a nuclear detonation. Some commentators suggest that this reflects bizarrely good fortune amid such massive activity and deployment over so many years. A **more rational deduction** from the facts of this long experience would however be that the probability of any accident triggering a nuclear explosion is **extremely low**. It might be further nested that the mechanisms needed to set of such an explosion are technically demanding, and that in a large number of ways the past sixty years have seen extensive improvements in safety arrangements for both the design and the handling of weapons. It is undoubtedly possible to see respects in which, after the cold war, some of the factors bearing upon risk may be new or more adverse; but some are now plainly less so. The years which the world has come through entirely without accidental or unauthorized detonation have included early decades in which knowledge was sketchier, precautions were less developed, and weapon designs were less ultra-safe than they later became, as well as substantial periods in which weapon numbers were larger, deployments immure widespread arid diverse, movements more frequent, and several aspects of doctrine and readiness arrangements more tense. Similar considerations apply to the hypothesis of nuclear war being mistakenly triggered by false alarm. Critics again point to the fact, as it is understood, of numerous occasions when initial steps in alert sequences for US nuclear forces were embarked upon, or at least called for, by indicators mistaken or misconstrued. In none of these instances, it is accepted, did matters get **at all near** to nuclear launch—extraordinary good fortune again, critics have suggested. But the rival and more logical inference from hundreds of events stretching over sixty years of experience presents itself once more: that the probability of initial misinterpretation leading far towards mistaken launch is remote. § Marked 09:02 § Precisely because any nuclear weapon processor recognizes the vast gravity of any launch, release sequences have many steps, and human decision is repeatedly interposed as well as capping the sequences. To convey that because a first step was prompted the world somehow came close to accidental nuclear war is **wild hyperbole**, rather like asserting, when a tennis champion has lost his opening service game, that he was nearly beaten in straight sets. **History** anyway **scarcely offers any ready example** of major war started by accident even before the nuclear revolution imposed an **order-of-magnitude increase of caution**. In was occasion conjectured that nuclear war might be triggered by the real but accidental or unauthorized launch of a strategic nuclear-weapon delivery system in the direction of a potential adversary. No such launch is known to have occurred in over sixty years. The probability of it is therefore very low. But even if it did happen, the further hypothesis of it initiating a general nuclear exchange is far-fetched. It fails to consider the real situation of decision-makers, as pages 63-4 have brought out. The notion that cosmic holocaust might be mistakenly precipitated in this way **belongs to science fiction**.

# 1NR

### Water Wars D

#### -- No water wars

Victor 7 (David G., Professor of Law – Stanford Law School and Director – Program on Energy and Sustainable Development, “What Resource Wars?”, The National Interest, 11-12, http://www.nationalinterest.org/Article.aspx?id=16020)

While there are many reasons to fear global warming, the risk that such dangers could cause violent conflict ranks extremely low on the list because it is highly unlikely to materialize. Despite decades of warnings about water wars, what is striking is that **water wars don't happen**-usually because countries that share water resources have a lot more at stake and armed conflict rarely fixes the problem. Some analysts have pointed to conflicts over resources, including water and valuable land, as a cause in the Rwandan genocide, for example. Recently, the UN secretary-general suggested that climate change was already exacerbating the conflicts in Sudan. But none of these supposed causal chains stay linked under close scrutiny-the conflicts over resources are usually symptomatic of deeper failures in governance and other primal forces for conflicts, such as ethnic tensions, income inequalities and other unsettled grievances. Climate is just one of many factors that contribute to tension. The same is true for scenarios of climate refugees, where the moniker "climate" conveniently obscures the deeper causal forces.

### Central Asian War D

#### -- No great power escalation

Weitz 6 (Richard, Senior Fellow and Associate Director of the Center for Future Security Strategies – Hudson Institute, “Averting a New Great Game in Central Asia”, Washington Quarterly, 29(3), Summer, Lexis)

Concerns about a renewed great game are thus exaggerated. The contest for influence in the region does not directly challenge the vital national interests of China, Russia, or the United States, the most important extraregional countries in Central Asian security affairs. Unless restrained, however, competitive pressures risk impeding opportunities for beneficial cooperation among these countries. The three external great powers have incentives to compete for local allies, energy resources, and military advantage, but they also share substantial interests, especially in reducing terrorism and drug trafficking. If properly aligned, the major multilateral security organizations active in Central Asia could provide opportunities for cooperative diplomacy in a region where bilateral ties traditionally have predominated.

### Oil Shocks D

#### Shocks are temporary – no economic impact

Layne 6 (Christopher, Associate Professor of International Affairs – Texas A&M University, The Peace of Illusions: American Grand Strategy from 1940 to the Present, p. 178-179)

Domestic instability in a major oil-producing state is another threat to U.S. interests in the Gulf. In the form of civil unrest, instability could temporarily reduce the flow of oil from an affected country and drive up prices. However, because the oil industry is **globally integrated**, other oil producers would increase their own production to make up for the lost capacity. Thus, any spike in oil prices would be **temporary**, and lost supplies would be **replenished** by other producers. In fact, past experience shows that this is precisely what happens when internal instability in an oil-producing state causes a temporary disruption in oil supplies.63 Instability in any of the Gulf oil producers, of course, could bring a hostile regime to power. Here, there are two things to keep in mind. First, it is unlikely that U.S. military intervention could forestall such an event, and indeed it might make things worse. Second, the economic consequences of such an event are exaggerated. In an integrated, global oil market it is immaterial whether a hostile regime would sell oil directly to the United States. Because oil is fungible, all that matters is that such a regime make its oil available to the market. The chances of a hostile regime embargoing its oil are very low. All the major oil producers in the Gulf are economically dependent on their oil revenues. Even if a hostile regime in the Gulf wanted to embargo oil shipments to the United States or the West, it could not long do so without shooting itself in the foot economically. Moreover, if a hostile regime chose to behave in an economically irrational fashion by sacrificing income to achieve political or economic objectives, **markets would adjust**. Higher oil prices caused by an embargo would lead oil-consuming states like the United States to switch to alternative energy sources and use energy more efficiently, and also provide an incentive for other oil-producing states to increase the supply of oil in the market.64 Simply put, in relatively short order the supply-demand equilibrium would return to the marketplace, and oil prices would return to their natural marketplace level.

#### -- Global spare capacity is huge – zero risk of serious shortages

Gholz and Press 8 (Eugene, Professor of Public Affairs – University of Texas at Austin, and Daryl G., Professor of Government – Dartmouth College, “All the Oil We Need”, The New York Times, 8-21, Lexis)

WHILE oil prices have declined somewhat of late, the volatility of the market and the political and religious unrest in major oil-producing countries has Americans worrying more than ever about energy security. But they have little to fear -- contrary to common understanding, there are **robust stockpiles** of oil around the globe that could see us through **any foreseeable calamities** on the world market. True, trouble for the world's energy supplies could come from many directions. Hurricanes and other natural disasters could suddenly disrupt oil production or transportation. Iran loudly and regularly proclaims that it can block oil exports from the Persian Gulf. The anti-American rhetoric of President Hugo Chavez of Venezuela raises fears of an export cutoff there. And ongoing civil unrest wreaks havoc with Nigeria's output. Even worse, this uncertainty comes in the context of worrisome reports that oil producers have little spare capacity, meaning that they could not quickly ramp up production to compensate for a disruption. But such fears rest on a misunderstanding. The world actually has **enormous spare oil capacity**. It has simply moved. In the past, major oil producers like Saudi Arabia controlled it. But for years the world's major consumers have bought extra oil to fill their emergency petroleum reserves. Moreover, whereas the world's reserve supply once sat in relatively inaccessible pools, much of it now sits in easily accessible salt caverns and storage tanks. And consumers control the spigots. During a supply disruption, Americans would no longer have to rely on the good will of foreign governments. The United States alone has just more than 700 million barrels of crude oil in its Strategic Petroleum Reserve. Government stockpiles in Europe add nearly another 200 million barrels of crude and more than 200 million barrels of refined products. In Asia, American allies hold another 400 million barrels. And China is creating a reserve that should reach more than 100 million barrels by 2010. Those figures only count the government-controlled stocks. Private inventories fluctuate with market conditions, but American commercial inventories alone include well over a billion barrels. Adding up commercial and government stockpiles, the major consuming countries around the world control more than **four billion** barrels. Some policy makers and analysts worry that these emergency stocks are too small. For example, they sometimes compare the American strategic reserve to total American consumption, so the reserves appear dangerously inadequate. The United States consumes about 20 million barrels of oil every day, so the Strategic Petroleum Reserve could only supply the country for 35 days. (Furthermore, the United States could not draw oil out of the reserve at anything approaching a rate of 20 million barrels per day.) This is why President Bush in his 2007 State of the Union address called for doubling the strategic reserve. But this vulnerability is a mirage. The size of plausible disruptions, not total consumption, determines the adequacy of global reserves. The worst oil disruptions in history deprived global markets of five million to six million barrels per day. Specifically, the collapse of the Iranian oil industry during the revolution in 1978 cut production by nearly five million barrels a day, and the sanctions on Iraq after its conquest of Kuwait in 1990 eliminated 5.3 million barrels of supply. If a future disruption were as bad as history's worst, American and allied governments' crude oil stocks alone could replace **every lost barrel** for **eight** **months**.

### Space Exploration D

#### -- Exploration impossible – no tech

Clark 00 (Greg, Staff Reporter – Space.com, “Will Nuclear Power Put Humans on Mars?”, Space.com, 5-21,

<http://www.space.com/scienceastronomy/solarsystem/nuclearmars_000521.html>)

When it comes to attracting interest in new mission plans to far-out places in the solar system, it is often the wildly futuristic concepts that get the attention. Antimatter propulsion, solar and magnetic sails all make great stories, but such futuristic concepts **don't do anything** to get humans out to the moon, or Mars, or to various local comets or asteroids within the **foreseeable futur**e. With these futuristic technologies barely out of their conceptual phases, practical use of such far-out concepts for human space transportation is **decades away at best**.

#### -- Humans can’t survive in space

Kruerger 8 (Curtis, “Dangers of Space”, St. Petersburg Times, 2-18, Lexis)

An undisclosed medical problem forced German astronaut Hans Schlegel to miss his first planned space walk last week. But Schlegel was lucky. He recovered in time for Wednesday's excursion outside the space station to help swap out a cooling system. It could be a much different picture for astronauts who travel to Mars, a treacherous 30-million-mile journey that NASA has begun to plan. The trip there would take half a year. Along the way, astronaut's bones would shrink 1.5 percent each month, making them more fragile. Their bodies would be exposed to radiation that could damage their DNA or cause cancer. Their hearts would weaken from the months of pumping blood inside a weightless body. Space travel could tear down their minds, as well as their bodies. Imagine stepping outside the space shuttle, staring back at Earth. Unlike Apollo astronauts who stood on the moon, Earth would not look like a giant, swirling-blue globe. It would look like one of the stars. "I think going to Mars and looking back to Earth and seeing Earth as a bluish star, that's got to have some impact on you, as to how remote you are," said Don Thomas, a former NASA astronaut who traveled to space four times. All these dangers show the challenges of NASA's plan for the future, which is to develop a spacecraft that would take Americans back to the moon as soon as 2018, and eventually on to Mars.

#### -- Long time-frame

Britt 1 (Robert Roy, “Survival of the Elitist: Bioterrorism May Spur Space Colonies”, Space.com, 10-30,

[www.space.com/scienceastronomy/generalscience/colonize\_now\_011030-1.html](http://www.space.com/scienceastronomy/generalscience/colonize_now_011030-1.html))

Whether opportunity or fear will eventually push us off the pale blue dot that has been home to hominids for more than a million years, no one is going anywhere anytime soon. At least not on a permanent basis. Even Tumlinson, the director of FINDS and arguably the most energetic and productive proponent of space settlement, expects the whole process to take a **generation**. Sure, the first tourist has already flown. Others may soon follow. Mars could conceivably be visited in a **decade or two**.

#### -- Energy requirements block colonization

Stross 7 (Charlie, Author Specializing in Technically Accurate Sci-Fi, “The High Frontier, Redux”, 6-16,

http://www.antipope.org/charlie/blog-static/2007/06/the\_high\_frontier\_redux.html)

To put this figure in perspective, the total conversion of one kilogram of mass into energy yields 9 x 1016 Joules. (Which one of my sources informs me, is about equivalent to 21.6 megatons in thermonuclear explosive yield). So we require the equivalent energy output to 400 megatons of nuclear armageddon in order to move a capsule of about the gross weight of a fully loaded Volvo V70 automobile to Proxima Centauri in less than a human lifetime. That's the same as the yield of the entire US Minuteman III ICBM force. For a less explosive reference point, our entire planetary economy runs on roughly 4 terawatts of electricity (4 x 1012 watts). So it would take our total planetary electricity production for a period of half a million seconds — roughly 5 days — to supply the necessary va-va-voom. But to bring this back to earth with a bump, let me just remind you that this probe is so implausibly efficient that it's veering back into "magic wand" territory. I've tap-danced past a 100% efficient power transmission system capable of operating across interstellar distances with pinpoint precision and no conversion losses, and that allows the spacecraft on the receiving end to convert power directly into momentum. This is not exactly like any power transmission system that anyone's built to this date, and I'm not sure I can see where it's coming from.

#### -- No suitable planets for colonization

Robertson 6 (Donald F., Freelance Space Journalist, “Space Exploration”, Space News, 3-6,

http://www.space.com/spacenews/archive06/RobertsonOpEd\_030606.html)

Two largely unquestioned assumptions long ago took root within the space community. As we prepare to voyage back to Earth's Moon and on to Mars, it is time to question them both. The first assumption is that exploring the Moon, Mars, or any part of the solar system, can be accomplished in a generation or two and with limited loss of life. The second is that we can use robots to successfully understand another world. Both assumptions are almost certainly wrong, yet many important elements of our civil space program are based on one or both of them being correct. To paraphrase Douglas Adams, even within the space community most people don't have a clue how "mind-boggingly big space really is." Most of the major worlds in the solar system have surface areas at least as large as terrestrial continents -- a few are much larger -- and every one of them is **unremittingly hostile** to human life. Learning to travel confidently through former President John F. Kennedy's "this new ocean" will be difficult, expensive, time-consuming and dangerous. Mr. Kennedy's rhetoric was more accurate than he probably knew. The only remotely comparable task humanity has faced was learning to travel across our world's oceans. We take trans-oceanic travel for granted, but getting from Neolithic boats to modern freighters cost humanity well over 10,000 years of hard work and uncounted lives. Even today, hundreds of people die in shipping accidents every year. We and our woefully inadequate chemical rockets are like Stone Age tribesfolk preparing to cast off in canoes, reaching for barely visible islands over a freezing, storm-tossed, North Atlantic.

### 1NC North Korea Prolif Good – Regime Collapse

#### Prolif checks North Korean collapse.

**Korea Herald ‘9** (Henry Shinn, “Beijing not ready for policy shift on N.K.”, 6-26, L/N)

For North Korea, internal security (stability of the regime) and external security (national security) are of equal importance. For the time being, North Korea believes that a nuclearized North Korea is safer than a nuclear-free Iraq under Saddam Hussein. Nuclear weapons can serve both as an ultimate goal to deter American military strikes and to turn North Korea into a "big power." It is also a way to consolidate its regime and maintain its security by seeking more economic aid and diplomatic compensation. Besides, North Korea can take nuclear weapons as additional cards when it returns to the table of the six-party talks, thus exerting better control over the process.

#### Collapse causes regional instability.

**Green ‘9** (Michael, Senior Advisor and Japan Chair – CSIS and Associate Prof. IR – Georgetown U. and former Dir. Asian Affairs – National Security Council, The National Interest, “The Perilous Case of Kim Jong Il”, September/October, L/N)

The problem now is among the powers within Northeast Asia. Historically, Korean power vacuums have drawn the other powers into major wars (the 1894 Sino-Japanese War, the 1904 Russo-Japanese War and the 1950 Korean War). Sino-Japanese rivalry has become a feature of Asia’s geostrategic landscape over the past decade in spite of growing economic interdependence. South Koreans have moved from being deeply distrustful of U.S. intentions on unification to being even more suspicious of Chinese goals. Five years ago, when Beijing began claiming that the historic kingdom of Koguryo (in what is now North Korea) was Chinese and not Korean, South Korean nationalism was inflamed. In surveys, South Koreans now list China as the greatest threat to peace in Asia. The Lee Myung-bak government’s efforts to discuss contingency planning and unification were rebuffed by Beijing this year, prompting rumors among mainstream academics and officials in Seoul that China has a secret successor North Korean government assembled and ready. Given that South Korea’s planning assumption is that Seoul will assert authority over North Korean territory in the event of regime collapse and the likelihood that hundreds of thousands of South Korean troops would take the lead in stabilizing the North with support from the United States, China’s ambiguous and almost-hostile stance toward unification could lead to dangerous collisions and longer-term instability in Northeast Asia.

#### Nuclear North Korea serves as a deterrent – won’t invade

**Waltz ‘95** (Kenneth, Prof. Emeritus of Pol. Sci – UC Berkeley, “The Spread of Nuclear Weapons: A Debate”, p. 38-39)

Despite North Korea's weakness, some people, Americans especially, worry that the North might invade the South, even using nuclear weapons in doing so. How concerned should we be? No one has figured out how to use nuclear weapons except for deterrence. Is a small and weak state likely to be the first to do so? Countries that use nuclear weapons have to fear retalition. Why would the North now invade the South? It did in 1950 only after prominent American congressmen, military leaders, and other officials said that we would not fight in Korea. Any war on the peninsula would put North Korea at severe risk. Perhaps because South Koreans appreciate this fact more keenly than Americans do, relatively few of them seem to believe that North Korea will invade. Kim Il Sung threatened war, but anyone who thinks that when a dictator threatens war we should believe him is lost wandering around somewhere in a bygone conventional world." Kim Il Sung was sometimes compared with Hitler and Stalin." Despite similarities, it is foolish to forget that North Korea's capabilities in no way compare with the Germany of Hitler or the Soviet Union of Stalin. Nuclear weapons make states more cautious, as the history of the nuclear age shows. "Rogue states," as the Soviet Union and China were once thought to be, have followed the pattern. The weaker and the more endangered a state is, the less likely it is to engage in reckless behavior. North Korea's external behavior has sometimes been ugly, but certainly not reckless. Its regime has shown no inclination to risk suicide. This is one good reason why surrounding states counsel patience.

#### That outweighs – evidence indicates it causes runaway warming and resource shortages – so it turns their water wars advantage

#### Also we will concede that SMR’s are prolif resistant – we will concede that SMR’s are commericialized and used globally as of the water wars advantage –

#### SMRs are prolif resistant – multiple features

Kuznetsov 8 – former Lead Researcher at the Kurchatov Institute (Russia) (Vladimir, March-August. “Options for small and medium sized reactors (SMRs) to overcome loss of economies of scale and incorporate increased proliferation resistance and energy security” Progress in Nuclear Energ Vol 50 issues 2-6, p 248. ScienceDirect)

For many less developed countries, these are the features of enhanced proliferation resistance and increased robustness of barriers for sabotage protection that may ensure the progress of nuclear power. All NPPs with innovative SMRs will provide for the implementation of the established safeguards veriﬁcation procedures under the agreements of member states with the IAEA. In addition to this, many innovative SMRs offer certain intrinsic proliferation resistance features to prevent the misuse, diversion or undeclared production of ﬁssile materials and/or to facilitate the implementation of safeguards (IAEA, 2006b). For example, many of water-cooled SMRs employ low enrichment uranium and once-through fuel cycle as basic options. Therefore, the features contributing to proliferation resistance of such SMRs are essentially similar to that of presently operated PWRs and BWRs. They also include an unattractive isotopic composition of the plutonium in the discharged fuel, and radiation barriers provided by the spent fuel. The intrinsic proliferation resistance features common to all HTGRs include high fuel burn-up (low residual inventory of plutonium, high content of 240 Pu); a difﬁcult to process fuel matrix; radiation barriers; and a low ratio of ﬁssile to fuelblock/fuel-pebble mass. Although several HTGRs make a provision for reprocessing of the TRISO fuel, the corresponding technology has not been established yet and, until such time as when the technology becomes readily available, the lack of the technology is assumed to provide an enhanced proliferation resistance. All liquid metal cooled SMRs are fast reactors that can ensure a self-sustainable operation on ﬁssile materials or realize fuel breeding to feed other reactors present in nuclear energy systems. In both cases, and if the fuel cycle is closed, the need of fuel enrichment and relevant uranium enrichment facilities would be eliminated, which is a factor contributing to enhanced proliferation resistance. Other features to enhance proliferation resistance of fast reactors are the following: No separation of plutonium and uranium at any fuel cycle stage and leaving a small (1e2% by weight) fraction of ﬁssion products permanently in the fuel; Denaturing of the ﬁssile materials, e.g., through the optimization of the core design to achieve a higher content of 238 Pu in the plutonium, to preclude the possibility of weapon production via securing an inadmissibly high level of residual heat of the plutonium fuel e the 238 Pu/Pu ratio needed to achieve this still needs to be deﬁned adequately.

### Prolif Good

#### Proliferation does not escalate to war. It de-escalates conflicts

**Tepperman**, 9/7/**2009** (John - journalist based in New York Cuty, Why obama should learn to love the bomb, Newsweek, p.lexis)

**A growing and compelling body of research** suggests that nuclear weapons may not, in fact, make the world more dangerous, as Obama and most people assume. The bomb may actually make us safer. In this era of rogue states and transnational terrorists, that idea sounds so obviously wrongheaded that few politicians or policymakers are willing to entertain it. But that's a mistake. Knowing the truth about nukes would have a profound impact on government policy. Obama's idealistic campaign, so out of character for a pragmatic administration, may be unlikely to get far (past presidents have tried and failed). But it's not even clear he should make the effort. There are more important measures the U.S. government can and should take to make the real world safer, and these mustn't be ignored in the name of a dreamy ideal (a nuke-free planet) that's both unrealistic and possibly undesirable. The argument that nuclear weapons can be agents of peace as well as destruction rests on two deceptively simple observations. First, nuclear weapons have not been used since 1945. Second, there's never been a nuclear, or even a nonnuclear, war between two states that possess them. Just stop for a second and think about that: it's hard to overstate how remarkable it is, especially given the singular viciousness of the 20th century. As Kenneth Waltz, the leading "nuclear optimist" and a professor emeritus of political science at UC Berkeley puts it, "We now have 64 years of experience since Hiroshima. It's striking and against all historical precedent that for that substantial period, there has not been any war among nuclear states." To understand why--and why the next 64 years are likely to play out the same way--you need to start by recognizing that all states are **rational on some basic level**. Their leaders may be stupid, petty, venal, even evil, but they tend to do things only when they're **pretty sure they can get away with them**. Take war: a country will start a fight only when it's almost certain it can get what it wants at an acceptable price. **Not even Hitler or Saddam** waged wars they didn't think they could win. The problem historically has been that leaders often make the **wrong gamble and underestimate** the other side--and millions of innocents pay the price. Nuclear weapons change all that by making the costs of war **obvious**, inevitable, **and unacceptable**. Suddenly, when both sides have the ability to turn the other to ashes with the push of a button--and everybody knows it--the basic math shifts. Even the **craziest tin-pot dictator** is forced to accept that war with a nuclear state is **unwinnable** and thus not worth the effort. As Waltz puts it, "**Why fight if you can't win and might lose everything**?" Why indeed? The iron logic of deterrence and mutually assured destruction is so compelling, it's led to what's known as the nuclear peace: the virtually unprecedented stretch since the end of World War II in which all the world's major powers have avoided coming to blows. They did fight proxy wars, ranging from Korea to Vietnam to Angola to Latin America. But these never matched the furious destruction of full-on, great-power war (World War II alone was responsible for some 50 million to 70 million deaths). And since the end of the Cold War, such bloodshed has declined precipitously. Meanwhile, the nuclear powers have scrupulously avoided direct combat, and there's very good reason to think they always will. There have been some near misses, but a close look at these cases is fundamentally reassuring--because in each instance, very different **leaders all came to the same safe conclusion**. Take the mother of all nuclear standoffs: the Cuban missile crisis. For 13 days in October 1962, the United States and the Soviet Union each threatened the other with destruction. But both countries soon stepped back from the brink when they recognized that a war would have **meant curtains** for everyone. As important as the fact that they did is the reason why: Soviet leader Nikita Khrushchev's aide Fyodor Burlatsky said later on, "It is impossible to win a nuclear war, and both sides realized that, maybe for the first time." The record since then shows the same pattern repeating: nuclear-armed enemies slide toward war, **then pull back**, always for the same reasons. The best recent example is India and Pakistan, which fought three bloody wars after independence before acquiring their own nukes in 1998. Getting their hands on weapons of mass destruction didn't do anything to lessen their animosity. But it did **dramatically mellow their behavior**. Since acquiring atomic weapons, the two sides have never fought another war, **despite severe provocations** (like Pakistani-based terrorist attacks on India in 2001 and 2008). They have skirmished once. But during that flare-up, in Kashmir in 1999, both countries were careful to keep the fighting limited and to avoid threatening the other's vital interests. Sumit Ganguly, an Indiana University professor and coauthor of the forthcoming India, Pakistan, and the Bomb, has found that on both sides, officials' thinking was strikingly similar to that of the Russians and Americans in 1962. The prospect of war brought Delhi and Islamabad face to face with a nuclear holocaust, and leaders in each country did what they had to do to avoid it.

#### Proliferators are not aggressive – they care about the economy and regime survival

**Alagappa**, **2008** (Muthiah – distinguished senior fellow at the East-West Center, The Long Shadow, p. 508-509)

Another major conclusion of this study is that although nuclear weapons could have destabilizing consequences in certain situations, on net they have **reinforced national security and** regional **stability** in Asia. It is possible to argue that fledgling and small nuclear arsenals would be more vulnerable to preventive attacks; that the related strategic compulsion for early use may lead to early launch postures and crisis situations; that limited war under nuclear conditions to alter or restore the political status quo can intensify tensions and carry the risk of escalation to major war; that inadequate command, control, and safety measures could result in accidents; and that nuclear facilities and material may be vulnerable to terrorist attacks. These are legitimate concerns, but thus far nuclear weapons have not undermined national security and regional stability in Asia. Instead, they have **ameliorated national security concerns**, strengthened the status quo, **increased deterrence dominance**, prevented the outbreak of major wars, and reinforced the regional trend to reduce the salience of force in international politics. Nor have nuclear weapons had the predicted domino effect. These consequences have strengthened regional security and stability that rest on multiple pillars. The grim scenarios associated with nuclear weapons in Asia frequently rely on worst-case political and military situations; often they are seen in isolation from the national priorities of regional states that **emphasize economic development** and modernization through participation in regional and global economies and the high priority accorded to stability in domestic and international affairs. The primary goal of regional states is **not** aggrandizement through **military aggression** but preservation of national integrity, state or regime survival, economic growth and prosperity, increase in national power and international influence, preservation or incremental change in the status quo, and the construction of regional and global orders in which they are subjects rather than objects. Seen in this broader perspective, nuclear weapons and more generally military force are of **greater relevance in the defense, deterrence, and assurance roles than offensive ones**. This does not imply that offensive use of force or military clashes will not occur; only that force is not the first option, that military clashes will be infrequent, and that when they do occur they will be limited in scope and intensity. Security interaction in Asia increasingly approximates behavior associated with defensive realism.

#### No chain reactions – the domino effect never occurs

**Alagappa**, **2008** (Muthiah – distinguished senior fellow at the East-West Center, The Long Shadow, p. 521-522)

It will be useful at this juncture to address more directly the set of instability arguments advanced by certain policy makers and scholars: the domino effect of new nuclear weapon states, the probability of preventive action against new nuclear weapon states, and the compulsion of these states to use their small arsenals early for fear of losing them in a preventive or preemptive strike by a stronger nuclear adversary. On the domino effect, India's and Pakistan's nuclear weapon programs have not fueled new programs in South Asia or beyond. Iran's quest for nuclear weapons is not a reaction to the Indian or Pakistani programs. It is grounded in that country's security concerns about the United States and Tehran's regional aspirations. The North Korean test has evoked mixed reactions in Northeast Asia. Tokyo is certainly concerned; its reaction, though, has not been to initiate its own nuclear weapon program but to reaffirm and strengthen the American extended deterrence commitment to Japan. Even if the U.S. Japan security treaty were to weaken, it is not certain that Japan would embark on a nuclear weapon program. Likewise, South Korea has sought reaffirmation of the American extended deterrence commitment, but has firmly held to its nonnuclear posture. Without dramatic change in its political, economic, and security circumstances, South Korea is highly unlikely to embark on a covert (or overt) nuclear weapon program as it did in the 1970s. South Korea could still become a nuclear weapon state by inheriting the nuclear weapons of North Korea should the Kim Jong Il regime collapse. Whether it retains or gives up that capability will hinge on the security circumstances of a unified Korea. The North Korean nuclear test has not **spurred Taiwan or Mongolia to develop nuclear weapon capability**. The point is that each country's decision to embark on and sustain nuclear weapon programs is contingent on its particular security and other circumstances. **Though appealing, the domino theory is not predictive**; often it is employed to justify policy on the basis of **alarmist predictions**. The loss of South Vietnam, for example, did not lead to the predicted domino effect in Southeast Asia. In fact the so-called dominos became drivers of a vibrant Southeast Asia and brought about a fundamental transformation in that subregion (Lord 1993, 1996). In the nuclear arena, the nuclear programs of China, India, and Pakistan were part of a security chain reaction, not mechanically falling dominos. However, as observed earlier the Indian, Pakistani, and North Korean nuclear tests have thus far not had the domino effect predicted by alarmist analysts and policy makers. Great caution should be exercised in accepting at face value the sensational predictions of individuals who have a vested interest in **accentuating the dangers of nuclear proliferation**. Such analysts are now focused on the dangers of a nuclear Iran. A nuclear Iran may or may not have destabilizing effects. Such claims must be assessed on the basis of an objective reading of the drivers of national and regional security in Iran and the Middle East.

#### Conventional war outweighs nuclear war –

#### 1. Absent nuclear weapons, conventional war is more probable – it removes restraints on aggression

**Waltz**, **1981** (Kenneth – professor emeritus of political science at the University of California, Berkeley, The spread of nuclear weapons, Adelphi Papers, No. 171, p. http://www.mtholyoke.edu/acad/intrel/waltz1.htm)

A deterrent strategy promises less damage, should deterrence fail, than does the Schles­inger-Brown ‘countervailing’ strategy, a strat­egy which contemplates fighting a limited, strategic nuclear war. War-fighting strategies offer no clear place to stop short of victory for some and defeat for others. Deterrent strategies do, and that place is where one country threat­ens another’s vital interests. Deterrent strate­gies **lower the probability** that wars will be fought. If wars are nevertheless fought, deter­rent strategies lower the probability that they will become wars of high intensity. A war between the United States and the Soviet Union that did get out of control would be catastrophic. If they set out to destroy each other, they would greatly reduce the world’s store of developed resources while killing mil­lions outside of their own borders through fall­out. Even while destroying themselves, states with few weapons would do **less damage** to others. As ever, the biggest international dangers come from the strongest states. Fearing the world’s destruction, one may prefer a world of conventional great powers having a higher probability of fighting less destructive wars to a world of nuclear great powers having a lower probability of fighting more destructive wars. But that choice **effectively disappeared** with the production of atomic bombs by the United States during World War II. Since the great powers are **unlikely to be drawn into the nuclear wars** of others, the added global dangers posed by the spread of nuclear weapons are **small**.

#### 2. Magnitude – conventional wars are seven times more intense than World War Two

**Gabriel and Metz**, June **1992** (Richard - professor of political science at the U.S. Army War College, and Karen S. - research librarian at the University of Michigan Medical Center, A short history of war, p. http://www.au.af.mil/au/awc/awcgate/gabrmetz/gabr001f.htm)

In 1980 the U.S. Army estimated that modern non-nuclear conventional war had become 400 to **700 percent more lethal and intense** as it had been in World War II depending, of course, on the battle scenario. The increases in conventional killing power have been enormous, and far greater and more rapid than in any other period in man's history. The artillery firepower of a maneuver battalion, for example, has doubled since World War II while the "casualty effect" of modern artillery guns has increased 400 percent. Range has increased, on average, by 60 percent, and the "zone of destruction" of battalion artillery by 350 percent. Advances in metallurgy and the use of new chemical explosives has increased the explosive power of basic caliber artillery by many times. A single round from an 8-inch gun has the same explosive power as a World War II 250 pound bomb. Modern artillery is lighter, stronger, and more mobile than ever before. Computerized fire direction centers can range guns on target in only 15 seconds compared to 6 minutes required in World War II. The rates of fire of these guns are three times what they used to be. So durable are the new artillery guns that they can fire 500 rounds over a 4 hour period without incurring damage to the barrel. Range has increased to the point where the M-110 gun can fire a 203 millimeter shell 25 miles. The self-propelled gun has a travel range of 220 miles at a speed of 35 miles per hour. Area saturation artillery, in its infancy in World War II, has become very lethal. A single Soviet artillery battalion firing 18 BM-21 rocket launchers can place 35 tons of explosive rockets on a target 17 miles away in just 30 seconds. The American Multiple Launch Rocket System (MLRS) is a totally mobile self-contained artillery system that can place 8,000 M-77 explosive rounds on a target the size of six football fields in less than 45 seconds. Air defense guns have developed to where a single M-163 Vulcan cannon can fire 3,000 rounds of explosive 20-millimeter shot per minute with almost 100 percent accuracy within 2 miles of the gun position. Modern antiaircraft guns command 36 times the airspace around their position as they did in World War II. Tanks have improved in speed, reliability, and firepower. Modern tanks can make 40 miles per hour over a 300 mile range, or three times that of earlier tanks. A tank equipped with modern gunsights and a cannon stabilization system has a probability of scoring a first round hit of 98 percent, 13 times greater than World War II tanks. Modern battletanks, unlike any earlier variety, can also fire while on the move. Their probability of hitting the target while moving is almost 10 times greater than the probability of a World War II tank firing from a stabilized position. New propellants and ammunition design have increased the lethality of the modern tank. During the Iraqi-U.S. war in 1991, Armor Piercing Discarding Sabot (APDS) rounds moving at 5,467 feet per second pierced 4 feet of sand in bunkered berms and still destroyed enemy tanks. Tank gunsights, lasers connected to computers, can locate a target in the dark, smoke, rain, or snow at 2,000 yards. The armed combat helicopter has produced a revolution in tank and armor killing power available to the combat commander. These weapons can be configured to kill either troops or tanks, and are truly awesome weapons. The Apache gunship carries 16 Hellfire antitank missiles that need only minimal further direction after they are fired to home in on the target. New sights allow the helicopter to acquire its target from more than 5 miles away. The helicopter has added new mobility and stealth to the battlefield permitting a division commander to strike with troops or antitank weapons 60 miles to his front, four times the range in World War II. The infantry, too, has increased its range, mobility, and firepower with new armored personnel carriers and infantry fighting vehicles. Infantry can also bring to bear shoulder-fired antiaircraft missiles and Jeep and Hummer mounted TOW antitank missiles with devastating results. The modern battlefield is a lethal place indeed. To place the increased intensity of the modern non-nuclear conventional battlefield in perspective, one need only remember that, in World War II, heavy combat was defined as 2-4 combat pulses a day. Modern combat divisions are configured to routinely deliver 12-14 combat pulses a day and to fight around the clock by night operations. A modern U.S. or Soviet motorized division can deliver three times as much firepower at 10 times the rate as each could in World War II. By these and any other historical (or human) standard, even conventional weapons have in a very real sense become **quite unconventional**.

#### If we win deterrence, that turns all of their impacts because it is a terminal conflict mitigator.

#### Conventional wars escalate to nuclear war

**Posen**, Fall **1982** (Barry R. - Ford International Professor of Political Science at MIT, Inadvertent nuclear war?, International Security, p. 28-29)

Could a major East-West conventional war be kept conventional? American policymakers increasingly seem to think so. Recent discussions of such a clash reflects belief that protracted conventional conflict is possible, if only the West fields sufficient conventional forces and acquires an adequate industrial mobilization base. indeed, the Reagan Administration has embraced the idea of preparing for a long conventional war, as evidenced by its concern with the mobilization potential of the American defense industry.1 Underlying this policy is the belief that the United States should be prepared to fight a war that, in duration and character, **resembles World War II**. American decision-makers seem confident of their ability to avoid nuclear escalation if they so desire. That confidence is **dangerous and unwarranted**. It fails to take into account that **intense conventional operations** may cause nuclear escalation by threatening or destroying strategic nuclear forces. The operational requirements (or preferences) for conducting a conventional war may thus **unleash enormous, and possibly uncontrollable, escalatory pressures** despite the desires of American or Soviet policymakers. Moreover, the potential sources of such escalation are deeply rooted in the nature of the force structures and military strategies of the superpowers, as well as in the technological and geographical circumstances of large-scale East-West conflict. If the escalatory pressures that could attend a major conventional war are to be prevented from driving decision-makers towards decisions they neither intend nor wish to make, those pressures must be recognized and guarded against by the leaders of both superpowers.2

#### Proliferation reduces the likelihood of nuclear war

**Asal and Beardsley**, **2007** (Victor – assistant professor of political science at SUNY Albany, and Kyle – assistant professor of political science at Emory, Proliferation and international crisis behavior, Journal of Peace Research, Vol. 44, No. 2, p. 142)

Other, more optimistic, scholars see benefits to nuclear proliferation or, perhaps not actively advocating the development of more nuclear weapons and nuclear-weapon states, see that the presence of nuclear weapons has at least been stabilizing in the past. For example, some scholars are confident of the promise of the ‘nuclear peace’.4 While those who oppose proliferation present a number of arguments, those who contend that nuclear weapons would **reduce interstate wars** are fairly consistent in focusing on one key argument: nuclear weapons make the risk of war **unacceptable for states**. As Waltz argues, the higher the stakes and the closer a country moves toward winning them, the more surely that country invites retaliation and risks its own destruction. States are not likely to run major risks for minor gains. War between nuclear states may escalate as the loser uses larger and larger warheads. Fearing that, states will want to draw back. Not escalation but **deescalation becomes likely**. War remains possible, but victory in war is too dangerous to fight for. (Sagan & Waltz, 2003: 6–7) ‘Nuclear war simply makes the risks of war much higher and shrinks the chance that a country will go to war’ (Snyder & Diesing, 1977: 450). Using similar logic, Bueno de Mesquita & Riker (1982) demonstrate formally that a world with almost universal membership in the **nuclear club will be much less likely to experience nuclear war** than a world with only a few members.

### Turns International Cooperation

#### Prolif causes international nuclear cooperation

**Roberts**, **1996** (Brad – research fellow at CSIS, Weapons proliferation and world order, p. 203-204)

Yet other regions demonstrate proliferation's potential impact in revolutionizing state relations. In South America, for example, the risks associated with the incipient nuclear competition between Argentina and Brazil led not to a stabilization of military competition at higher levels of potential destructiveness but an abandonment of that competition altogether and adoption of a regional nuclear cooperation mechanism. Similarly, in Africa and the South Pacific the specter of nuclear proliferation has led to major new diplomatic efforts to construct nuclear-weapons-free zones.

### 1NC Bioweapons Shift

#### Decrease in nuclear prolif causes a shift to bio-weapons

**Cordesman, 2K** (Anthony, Senior Fellow for Strategic Assessment – CSIS, Federal News Service, 3-28, L/N)

New, critical technologies are escaping our control One of the problems I have noticed in US government efforts to analyze proliferation is that they focus on past and current threats. As result, our studies tend to give primary weight to ballistic missiles and nuclear weapons. Advances in genetic engineering, biotechnology, medicine, pharmaceuticals, and food processing, however, are making it progressively easier to manufacture biological weapons **with nuclear lethalities**, to do so under breakout conditions, and do so with little or no warning of the precise nature of the threat. The engines and guidance systems needed for cruise missiles are becoming industrial devices like GPS, sensor-triggered fuses, cluster munitions, drones, crop sprayers, cellular phones interaction with the steady growth in global commerce, shipping, and labor migration to make covert and proxy attacks steadily more effective. Ironically, controlling ballistic missiles and nuclear weapons alone tends to simply push proliferation into other weapons systems and modes of delivery.

#### Extinction.

**Ochs ‘2** (Richard, Naturalist – Grand Teton National park with Masters in Natural Resource Management – Rutgers, “Biological Weapons must be abolished immediately” 6-9, <http://www.freefromterror.net/other_articles/abolish.html>)

Of all the weapons of mass destruction, the genetically engineered biological weapons, many without a known cure or vaccine, are an extreme danger to the continued **survival of life on earth.** Any perceived military value or deterrence pales in comparison to the great risk these weapons pose just sitting in vials in laboratories. While a "nuclear winter," resulting from a massive exchange of nuclear weapons, could also kill off most of life on earth and severely compromise the health of future generations, they are easier to control. Biological weapons, on the other hand, can get out of control very easily, as the recent anthrax attacks has demonstrated. There is no way to guarantee the security of these doomsday weapons because very tiny amounts can be stolen or accidentally released and then grow or be grown to horrendous proportions. The Black Death of the Middle Ages would be small in comparison to the potential damage bioweapons could cause. Abolition of chemical weapons is less of a priority because, while they can also kill millions of people outright, their persistence in the environment would be less than nuclear or biological agents or more localized. Hence, chemical weapons would have a lesser effect on future generations of innocent people and the natural environment. Like the Holocaust, once a localized chemical extermination is over, it is over. With nuclear and biological weapons, the killing will probably never end. Radioactive elements last tens of thousands of years and will keep causing cancers virtually forever. Potentially worse than that, bio-engineered agents by the hundreds with no known cure could wreck even greater calamity on the human race than could persistent radiation. AIDS and ebola viruses are just a small example of recently emerging plagues with no known cure or vaccine. Can we imagine hundreds of such plagues?