## \*\*\*1NC

### 1nc T Procurement

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

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

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

#### B. Vote negative

**1-Limits- our interpretation allows a fair number of financial mechanism – their interpretation allows rules and regulations like tariffs, net metering, and procurement which explodes the topic – that’s key to clash and manageable research**

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

### 1NC Nanotech CP

#### The Department of Defense in coordination with the National Institute of Standards of Technology should increase research and development for nanotechnology.

#### Tech investment is the only barrier—the plan sustains US leadership for another generation

Carafano 11 (James Jay Carafano, Ph.D., is Deputy Director of the Kathryn and Shelby Cullom Davis Institute for International Studies and Director of the Douglas and Sarah Allison Center for Foreign Policy Studies, a division of the Davis Institute, at The Heritage Foundation. “ Five Steps to Save America’s Defense Industrial Base” <http://www.heritage.org/research/reports/2011/06/5-steps-to-save-americas-defense-industrial-base>)

Pave the way for a defense nanotechnology industry. One of the most important advantages the U.S. could have is to be the world leader in nanotechnology manufacturing. “Nano” refers to scale—building materials and systems on the molecular and atomic levels. Nanotechnologies have almost infinite military applications for some of the most important challenges—from lightweight, super-strong materials to solving power generation problems. The U.S. government has a lot of nano-research. Now is the time to start thinking about an industrial base to operationalize what we are learning. In high-tech manufacturing, the main cost issue is tech investment, and decisions in this sector are sensitive to tax and regulatory policy. For starters, if federal policymakers lowered the cost of capital (reducing taxes on capital gains and dividends, as well as corporate income taxes), that would stimulate capital investment in a variety of promising technologies, particularly nanotechnology. Furthermore, the Pentagon, in coordination with the National Institute of Standards of Technology, should pivot right now to help foster the development of nanotechnology manufacturing infrastructure. That way, the Defense Department can incorporate innovations into its equipment quickly and cheaply as soon as the innovations emerge, and defense industries can develop new products to export. The Pentagon has done this before. In the 1980s, the Defense Advanced Research Projects Agency helped set up Sematech, a consortium of U.S. semiconductor companies to resolve common manufacturing challenges. The military should do the same for nanotechnology manufacturing. Funds should be reprioritized from other research and development efforts to support this mission. A lead in nanotechnology manufacturing could help cement America’s lead in defense exports and providing cutting-edge technology to the U.S. warfighter for another generation. Competition Builds Security By encouraging more industrial competition, Washington can play a more positive role in revitalizing the U.S. defense industrial base; boosting jobs and exports; building the capacity of friends and allies; lowering costs for Pentagon acquisition; and ensuring the nation becomes the arsenal of democracy again. That is an agenda worth fighting for.

### 1NC SMR CP

#### Text: The United States Federal Government should obtain electricity from small modular reactors for military bases in the United States.

#### DOD renewable initiatives fail---SMRs key to solve their advantages

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

In recent years, the U.S. Department of Defense (DOD) has become increasingly interested in the potential of small (less than 300 megawatts electric [MWe]) nuclear reactors for military use.1 DOD’s attention to small reactors stems mainly from two critical vulnerabilities it has identified in its infrastructure and operations: the dependence of U.S. military bases on the fragile civilian electrical grid, and the challenge of safely and reliably supplying energy to troops in forward operating locations. DOD has responded to these challenges with an array of initiatives on energy efficiency and renewable and alternative fuels. Unfortunately, even with massive investment and ingenuity, these initiatives will be insufficient to solve DOD’s reliance on the civilian grid or its need for convoys in forward areas. The purpose of this paper is to explore the prospects for addressing these critical vulnerabilities through small-scale nuclear plants.

#### Only SMR solve the grid – renewables fail

Charles Barton 11, founder of the Nuclear Green Revolution blog, MA in philosophy, “Future storm damage to the grid may carry unacceptable costs”, April 30, <http://nucleargreen.blogspot.com/2011_04_01_archive.html>

Amory Lovins has long argued that the traditional grid is vulnerable to this sort of damage. Lovins proposed a paradigm shift from centralized to distributed generation and from fossil fuels and nuclear power to renewable based micro-generation. Critics have pointed to flaws in Lovins model. Renewable generation systems are unreliable and their output varies from locality to locality, as well as from day to day, and hour to hour. In order to bring greater stability and predictability to the grid, electrical engineers have proposed expanding the electrical transmission system with thousands of new miles of transmission cables to be added to bring electricity from high wind and high sunshine areas, to consumers. This would lead, if anything, to greater grid vulnerability to storm damage in a high renewable penetration situation. Thus Lovins renewables/distributed generation model breaks down in the face of renewables limitations. Renewables penetration, will increase the distance between electrical generation facilities and customer homes and businesses, increasing the grid vulnerable to large scale damage, rather than enhancing reliability. Unfortunately Lovins failed to note that the distributed generation model actually worked much better with small nuclear power plants than with renewable generated electricity. Small nuclear plants could be located much closer to customer's homes, decreasing the probability of storm damage to transmission lines. At the very worst, small NPPs would stop the slide toward increased grid expansion. Small reactors have been proposed as electrical sources for isolated communities that are too remote for grid hookups. If the cost of small reactors can be lowered sufficiently it might be possible for many and perhaps even most communities to unhook from the grid while maintaining a reliable electrical supply. It is likely that electrical power will play an even more central role in a post-carbon energy era. Increased electrical dependency requires increased electrical reliability, and grid vulnerabilities limit electrical reliability. Storm damage can disrupt electrical service for days and even weeks. In a future, electricity dependent economy, grid damage can actually impede storm recovery efforts, making large scale grid damage semi-self perpetuating. Such grid unreliability becomes a threat to public health and safety. Thus grid reliability will be a more pressing future issue, than it has been. It is clear that renewable energy sources will worsen grid reliability, Some renewable advocates have suggested that the so called "smart grid" will prevent grid outages. Yet the grid will never be smart enough to repair its own damaged power lines. In addition the "smart grid" will be venerable to hackers, and would be a handy target to statures. A smart grid would be an easy target for a Stuxnet type virus attack. Not only does the "smart grid" not solve the problem posed by grid vulnerability to storm damage, but efficiency, another energy approach thought to be a panacea for electrical supply problems would be equally useless. Thus, decentralized electrical generation through the use of small nuclear power plants offers real potential for increasing electrical reliability, but successful use of renewable electrical generation approaches may worsen rather than improved grid reliability.

#### SMR expansion solves growth and manufacturing

MSCR 11 US Department of Commerce International Trade Administration Manufacturing and Services Competitiveness Report, February 2011, “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

A primary advantage of SMRs is in their production. Their small size means that they do not need the ultra-heavy forged components that currently can be made only by Japan Steel Works and Doosan Heavy Industries in South Korea.7 In most of the current U.S. SMR designs, the reactor pressure vessels and other large forgings could be supplied by domestic vendors, which would create U.S. jobs and potential exports of SMR components to international customers. In addition, most SMR designs allow for factory manufacturing, which could potentially provide opportunities for cost savings, for increased quality, and for more efficient production. Those attributes mean that SMRs could be a significant source of economic growth in the United States.

### 1NC China DA

China assuming leadership role in clean energy-exploiting weak US incentives policy

Bloomberg Business Week 4/11/12

http://www.businessweek.com/printer/articles/42246?type=bloomberg

U.S. government policies are creating a “boom-and-bust” in renewable energy investment, threaten a lead the nation regained over China for the technologies last year, the Pew Charitable Trusts said. U.S. investment reached $48.1 billion in 2011, largely in wind and solar power, the Washington-based research group said today in a report based on Bloomberg New Energy Finance data. Those funds trumped the $45.5 billion China allocated to renewables, for lead for the U.S. since 2008. The jump to the top of the G-20 ranking followed developers' efforts to finish projects before incentives expire. With China taking on long-term renewable energy targets and an American tax-break for wind lapsing in 2012, the U.S. again risks losing its edge, said Phyllis Cuttino, Pew’s clean energy director. “China is sending that important policy signal which the United States is failing to do to investors,” Cuttino said in an interview. “Even though China has fallen to number two, it seems as though investment there is going to continue at a very significant level for the foreseeable future. They are going to continue to be a dynamic clean-energy hub for the world.” The U.S. doesn’t have any comparable targets to China’s goals of installing a total of 160 gigawatts of wind power and 50 gigawatts of solar power by 2020, she said. At the same time, a production tax credit benefiting wind producers expires at the end of the year. That’s a threat to the wind industry and has prompted Vestas Wind Systems A/S (VWS), the world’s largest wind turbine maker, to say 1,600 U.S. factory jobs are at risk. Germany, Italy “In the absence of long-term policy, it’s hard to see how the U.S. can grow significantly in the future,” Cuttino said. “The boom-and-bust cycle of U.S. energy policy sends a very different signal to investors” from China. U.S. President Barack Obama took office three years ago pledging to generate jobs in the wind and solar industries. Since then, carbon cap-and-trade legislation has stalled and lawmakers have attacked assistance to renewables after solar manufacturer Solyndra LLC filed for bankruptcy in September. Globally, the installed capacity for renewable power now totals 565 gigawatts, 133 of it in China, 93 in the U.S. and 61 in Germany, according to today’s report. Cuttino said Pew had expected an increased deployment of renewables in 2011, with investment falling, and was surprised spending rose. “This sector is like the little engine that could -- it just keep growing somewhere, somehow,” she said. Germany ranked third for investment in clean energy in 2011, with $30.6 billion, followed by Italy on $28 billion, India on $10.2 billion and the U.K. with $9.4 billion, Pew said.

#### The plan spills over into broad commercial solar power—DOD is an engine for commercialization

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

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

Chinese lead in renewable energy markets key to economic growth strategy

CNET News 12/1/10 LaMonica

Ernst & Young: China clear leader in renewable energy

<http://news.cnet.com/8301-11128_3-20024232-54.html>

Driven by a surge in wind power installations, China is building on its lead in Ernst & Young's ranking of top renewable energy countries. Wind investment in China this quarter is nearly half of global spending, ensuring that one out of every two wind turbines to go live this year will be in China, according to consultants at Ernst & Young which does a quarterly "country attractiveness" index. The U.S. will see a jump in large solar installations before the end of year because developers are rushing to start projects before the end of the year. In place of a tax credit subsidy, renewable energy projects can now get a grant but that policy may not be renewed. Federal policy uncertainty and the financial markets have hurt the U.S. wind industry which is second in the global wind index. Low natural gas prices have also made solar and wind projects harder to finance. The Ernst & Young report noted that South Korea, which is a large consumer of energy, has risen significantly based on a national policy and well developed supply chain. Beyond solar and wind, China has elevated clean technology to a national strategic level, making it core to its future economic growth, said Ben Warren, the infrastructure advisory leader at Ernst & Young's UK Energy and Environmental, in a statement. "Since reaching top spot in our Index in September, China has opened up a healthy gap from other markets. Cleantech, including renewable energy, represents a significant part of the country's future economic growth plans," he said. "The Chinese solar industry is also fast becoming of great importance in the global market place." The report highlighting China's advances in renewable energy and green tech comes two days after Energy Secretary Steven Chu calling China's push into new energy technologies a "Sputnik moment" for the U.S. He said the U.S. needs to invest in clean energy research and development for economic reasons. As "significant" up-and-coming entrants in clean energy, the Ernst & Young report cites South Korea, Romania, Egypt, and Mexico for their energy technology programs.

#### Nuclear war with Russia

Sharavin 2001

Alexander Sharavin, Director of the Institute of Military and Political Analysis, WHAT THE PAPERS SAY, October 3, 2001, pg. online

China's economy is among the fastest-growing economies in the world. It remains socialistic in many aspects, i.e. extensive and highly expensive, demanding more and more natural resources. China's natural resources are rather limited, whereas the depths of Siberia and the Russian Far East are almost inexhaustible. Chinese propaganda has constantly been showing us skyscrapers in free trade zones in southeastern China. It should not be forgotten, however, that some 250 to 300 million people live there, i.e. at most a quarter of China's population. A billion Chinese people are still living in misery. For them, even the living standards of a backwater Russian town remain inaccessibly high. They have absolutely nothing to lose. There is every prerequisite for "the final throw to the north." The strength of the Chinese People's Liberation Army (CPLA) has been growing quicker than the Chinese economy. A decade ago the CPLA was equipped with inferior copies of Russian arms from late 1950s to the early 1960s. However, through its own efforts Russia has nearly managed to liquidate its most significant technological advantage. Thanks to our zeal, from antique MiG-21 fighters of the earliest modifications and S-75 air defense missile systems the Chinese antiaircraft defense forces have adopted Su-27 fighters and S-300 air defense missile systems. China's air defense forces have received Tor systems instead of anti-aircraft guns which could have been used during World War II. The shock air force of our "eastern brethren" will in the near future replace antique Tu-16 and Il-28 airplanes with Su-30 fighters, which are not yet available to the Russian Armed Forces! Russia may face the "wonderful" prospect of combating the Chinese army, which, if full mobilization is called, is comparable in size with Russia's entire population, which also has nuclear weapons (even tactical weapons become strategic if states have common borders) and would be absolutely insensitive to losses (even a loss of a few million of the servicemen would be acceptable for China). Such a war would be more horrible than the World War II. It would require from our state maximal tension, universal mobilization and complete accumulation of the army military hardware, up to the last tank or a plane, in a single direction (we would have to forget such "trifles" like Talebs and Basaev, but this does not guarantee success either). Massive nuclear strikes on basic military forces and cities of China would finally be the only way out, what would exhaust Russia's armament completely. We have not got another set of intercontinental ballistic missiles and submarine-based missiles, whereas the general forces would be extremely exhausted in the border combats. In the long run, even if the aggression would be stopped after the majority of the Chinese are killed, our country would be absolutely unprotected against the "Chechen" and the "Balkan" variants both, and even against the first frost of a possible nuclear winter.

### 1NC Politics DA

#### CIR will pass---but fights are coming

Miami Herald 2/5 (“Will immigration reform go the distance?” http://www.miamiherald.com/2013/02/05/v-print/3218867/will-immigration-reform-go-the.html

Immigration reform is having a “Kumbaya” moment, with support from the White House, a bipartisan contingent in Congress, business and labor. The Republicans are petrified after their dismal showing among the fastest-growing slices of the electorate, Hispanics and Asians; President Barack Obama wants to reward the loyalty of those voters. Business and labor, as well as many politicians, want to fix a dysfunctional system. There are more than 11 million undocumented immigrants, 5 percent of the work force. Many of these people live in fear of discovery, while jobs go unfilled in some areas. Hold the champagne. When it comes to immigration laws, the concept is always easier than the reality. Change failed to happen six years ago, even with a push from a high-powered coalition led by President George W. Bush and Senators John McCain and Edward M. Kennedy. The dynamics are more favorable today. Still, the same obstacles persist; the powerful countervailing considerations include: • A Pathway to Where? There’s a fairly broad consensus for ending the illegal status of the undocumented. The White House, Hispanic groups and most Senate supporters insist that any reform must lead to a pathway to citizenship. That approach faces great resistance. Some lawmakers demand that any move toward citizenship must come second to solving the border-security problem, at a minimum. For some, this is a political cover; under the Obama administration, resources for border security have been increased sharply, including the use of drones. And deportations of undocumented immigrants are at a record high. A border-security trigger is realistic if it includes quantifiable goals, such as the number of new Border Patrol agents, the amount of resources allocated and the new technologies utilized. It isn’t reasonable if it requires meeting an amorphous standard such as “operational control” of a border that is always changing. Hispanic groups assert that the real motive for such demands is to unreasonably stretch out any possibility of granting citizenship. “There would be a backlash if citizenship is delayed for 15 or 20 years,” warns Gary Segura, a Stanford University professor and co-founder of Latino Decisions, a research organization on Hispanic public opinion. • A Fragile Coalition: Equally contentious is the question of future flows of immigrants. One proposal would link the number of legal immigrants to economic conditions: more would be let in when times are good, fewer in tougher times. That sounds easier than it is. There will be clashes over how great a priority should be given to those with high-tech skills or to agricultural workers or to family reunification. Small businesses will rebel against any costly verification plan. Most independent studies show that immigration is a decided economic plus, bringing in revenue and increasing productivity and innovation. Yet the arguments of the populist right may resonate more as the debate heats up. NumbersUSA, a leading anti-immigration group, is reviving charges that immigration reform would drive down wages for middle- and low-income workers. Kris Kobach, the Kansas secretary of state who authored anti-immigration measures in several states and the Republican Party’s platform position on the issue last summer, charges taxpayers would be hit with $2.6 trillion in added food stamp, Medicare and Medicaid and welfare costs. That estimate is refuted by reliable studies; it still cuts. • The Ghost of Dennis Hastert: The former Republican speaker of the House decreed that any bill must command majority support among majority party members. Last month, House Speaker John Boehner, Ohio, waived the rule twice: To pass a measure avoiding the automatic spending cuts and tax increases known as the fiscal cliff and then for aid to victims of Hurricane Sandy. Boehner, along with most party leaders, understands his party’s serious difficulties with Hispanic voters and fears making matters worse by blocking an overhaul. Two of the most virulent anti-immigration Republicans in the House, Lamar Smith of Texas and Steve King of Iowa, no longer hold important committee chairmanships. Yet with anti-immigration sentiment still running high among many Republican rank-and-file voters, it’s tough to imagine a majority of the party’s House members backing a comprehensive bill, even if, as is certain, the Senate goes first. Boehner’s only option might be to let a bill pass primarily with Democratic votes. To do that, he would need the support of House Majority Leader Eric Cantor and the whip, Kevin McCarthy; there’s no shrewder politician than McCarthy, who is always attuned to the party’s base. He’s also from California where, after Gov. Pete Wilson played the anti-immigration card in 1994, the Democrats completely dominate politics. • Who is the Ted Kennedy or Rahm Emanuel? The successful, if flawed, passage of Obama’s health-care measure probably wouldn’t have been possible without the savvy hand of former White House Chief of Staff Emanuel. Congressional Democrats and some outside advocates see no Emanuel counterpart in the current White House; privately, some say they would like the White House to enlist a special envoy — perhaps former Housing Secretary and San Antonio Mayor Henry Cisneros or former Senate Majority Leader Tom Daschle — to shepherd the legislation. There was no more capable legislator or deal-maker than the late Senator Kennedy. Egos and tensions already are surfacing among supporters of reform; Republicans don’t trust the White House, and some Democrats worry that Marco Rubio, the ambitious young Republican senator from Florida, will look for a reason to peel off as he comes under pressure from his party’s right wing. There is no senator today who possesses Kennedy’s skill for navigating these shoals. It’s still a slightly better bet that a big immigration bill will be enacted in this Congress. Getting there will be ugly, and the measure will seem to die more than once as it battles these cross pressures.

#### Congress just refused to fund the green military---plan drains capital

CNN 12 (“Military's plan for a "green" future has Congress seeing red” http://security.blogs.cnn.com/2012/06/08/militarys-plan-for-a-green-future-has-congress-seeing-red/)

The Defense Department has a grand vision for the U.S. military's energy future, including "green"-powered fleets, jets and trucks. But members of Congress are hung up on the dollar signs that come with going green. Language in the House and Senate versions of the defense budget largely bans the use of alternative energy like biofuels, prohibiting the military from purchasing any alternative fuel that costs more than traditional fossil fuels like oil. The catch: Biofuels are always more expensive than oil, about four times more. "To have the military, whose sole job is to defend this country, spending extra money simply on flying their airplanes with fuel that's available at a cheaper price, again on these restraints and the resource restraints that we find ourselves in, makes no sense to me," said Rep. Mike Conaway, R-Texas, who introduced the amendment. The Defense Department says it needs to invest in diversifying the sources of energy that fuel almost every piece of military equipment. The biofuels are considered a "drop-in fuel," meaning no changes to equipment engines are necessary. "As a major consumer, probably the world's single largest consumer, of liquid fuels, we have an interest in making sure we have fuels for the future as well," said Sharon E. Burke, assistant secretary of defense for operational energy plans and programs. "So we're opposed to any efforts that restrict our options in this area." It's been an Obama administration priority to decrease the U.S. dependence on foreign oil. The Defense Department sees energy independence as a national security objective. Since August 2009, the Defense Department has spent $42 million to purchase 1.1 million gallons of biofuels for testing purposes. "Many of those sources of which we are absolutely dependent are in volatile or potentially volatile places on Earth, and some of those oil suppliers probably don't have our best interests at heart," Navy Secretary Ray Mabus said at a Senate hearing. "We would never depend on those oil suppliers to build our ships, our aircraft, our ground equipment, but we give them a say in whether the ships sail, the aircraft fly or the ground vehicles operate, because we depend on them for fuel." Last year, the Navy spent $12 million for 450,000 gallons of biofuel, the largest purchase of biofuel ever in the U.S. The service, which has been a leading force behind the military's green initiatives, plans on using that fuel to power a carrier strike group during a two-day demonstration this summer. A green fleet will be ready for deployment in 2016. What the congressional restriction would do to those plans is unclear. Pentagon spokeswoman Lt. Col. Melinda Morgan said the Navy will move forward as planned but warned that if the provisions are enacted, "they could affect some of the Navy's biofuels goals and restrict DoD's ability to increase our resilience against potential supply disruptions and future price volatility of petroleum products." "The Great Green Fleet doesn't have an environmental agenda," Mabus said. "It's about maintaining America's military and economic leadership across the globe in the 21st century." Every time the price of a barrel of oil goes up by one dollar, it costs the military $130 million, according to the Pentagon. "When anyone says we can't afford to invest in developing alternative sources of energy, my reply is, we can't afford not to," he said. "We can't afford to wait until price shocks or supply shocks leave us no alternative." Mabus is not blind to the large price tag of $26 a gallon that comes with the green fuel but says simple economics can solve the issue. "Alternative fuels can't become competitive with oil unless there's demand for them," he said. "But demand at commercial scale will never be possible unless there's a supply to meet that demand." The Defense Department's purchase of small amounts of biofuel for research and development has dramatically reduced the price of biofuels, cutting the cost in half in two years, according to Mabus. And the Navy is investing $170 million in the production of advanced "drop-in" aviation and marine biofuels to kick-start the U.S. alternative energy sector. "It's really about investment today for pay off tomorrow," said clean energy advocate Phyllis Cuttino of Pew Charitable Trusts. "How much did the first pair of night vision goggles cost us? A lot more probably than they cost now." But Conaway says it's not the military's job to get an industry off the ground. "Is it the federal government's responsibility to start that industry? And I would argue that no, it is the private sector's out there, that's great at doing these kinds of things," Conaway said. "It's got to be, Southwest Airlines and American Airlines gotta be buying that fuel. And when that happens? Great. The Department of the Navy can buy it as well." With the amendment passing in both the House and Senate Armed Services Committees, Conaway expects the restriction to be a part of the final defense budget.

Political capital is key

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

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

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

#### Immigration reform expands skilled labor—spurs relations and economic growth in China and India.

LA Times 11/9/12 [Other countries eagerly await U.S. immigration reform, http://latimesblogs.latimes.com/world\_now/2012/11/us-immigration-reform-eagerly-awaited-by-source-countries.html]

"Comprehensive immigration reform will see expansion of skilled labor visas," predicted B. Lindsay Lowell, director of policy studies for the Institute for the Study of International Migration at Georgetown University. A former research chief for the congressionally appointed Commission on Immigration Reform, Lowell said he expects to see at least a fivefold increase in the number of highly skilled labor visas that would provide "a significant shot in the arm for India and China." There is widespread consensus among economists and academics that skilled migration fosters new trade and business relationships between countries and enhances links to the global economy, Lowell said. "Countries like India and China weigh the opportunities of business abroad from their expats with the possibility of brain drain, and I think they still see the immigration opportunity as a bigger plus than not," he said.

#### US-Indian relations avert South Asian nuclear war.

Schaffer 2 [Spring 2002, Teresita—Director of the South Asia Program at the Center for Strategic and International Security, Washington Quarterly, Lexis]

Washington's increased interest in India since the late 1990s reflects India's economic expansion and position as Asia's newest rising power. New Delhi, for its part, is adjusting to the end of the Cold War. As a result, both giant democracies see that they can benefit by closer cooperation. For Washington, the advantages include a wider network of friends in Asia at a time when the region is changing rapidly, as well as a stronger position from which to help calm possible future nuclear tensions in the region. Enhanced trade and investment benefit both countries and are a prerequisite for improved U.S. relations with India. For India, the country's ambition to assume a stronger leadership role in the world and to maintain an economy that lifts its people out of poverty depends critically on good relations with the United States.

### 1NC Greenwashing K

#### ---Greening military energy consumption is a depoliticizing act which reifies structures of persistent conflict that make affirmative impact claims inevitable.

Sirota 2011

David, best-selling author of the new book "Back to Our Future: How the 1980s Explain the World We Live In Now," co-hosts The Rundown with Sirota & Brown on AM630 KHOW, http://www.salon.com/2011/05/23/greenwashing\_military/

Yes, military brass led by U.S. Navy Secretary Ray Mabus have lately been mounting a PR campaign to convince America that the gas-guzzling armed forces are now helping solve burgeoning environmental crises by “going green.” Officials are specifically touting their success reducing energy and water consumption at bases, and they are promoting an initiative to make sure “half of all energy that the navy and marines use afloat, ashore and in the air will come from non-fossil fuel sources.” For this effort, they have been landing periodic — and fawning — coverage in the New York Times, USA Today and National Public Radio, among others. Coming from a Pentagon that is the largest single consumer of energy in America, these modest steps are long overdue and commendable. But absent deeper behavioral change, these initiatives are laudable only in the sense that it’s laudable, say, for a wealthy Hollywood star to retrofit one of his seven Hummers or for a growing coal company to donate a drop of its profits to a tree-planting charity. In other words, it’s good in a very limited way, because sans behavioral change, it’s still fundamentally an act of greenwashing. In this case, it’s a greenwashing that tries to hide the fact that maintaining an empire at the barrel of a gun requires an enormous amount of energy, and will continue requiring an enormous amount of energy — much of it not so clean — no matter how many “Military Going Green” stories the Pentagon’s spinmeisters land in the media. To know this is to behold just two data points from the major military occupations of the last decade. In Iraq, the Atlantic Monthly reported in 2005 that the military uses “about 1.7 million gallons of fuel a day” which translates into “each of the 150,000 soldiers on the ground consumes roughly nine gallons of fuel a day.” Similarly, in Afghanistan, energy analyst Sohbet Karbuz crunched numbers from the Defense Logistics Agency to find that by 2006, Operation Enduring Freedom had already consumed “more than 2.2 billion gallons of fuel.” While some of that oil would have still been consumed by the military without the Iraq or Afghanistan wars, a lot of it would have been saved. That means if the military was as serious as it claims to be about protecting the environment and using less energy, it would be initiating a much different conversation right now. It would probably be spending a lot less time promoting pie-in-the-sky plans to Prius-ize some of its tanks (a la Schwarzenegger hydrogen-izing his Hummer) and a lot more time talking about how to end what it’s own leaders call an “era of persistent conflict”. Because, as the numbers imply, the fastest, most immediate and most efficient way for the Pentagon to mitigate the environmental crises that come from energy consumption is to simply move America away from its energy-draining policy of permanent war. This revelation — and the fact that few military leaders are talking about it — shows why this really is greenwashing in the purest sense of that marketing term. The Pentagon is not really about going green to protect the planet or even to prevent against the national security threats that military leaders say global climate change create. It’s mostly about the Pentagon channeling Schwarzenegger in selling the idea that it can continue its same old behavior and posture. Indeed, the military’s message is designed to have us believe that the Pentagon can somehow continue the energy-expensive environmentally destructive policy of permanent war while conserving energy. It’s as fantastical a notion as an oil company saying it aims to help reduce carbon emissions by producing more oil, but the propaganda has a goal: making war that much more acceptable to a frugal public.

#### ---The affirmative’s knowledge production concerning China renders it a knowable object and makes security efforts a self-fulfilling prophecy.

Pan 2004

Chengxin, PhD in Political Science and International Relations and member of the International Studies Association, Alternatives: Global, Local, Political, Vol. 29 Pg. 305-307

China and its relationship with the United States has long been a fascinating subject of study in the mainstream U.S. international relations community. This is reflected, for example, in the current heated debates over whether China is primarily a strategic threat to or a market bonanza for the United States and whether containment or engagement is the best way to deal with it. (1) While U.S. China scholars argue fiercely over "what China precisely is," their debates have been underpinned by some common ground, especially in terms of a positivist epistemology. Firstly, they believe that China is ultimately a knowable object, whose reality can be, and ought to be, empirically revealed by scientific means. For example, after expressing his dissatisfaction with often conflicting Western perceptions of China, David M. Lampton, former president of the National Committee on U.S.-China Relations, suggests that "it is time to step back and look at where China is today, where it might be going, and what consequences that direction will hold for the rest of the world." (2) Like many other China scholars, Lampton views his object of study as essentially "something we can stand back from and observe with clinical detachment." (3) Secondly, associated with the first assumption, it is commonly believed that China scholars merely serve as "disinterested observers" and that their studies of China are neutral, passive descriptions of reality. And thirdly, in pondering whether China poses a threat or offers an opportunity to the United States, they rarely raise the question of "what the United States is." That is, the meaning of the United States is believed to be certain and beyond doubt. I do not dismiss altogether the conventional ways of debating China. It is not the purpose of this article to venture my own "observation" of "where China is today," nor to join the "containment" versus "engagement" debate per se. Rather, I want to contribute to a novel dimension of the China debate by questioning the seemingly unproblematic assumptions shared by most China scholars in the mainstream IR community in the United States. To perform this task, I will focus attention on a particularly significant component of the China debate; namely, the "China threat" literature. More specifically, I want to argue that U.S. conceptions of China as a threatening other are always intrinsically linked to how U.S. policymakers/mainstream China specialists see themselves (as representatives of the indispensable, security-conscious nation, for example). As such, they are not value-free, objective descriptions of an independent, preexisting Chinese reality out there, but are better understood as a kind of normative, meaning-giving practice that often legitimates power politics in U.S.-China relations and helps transform the "China threat" into social reality. In other words, it is self-fulfilling in practice, and is always part of the "China threat" problem it purports merely to describe. In doing so, I seek to bring to the fore two interconnected themes of self/other constructions and of theory as practice inherent in the "China threat" literature--themes that have been overridden and rendered largely invisible by those common positivist assumptions. These themes are of course nothing new nor peculiar to the "China threat" literature. They have been identified elsewhere by critics of some conventional fields of study such as ethnography, anthropology, oriental studies, political science, and international relations. (4) Yet, so far, the China field in the West in general and the U.S. "China threat" literature in particular have shown remarkable resistance to systematic critical reflection on both their normative status as discursive practice and their enormous practical implications for international politics. (5) It is in this context that this article seeks to make a contribution. I begin with a brief survey of the "China threat" argument in contemporary U.S. international relations literature, followed by an investigation of how this particular argument about China is a discursive construction of other, which is predicated on the predominant way in which the United States imagines itself as the universal, indispensable nation-state in constant need of absolute certainty and security. Finally, this article will illustrate some of the dangerous practical consequences of the "China threat" discourse for contemporary U.S.-China relations, particularly with regard to the 1995-1996 Taiwan Strait missile crisis and the 2001 spy-plane incident.

#### ---Energy green-washing locks the military in a self-fulfilling quest for resources and risks extinction.

Nevins 2010

Joseph, teaches geography at Vassar College, Greenwashing the Pentagon, http://climateandcapitalism.com/2010/06/15/greenwashing-the-pentagon/

Such “greenwashing” helps to mask the fact that the Pentagon devours about 330,000 barrels of oil per day (a barrel has 42 gallons), more than the vast majority of the world’s countries. If the U.S. military were a nation-state, it would be ranked number 37 in terms of oil consumption—ahead of the likes of the Philippines, Portugal, and Nigeria—according to the CIA Factbook. And although much of the military’s technology has become far more fuel-efficient over the last few decades, the amount of oil consumed per soldier per day in war-time has increased by 175 percent since Vietnam, given the Pentagon’s increasing use and number of motorized vehicles. A 2010 study by Deloitte, the financial services company, reports that the Pentagon uses 22 gallons of oil per soldier per day deployed in its wars, a figure that is expected to grow 1.5 percent annually though 2017.[5] The worst offender is the Air Force, which consumes 2.5 billion gallons of aviation fuel a year, and accounts for more than half of the Pentagon’s energy use. Under normal flight conditions, a F-16 fighter jet burns up to 2,000 gallons of fuel per flight hour. The resulting detrimental impact on the Earth’s climate system is much greater per mile traveled than motorized ground transport due to the height at which planes fly combined with the mixture of gases and particles they emit.[6] Among the ironies of all this, given that a central goal of U.S. military strategy is to ensure the smooth flow of oil to the United States, is that the Pentagon’s voracious appetite for energy helps to justify its very existence and seemingly never-ending growth. In a direct sense, war and militarism produce landscapes and ecosystems of violence—and violated bodies. In Laos, unexploded ordnance from Washington’s illegal and covert bombing litters the countryside, and has killed and maimed thousands since the war’s end, and continues to do so at the rate of almost one person per day. In Vietnam, about 500,000 Vietnamese children have been born since the mid-1970s with birth defects believed to be related to the defoliant Agent Orange that the Pentagon dumped on the country. And in war-torn Fallujah, the aftermath of two U.S. sieges of the Iraqi city in 2004 has seen a huge rise in the number of chronic deformities among infants and a spike in early-age cancer.[7] Beyond locations directly targeted by war, the ill effects of military consumption of environmental resources do not respect territorial boundaries. They exacerbate a growing environmental crisis on a global scale. From the degradation of the world’s oceans, to a steep decline in biodiversity and intensifying climate destabilization, war and militarism threaten humanity and life more broadly in unprecedented ways. Such ecological “costs” are certainly not limited to the activities of the U.S. military. But given its engagement in multiple wars, a network of hundreds of military bases around the world and dozens more in the United States, and a budget now roughly the equivalent of all of the rest of the world’s militaries combined, the Pentagon must be the central focus of efforts to protect the biosphere by challenging war and militarism. More than ever, humanity—and Mother Earth—can no long afford them.

#### Vote negative to repolitisize the energy debate---taking a step back from produtivist calls for nanosolar power is critical to reframe the debate towards energy security for whom

Hillyard et. al. 12

Hildyard Lohmann & Sexton 2012-Nicholas, founder and Director of The Corner House, Larry, author of the book “Carbon Trading: A Critical Conversation on Climate Change, Privatization and Power” & works at the British NGO The Corner House, Sarah, a director of The Corner House, Energy Security For What? For Whom? The Corner House, http://www.thecornerhouse.org.uk/resource/energy-security-whom-what

In sum, encouraging a rational debate about “energy security” necessitates understanding what is meant not only by the phrase, but also by its composite parts. The term “energy,” despite its apparent simplicity, presents particular challenges. During the past two centuries, the vernacular, varied, lower-case “energies” of commons regimes have been joined by a new, abstract, upper-case Energy evolved in industrialised societies. Exploring the difference between “energies” and Energy is crucial to understanding the international politics of “energy security”. Abstract, monolithic, seemingly limitless Energy is something that only became possible with fossil-fuelled productivism and the machines, networks and institutions that came with it. This Energy, like lowercase “energies”, can deliver the basic necessities of life, at least to some, lending a certain plausibility to politicians’ claims that their worries about “energy security” centre on keeping the lights on and homes warm. But its underlying logic is different. Upper-case Energy is a transformation and commensuration of specific energies into a general capacity to maximise the ability of human bodies to make stuff. As the First Law of Thermodynamics (developed at the same time as industrial capitalism) recognises, any form of energy can be transformed into others and used to do work (but cannot be created or destroyed). Just as the invention of an absolute Time independent of daylight variations and traditional holidays helped discipline early industrial workers into the regular rhythm of a long working day, so too the subsequent development of an abstract Energy was key to intensifying their productivity further and harnessing them to the pace of the machine. For this upper-case Energy, survival is incidental except insofar as it supports the production imperative. Whereas specific “energies” know their limits, of Energy there can never be too much. Other things being equal, the more there is, the more can be produced, and the more money business can make, without limit. Lower-case “energies” and Big-E Energy are not only different: they are also, in many senses, enemies to each other. In order that fragmented “energies” do not become an obstacle to the mobilisation of economic value, they have to be folded into abstract Energy under the care of dedicated disciplines and institutions (bureaucrats, engineers, statisticians, laboratories, economics departments, inventors, investors, armies). Obsessed with quantitative growth for growth’s sake, Energy tends to treat the right of all to a warm home (or a cool one in hotter climes), cooked food, electric light as a nuisance. It heralds a world that is not only unequal, but also unable to respect the common right to subsistence. Nowhere is this clearer than in the case of agrofuels, whose “interchangeability” with oil under the rubric of a unitary Energy makes routine the replacement of subsistence agriculture with industrial cropping aimed at fuelling cars and airplanes. It is also plain in India’s development plans, which call for US$100 billion to be spent on a burgeoning number of large Energy projects – coal, oil, hydropower and renewables – that will serve above all to boost the profits of industrialists but leave less than 2 per cent for the household use of the 700 million who lack modern services. And it can be seen in South Africa’s policy of providing some of the cheapest electricity in the world to smelting companies while many township residents are forced to pirate electricity illegally because the price is out of their reach. Well over a century into the era of electrification, more than a billion people, about one-quarter of the world’s population, have no access to electricity or other non-biotic forms of energy (and many will never have under fossil-fuelled capitalism). If fossil-fuelled capitalism has defined what we mean by energy, then merely to use the word uncritically is to make a commitment to certain assumptions about scarcity, foreclose certain alternatives and cover up some of the most important issues that need to be discussed. Paradoxically, having a serious discussion about “energy security” requires taking a therapeutic step back from the modern concept of Energy itself. For example, the seemingly innocent query “How can we have energy security in a post-fossil world?” is not so much a question as an ultimatum. The question implies that however we organise our societies in future, it will have to be on the model that fossil capitalism built, with its threats to the right to survive of both humans and nonhumans (and the associated threats to “security” itself, on a commons understanding). A more fruitful question would be: “Is the world that is defined (in part) by the modern concept of Energy the world that we want?” It is just such questions that policymakers and social movements must ask when initiating any discussion of energy security.

### 1NC Nanotech

#### Your evidence doesn’t say U.S. must be first, but that arms races only occur without the lack of cooperative MNT agreements – you don’t solve this because the U.S. will act unilaterally as a result of the plan

Treder and Phoenix 1AC Author 7

(Mike,- Executive Director of CRN, BS Biology, University of Washington, Research Fellow with the [Institute for Ethics and Emerging Technologies](http://ieet.org/index.php), a consultant to the [Millennium Project](http://www.acunu.org/) of the American Council for the United Nations University and to the [Future Technologies Advisory Group](http://futuretag.com/), serves on the [Nanotech Briefs](http://www.nanotechbriefs.com/) Editorial Advisory Board, is a member of the [New York Academy of Sciences](http://www.nyas.org/) and a member of the [World Future Society](http://www.wfs.org/). AND Chris,- CRN’s Director of Research, has studied [nanotechnology](http://www.crnano.org/whatis.htm) for more than 15 years. BS, Symbolic Systems, MS, Computer Science, Stanford University. CRN's [positions](http://www.crnano.org/positions.htm) are the result of deliberations between its principals, Mike Treder and Chris Phoenix, informed by our mutual lifelong interest in emerging technologies and studies of societal dynamics, and sharpened through consultation with experts in many fields and continued research into both the technical and policy aspects of advanced [nanotechnology](http://www.crnano.org/whatis.htm). Center For Responsible Nanotechnology, Results of Our Ongoing Research, Last Updated April 16, 2007. <http://www.crnano.org/overview.html>

A nanotech program must balance many benefits and risks. Any good molecular nanotechnology administration program will promote at least four benefits, while preventing about a dozen major risks. This is not easy, and is proof that a simplistic solution cannot work. The program should promote personal, institutional, and international security; economic well-being of groups and individuals; humanitarian relief and human rights; and innovation. In addition to the risks previously analyzed, the existence of a global MNT administration implies the possibility of corruption, so the program must be carefully designed to minimize that. A program that fulfills all these requirements should be acceptable to most groups and people; this is good because it will need cooperation from almost everyone to prevent the inevitable few malicious people from bypassing it

#### Your evidence concedes that ALL governments – including China, will not be covert and allow for mutual inspections because they want reciprocity

Treder and Phoenix 1AC Author 7

(Mike,- Executive Director of CRN, BS Biology, University of Washington, Research Fellow with the [Institute for Ethics and Emerging Technologies](http://ieet.org/index.php), a consultant to the [Millennium Project](http://www.acunu.org/) of the American Council for the United Nations University and to the [Future Technologies Advisory Group](http://futuretag.com/), serves on the [Nanotech Briefs](http://www.nanotechbriefs.com/) Editorial Advisory Board, is a member of the [New York Academy of Sciences](http://www.nyas.org/) and a member of the [World Future Society](http://www.wfs.org/). AND Chris,- CRN’s Director of Research, has studied [nanotechnology](http://www.crnano.org/whatis.htm) for more than 15 years. BS, Symbolic Systems, MS, Computer Science, Stanford University. CRN's [positions](http://www.crnano.org/positions.htm) are the result of deliberations between its principals, Mike Treder and Chris Phoenix, informed by our mutual lifelong interest in emerging technologies and studies of societal dynamics, and sharpened through consultation with experts in many fields and continued research into both the technical and policy aspects of advanced [nanotechnology](http://www.crnano.org/whatis.htm). Center For Responsible Nanotechnology, Results of Our Ongoing Research, Last Updated April 16, 2007. <http://www.crnano.org/overview.html>

Legitimate commercial use would be impossible, so no commercial entity would try it. Governments might want a covert nanofactory, but would not want any other government to have one; this should be sufficient incentive to submit to mutual inspections.

**Fears of ‘grey goo’ are outlandish and based on dated information**

**Center for Responsible Nanotechnology**, **2003** (“Grey Good is a Small Issue” December 13, http://crnano.org/BD-Goo.htm)

Fear of runaway [nanobots](http://crnano.org/BD-Nanobots.htm), or “grey goo”, is more of a public issue than a scientific problem. Grey goo as a result of out of control nanotechnology played a starring role in an article titled "[The Grey Goo Problem](http://www.nytimes.com/2003/12/14/magazine/14GRAY.html%20/%20_blank)" by Lawrence Osborne in today's [*New York Times Magazine*](http://www.nytimes.com/pages/magazine/index.html%20/%20_blank). This article and other recent fictional portrayals of grey goo, as well as statements by scientists such as [Richard Smalley](http://crnano.org/Debate.htm), are signs of significant public concern. But although biosphere-eating goo is a gripping story, current [molecular manufacturing](http://crnano.org/crnglossary.htm%20/%20Molecular) proposals contain nothing even similar to grey goo. The idea that nanotechnology manufacturing systems could run amok is based on outdated information. The earliest proposals for molecular manufacturing technologies echoed biological systems. Huge numbers of tiny robots called “[assemblers](http://crnano.org/crnglossary.htm%20/%20Assembler)” would self-replicate, then work together to build large products, much like termites building a termite mound. Such systems appeared to run the risk of going out of control, perhaps even “eating” large portions of the biosphere. Eric Drexler warned in 1986, “We cannot afford certain kinds of accidents with replicating assemblers.” Since then, however, Drexler and others have developed models for making safer and more efficient machine-like systems that resemble an assembly line in a factory more than anything biological. These mechanical designs were described in detail in Drexler's 1992 seminal reference work, [*Nanosystems*](http://www.foresight.org/Nanosystems/toc.html%20/%20_blank), which does not even mention free-floating autonomous assemblers. Replicating assemblers will not be used for manufacturing. Factory designs using integrated nanotechnology will be much more efficient at building products, and a [personal nanofactory](http://crnano.org/bootstrap.htm) is nothing like a grey goo nanobot. A stationary tabletop factory using only preprocessed chemicals would be both safer and easier to build. Like a drill press or a lathe, such a system could not run wild. Systems like this are the basis for responsible molecular manufacturing proposals. To evaluate Eric Drexler's technical ideas on the basis of grey goo is to miss the far more important policy issues created by general-purpose nanoscale manufacturing. A grey goo robot would face a much harder task than merely replicating itself. It would also have to survive in the environment, move around, and convert what it finds into raw materials and power. This would require sophisticated chemistry. None of these functions would be part of a molecular manufacturing system. A grey goo robot would also require a relatively large computer to store and process the full blueprint of such a complex device. A nanobot or nanomachine missing any part of this functionality could not function as grey goo. Development and use of molecular manufacturing will create nothing like grey goo, so it poses no risk of producing grey goo by accident at any point.

**‘Grey Goo’ is science fiction – nanotechnology can be built without self replicating. Their authors are just fear-mongering.**

**Institute of Physics, 2004** (“Nanotechnology pioneer slays “grey goo” myths” July 6, http://www.iop.org/EJ/news/-topic=763/journal/0957-4484)

Eric Drexler, known as the father of nanotechnology, today (Wednesday, 9th June 2004) publishes a paper that admits that self-replicating machines are not vital for large-scale molecular manufacture, and that nanotechnology-based fabrication can be thoroughly non-biological and inherently safe. Talk of runaway self-replicating machines, or “grey goo”, which he first cautioned against in his book Engines of Creation in 1986, has spurred fears that have long hampered rational public debate about nanotechnology. Writing in the Institute of Physics journal Nanotechnology, Drexler slays the myth that molecular manufacture must use dangerous self-replicating machines. “Runaway replicators, while theoretically possible according to the laws of physics, cannot be built with today’s nanotechnology toolset,” says Dr. Drexler, founder of the Foresight Institute, in California, and Senior Research Fellow of the Molecular Engineering Research Institute (MERI). He continued: “Self-replicating machines aren't necessary for molecular nanotechnology, and aren’t part of current development plans.” The paper, Safe Exponential Manufacturing by Chris Phoenix, Director of Research of the Center for Responsible Nanotechnology, (CRN) and Dr. K. Eric Drexler, also warns that scaremongering over remote scenarios such as “grey goo” is taking attention away from serious safety concerns, such as a deliberate abuse of the technology. Phoenix said: “Runaway replication would only be the product of a deliberate and difficult engineering process, not an accident. Far more serious, however, is the possibility that a large-scale and convenient manufacturing capacity could be used to make powerful non-replicating weapons in unprecedented quantity, leading to an arms race or war. Policy investigation into the effects of molecular nanotechnology should consider deliberate abuse as a primary concern, and runaway replication as a more distant issue.”

**The scientist who first promulgated the ‘grey goo’ theory has since rejected – self replicating nanobots are only possible in Michael Chriton’s novels**

**Kalaugher, 2004** (Liz, Northwestern University, “ Grey Goo and Other Scary Stories” June 9, http://www.discovernano.northwestern.edu/affect/societalimpact/scarystories)

In 1986, Dr. Eric Drexler published his book entitled *Engines of Creation*. The book included Drexler’s fears about the future of nanotechnology and vividly described the possibility of miniature devices called “nanobots,” capable of reproducing themselves and eventually taking over the planet. He labeled the resulting mess “grey goo” and the notice generated a great deal of fear (not to mention subject matter for a number of science fiction writers). Since then, researchers have learned enough about nano-manufacturing to declare the grey goo scenario “obsolete.” In a 2004 interview, Eric Drexler stated, “Updated molecular manufacturing concepts…make fears of accidental runaway replication - loosely based on my 1986 grey goo scenario - quite obsolete. Chris Phoenix [of the Center for Responsible Nanotechnology] and I wrote the paper to counter the main threat posed by grey goo, which is that all the hype diverts attention from more important issues - research directions, development paths, and the role of advanced nanotechnologies in medicine, the environment, the economy, and in strategic competition.” About the time that the “nanobots” story was cooling off, Michael Crichton’s science fiction thriller *Prey* was released in bookstores. In Crichton's book, miniature devices called “nano-robots” capable of reproducing themselves, eventually take over the world. Sound familiar? Although the story is about as possible as the story lines from Crichton’s other works like *Jurassic Park*, there are just enough scientific facts sprinkled into the story to make it sound somewhat plausible. While there are still many unknowns surrounding nanotechnology, it’s important to separate the science fact from the science fiction. The majority of nanotechnology research focuses on issues other than nanobots, and specifically the design of new materials with properties that derive from their size and composites, and which can be used to make a positive impact in fields ranging from medicine to energy conversion and storage.

**BLUE GOO SOLVES GREY GOO**

**Arrius in 2003** [Quintus – staff writer for Strategy Page – 11/6, “Nanotechnology: Apocalyptic Development?,” www.strategypage.com]

<One suggested solution to the problem of "grey goo" is "blue goo" - special "policeman" nanotech devices designed specifically to recognise and disassemble molecular machines which are out of control. The blue goo would be deliberately released into the world, and allowed to replicate to a pre-determined level, there to wait and monitor the activity of other nanotech and act in case of runaway self-replicators. It's a physically possible solution to the problem - but the human race has a long history of developing technologies which destroy the environment well before they develop the technologies to control them. With nanotech, we will only get one chance - the first accidental release could be the end of all life on earth.>

**Grey Goo wouldn’t destroy the universe even if it happened**

**Webb in ’02** (Stephen, Physicist at Open University of London, “If the Universe Is Teeming with Aliens... Where Is Everybody? Fifty Solutions to Fermi's Paradox and the Problem of Extraterrestrial Life”, p. 127)

This solution to the paradox, which has been seriously proposed, suffers the same problem as many other solutions: even if it can occur it is not convincing as a "universal" solution. Not every ETC will succumb to the gray goo.

#### China isn’t going to go to war – your evidence is rhetoric

Rosecrance et al 2010

Richard, Political Science Professor @ Cal and Senior Fellow @ Harvard’s Belfer Center and Former Director @ Burkle Center of IR @ UCLA, and Jia Qingguo, PhD Cornell, Professor and Associate Dean of School of International Studies @ Peking University, “Delicately Poised: Are China and the US Heading for Conflict?” Global Asia 4.4, http://www.globalasia.org/l.php?c=e251

Will China and the US Go to War? If one accepts the previous analysis, the answer is “no,” or at least not likely. Why? First, despite its revolutionary past, China has gradually accepted the US-led world order and become a status quo power. It has joined most of the important inter-governmental international organizations. It has subscribed to most of the important international laws and regimes. It has not only accepted the current world order, it has become a strong supporter and defender of it. China has repeatedly argued that the authority of the United Nations and international law should be respected in the handling of international security crises. China has become an ardent advocate of multilateralism in managing international problems. And China has repeatedly defended the principle of free trade in the global effort to fight the current economic crisis, despite efforts by some countries, including the US, to resort to protectionism. To be sure, there are some aspects of the US world order that China does not like and wants to reform. However, it wishes to improve that world order rather than to destroy it. Second, China has clearly rejected the option of territorial expansion. It argues that territorial expansion is both immoral and counterproductive: immoral because it is imperialistic and counterproductive because it does not advance one’s interests. China’s behavior shows that instead of trying to expand its territories, it has been trying to settle its border disputes through negotiation. Through persistent efforts, China has concluded quite a number of border agreements in recent years. As a result, most of its land borders are now clearly drawn and marked under agreements with its neighbors. In addition, China is engaging in negotiations to resolve its remaining border disputes and making arrangements for peaceful settlement of disputed islands and territorial waters. Finally, even on the question of Taiwan, which China believes is an indisputable part of its territory, it has adopted a policy of peaceful reunification. A country that handles territorial issues in such a manner is by no means expansionist. Third, China has relied on trade and investment for national welfare and prestige, instead of military conquest. And like the US, Japan and Germany, China has been very successful in this regard. In fact, so successful that it really sees no other option than to continue on this path to prosperity. Finally, after years of reforms, China increasingly finds itself sharing certain basic values with the US, such as a commitment to the free market, rule of law, human rights and democracy. Of course, there are still significant differences in terms of how China understands and practices these values. However, at a conceptual level, Beijing agrees that these are good values that it should strive to realize in practice. A Different World It is also important to note that certain changes in international relations since the end of World War II have made the peaceful rise of a great power more likely. To begin with, the emergence of nuclear weapons has drastically reduced the usefulness of war as a way to settle great power rivalry. By now, all great powers either have nuclear weapons or are under a nuclear umbrella. If the objective of great power rivalry is to enhance one’s interests or prestige, the sheer destructiveness of nuclear weapons means that these goals can no longer be achieved through military confrontation. Under these circumstances, countries have to find other ways to accommodate each other — something that China and the US have been doing and are likely to continue to do. Also, globalization has made it easier for great powers to increase their national welfare and prestige through international trade and investment rather than territorial expansion. In conducting its foreign relations, the US relied more on trade and investment than territorial expansion during its rise, while Japan and Germany relied almost exclusively on international trade and investment. China, too, has found that its interests are best served by adopting the same approach. Finally, the development of relative pacifism in the industrialized world, and indeed throughout the world since World War II, has discouraged any country from engaging in territorial expansion. There is less and less popular support for using force to address even legitimate concerns on the part of nation states. Against this background, efforts to engage in territorial expansion are likely to rally international resistance and condemnation. Given all this, is the rise of China likely to lead to territorial expansion and war with the US? The answer is no.

#### And their terminal impact to China is laughable – it comes from someone writing a blog using rhetorical flourish and has no qualifications to speak to the development of Chinese nanotechnology and their military doctrine

### 1NC Hegemony

#### Only scenario for cyber-attack is if a war started first---that means the disad turns case

Sasakawa Peace Foundation 9/12/11 (“Rethinking Cybersecurity – A Comprehensive Approach” <http://csis.org/files/publication/110920_Japan_speech_2011.pdf>, Donnie)

Cyberwar is also a risk, but it is overstated. Advanced militaries have plans and capabilities to attack opposing military forces, critical infrastructure, and other civilian targets. We can regard cyber attack can be regarded as a new attack capability that has both tactical and strategic uses, similar to missiles or aircraft that can be launched from a distance and strike rapidly at a target. But a pure cyberwar, using only cyber attacks is unlikely. The initial analyses of cybersecurity exaggerated the effect of a cyber attack. It is possible to do physical damage by introducing malicious software into the computers or devices that control critical infrastructures, but this will not be the equivalent of a bomb. A cyber attack will not be a decisive weapon. This means that no nation will launch a cyber attack or engage in a pure cyber war, because a cyber attack by itself is more likely to annoy an opponent than to defeat it. We are likely to see cyber attack only in the context of some larger military conflict.

#### Interdisciplinary research goes neg – no risk of an impact

Lawson 11 (Sean Lawson, Assistant Professor in the Department of Communication at the University of Utah. His Ph.D. is from the Department of Science and Technology Studies at Rensselaer Polytechnic Institute. “Beyond Cyber-Doom: Cyberattack Scenarios and the Evidence of History” <http://mercatus.org/sites/default/files/publication/beyond-cyber-doom-cyber-attack-scenarios-evidence-history_1.pdf>, Donnie)

Even today, planning for disasters and future military conflicts alike, including planning for future conflicts in cyberspace, often relies upon hypothetical scenarios that begin with the same assumptions about infrastructural and societal fragility found in early 20th-century theories of strategic bombardment. Some have criticized what they see as a reliance in many cases upon hypothetical scenarios over empirical data (Glenn, 2005; Dynes, 2006; Graham & Thrift, 2007: 9–10; Ranum, 2009; Stiennon, 2009). But, there exists a body of historical and sociological data upon which we can draw, **which casts serious doubt upon the assumptions underlying cyberdoom scenarios**. Work by scholars in various fields of research, including the history of technology, military history, and disaster sociology has shown that both infrastructures and societies are more resilient than **often assumed by policy makers**.

#### They conflate minor blackouts with attempted attacks, their evidence is rhetorical hyperbole

Schneier 10(Bruce, Security Technologist and author of several books on cyber security, “Threat of 'cyberwar' has been hugely hyped” 7/7/10 http://edition.cnn.com/2010/OPINION/07/07/schneier.cyberwar.hyped/)

"The United States is fighting a cyberwar today, and we are losing," said former NSA director -- and current cyberwar contractor -- Mike McConnell. "Cyber 9/11 has happened over the last ten years, but it happened slowly so we don't see it," said former National Cyber Security Division director Amit Yoran. Richard Clarke, whom Yoran replaced, wrote an entire book hyping the threat of cyberwar. General Keith Alexander, the current commander of the U.S. Cyber Command, hypes it every chance he gets. This isn't just rhetoric of a few over-eager government officials and headline writers; the entire national debate on cyberwar is plagued with exaggerations and hyperbole. Googling those names and terms -- as well as "cyber Pearl Harbor," "cyber Katrina," and even "cyber Armageddon" -- gives some idea how pervasive these memes are. Prefix "cyber" to something scary, and you end up with something really scary. Cyberspace has all sorts of threats, day in and day out. Cybercrime is by far the largest: fraud, through identity theft and other means, extortion, and so on. Cyber-espionage is another, both government- and corporate-sponsored. Traditional hacking, without a profit motive, is still a threat. So is cyber-activism: people, most often kids, playing politics by attacking government and corporate websites and networks. These threats cover a wide variety of perpetrators, motivations, tactics, and goals. You can see this variety in what the media has mislabeled as "cyberwar." The attacks against Estonian websites in 2007 were simple hacking attacks by ethnic Russians angry at anti-Russian policies; these were denial-of-service attacks, a normal risk in cyberspace and hardly unprecedented. A real-world comparison might be if an army invaded a country, then all got in line in front of people at the DMV so they couldn't renew their licenses. If that's what war looks like in the 21st century, we have little to fear. Similar attacks against Georgia, which accompanied an actual Russian invasion, were also probably the responsibility of citizen activists or organized crime. A series of power blackouts in Brazil was caused by criminal extortionists -- or was it sooty insulators? China is engaging in espionage, not war, in cyberspace. And so on. One problem is that there's no clear definition of "cyberwar." What does it look like? How does it start? When is it over? Even cybersecurity experts don't know the answers to these questions, and it's dangerous to broadly apply the term "war" unless we know a war is going on. Yet recent news articles have claimed that China declared cyberwar on Google, that Germany attacked China, and that a group of young hackers declared cyberwar on Australia. (Yes, cyberwar is so easy that even kids can do it.) Clearly we're not talking about real war here, but a rhetorical war: like the war on terror. We have a variety of institutions that can defend us when attacked: the police, the military, the Department of Homeland Security, various commercial products and services, and our own personal or corporate lawyers. The legal framework for any particular attack depends on two things: the attacker and the motive. Those are precisely the two things you don't know when you're being attacked on the Internet. We saw this on July 4 last year, when U.S. and South Korean websites were attacked by unknown perpetrators from North Korea.Korea -- or perhaps England. Or was it Florida?

#### It would be powerful enough to collapse the grid

Sommer & Brown 11

(Peter, Ian, “Reducing Systemic Cybersecurity Risk” OECD Project on future global shocks 1/14/11 http://www.oecd.org/dataoecd/57/44/46889922.pdf)

This report is part of a broader OECD study into ―Future Global Shocks‖, examples of which could include a further failure of the global financial system, large-scale pandemics, escape of toxic substances resulting in wide-spread long-term pollution, and long-term weather or volcanic conditions inhibiting transport links across key intercontinental routes. The authors have concluded that very few single cyber-related events have the capacity to cause a global shock. Governments nevertheless need to make detailed preparations to withstand and recover from a wide range of unwanted cyber events, both accidental and deliberate. There are significant and growing risks of localised misery and loss as a result of compromise of computer and telecommunications services. In addition, reliable Internet and other computer facilities are essential in recovering from most other large-scale disasters. Catastrophic single cyber-related events could include: successful attack on one of the underlying technical protocols upon which the Internet depends, such as the Border Gateway Protocol which determines routing between Internet Service Providers and a very large-scale solar flare which physically destroys key communications components such as satellites, cellular base stations and switches. For the remainder of likely breaches of cybsersecurity such as malware, distributed denial of service, espionage, and the actions of criminals, recreational hackers and hacktivists, most events will be both relatively localised and short-term in impact. Successful prolonged cyberattacks need to combine: attack vectors which are not already known to the information security community and thus not reflected in available preventative and detective technologies, so-called zero-day exploits; careful research of the intended targets; methods of concealment both of the attack method and the perpetrators; the ability to produce new attack vectors over a period as current ones are reverse-engineered and thwarted. The recent Stuxnet attack apparently against Iranian nuclear facilities points to the future but also the difficulties. In the case of criminally motivated attacks: a method of collecting cash without being detected. The vast majority of attacks about which concern has been expressed apply only to Internet-connected computers. As a result, systems which are stand-alone or communicate over proprietary networks or are air-gapped from the Internet are safe from these. However these systems are still vulnerable to management carelessness and insider threats. Proper threat assessment of any specific potential cyberthreat requires analysis against: Triggering Events, Likelihood of Occurrence, Ease of Implementation, Immediate Impact, Likely Duration, Recovery Factors. The study includes tables with worked examples of various scenarios There are many different actors and with varying motivations in the cybersecurity domain. Analysis and remedies which work against one type may not be effective against others. Among such actors are: criminals, recreational hackers, hacktivists, ideologues, terrorists, and operatives of nation states. Analysis of cybsersecurity issues has been weakened by the lack of agreement on terminology and the use of exaggerated language. An ―attack‖or an ―incident‖can include anything from an easily-identified ―phishing‖attempt to obtain password details, a readily detected virus or a failed log-in to a highly sophisticated multi-stranded stealth onslaught. Rolling all these activities into a single statistic leads to grossly misleading conclusions. There is even greater confusion in the ways in which losses are estimated. Cyberespionage is not a ―few keystrokes away from cyberwar‖, it is one technical method of spying. A true cyberwar is an event with the characteristics of conventional war but fought exclusively in cyberspace. It is unlikely that there will ever be a true cyberwar. The reasons are: many critical computer systems are protected against known exploits and malware so that designers of new cyberweapons have to identify new weaknesses and exploits; the effects of cyberattacks are difficult to predict –on the one hand they may be less powerful than hoped but may also have more extensive outcomes arising from the interconnectedness of systems, resulting in unwanted damage to perpetrators and their allies. More importantly, there is no strategic reason why any aggressor would limit themselves to only one class of weaponry.

#### ---Statistical data disproves the necessity of hegemony\*\*\*

Fettweis 2011

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

It is perhaps worth noting that there is no evidence to support a direct relationship between the relative level of U.S. activism and international stability. In fact, the limited data we do have suggest the opposite may be true. During the 1990s, the United States cut back on its defense spending fairly substantially. By 1998, the United States was spending $100 billion less on defense in real terms than it had in 1990.51 To internationalists, defense hawks and believers in hegemonic stability, this irresponsible “peace dividend” endangered both national and global security. “No serious analyst of American military capabilities,” argued Kristol and Kagan, “doubts that the defense budget has been cut much too far to meet America’s responsibilities to itself and to world peace.”52 On the other hand, if the pacific trends were not based upon U.S. hegemony but a strengthening norm against interstate war, one would not have expected an increase in global instability and violence. The verdict from the past two decades is fairly plain: The world grew more peaceful while the United States cut its forces. No state seemed to believe that its security was endangered by a less-capable United States military, or at least none took any action that would suggest such a belief. No militaries were enhanced to address power vacuums, no security dilemmas drove insecurity or arms races, and no regional balancing occurred once the stabilizing presence of the U.S. military was diminished. The rest of the world acted as if the threat of international war was not a pressing concern, despite the reduction in U.S. capabilities. Most of all, the United States and its allies were no less safe. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Clinton, and kept declining as the Bush Administration ramped the spending back up. No complex statistical analysis should be necessary to reach the conclusion that the two are unrelated. Military spending figures by themselves are insufficient to disprove a connection between overall U.S. actions and international stability. Once again, one could presumably argue that spending is not the only or even the best indication of hegemony, and that it is instead U.S. foreign political and security commitments that maintain stability. Since neither was significantly altered during this period, instability should not have been expected. Alternately, advocates of hegemonic stability could believe that relative rather than absolute spending is decisive in bringing peace. Although the United States cut back on its spending during the 1990s, its relative advantage never wavered. However, even if it is true that either U.S. commitments or relative spending account for global pacific trends, then at the very least stability can evidently be maintained at drastically lower levels of both. In other words, even if one can be allowed to argue in the alternative for a moment and suppose that there is in fact a level of engagement below which the United States cannot drop without increasing international disorder, a rational grand strategist would still recommend cutting back on engagement and spending until that level is determined. Grand strategic decisions are never final; continual adjustments can and must be made as time goes on. Basic logic suggests that the United States ought to spend the minimum amount of its blood and treasure while seeking the maximum return on its investment. And if the current era of stability is as stable as many believe it to be, no increase in conflict would ever occur irrespective of U.S. spending, which would save untold trillions for an increasingly debt-ridden nation. It is also perhaps worth noting that if opposite trends had unfolded, if other states had reacted to news of cuts in U.S. defense spending with more aggressive or insecure behavior, then internationalists would surely argue that their expectations had been fulfilled. If increases in conflict would have been interpreted as proof of the wisdom of internationalist strategies, then logical consistency demands that the lack thereof should at least pose a problem. As it stands, the only evidence we have regarding the likely systemic reaction to a more restrained United States suggests that the current peaceful trends are unrelated to U.S. military spending. Evidently the rest of the world can operate quite effectively without the presence of a global policeman. Those who think otherwise base their view on faith alone.

#### ---Empirical data concludes hegemony doesn’t prevent war.

Mearsheimer 2011

John J., R. Wendell Harrison Distinguished Service Professor of Political Science at the University of Chicago, The National Interest, Imperial by Design, lexis

One year later, Charles Krauthammer emphasized in "The Unipolar Moment" that the United States had emerged from the Cold War as by far the most powerful country on the planet.2 He urged American leaders not to be reticent about using that power "to lead a unipolar world, unashamedly laying down the rules of world order and being prepared to enforce them." Krauthammer's advice fit neatly with Fukuyama's vision of the future: the United States should take the lead in bringing democracy to less developed countries the world over. After all, that shouldn't be an especially difficult task given that America had awesome power and the cunning of history on its side. U.S. grand strategy has followed this basic prescription for the past twenty years, mainly because most policy makers inside the Beltway have agreed with the thrust of Fukuyama's and Krauthammer's early analyses. The results, however, have been disastrous. The United States has been at war for a startling two out of every three years since 1989, and there is no end in sight. As anyone with a rudimentary knowledge of world events knows, countries that continuously fight wars invariably build powerful national-security bureaucracies that undermine civil liberties and make it difficult to hold leaders accountable for their behavior; and they invariably end up adopting ruthless policies normally associated with brutal dictators. The Founding Fathers understood this problem, as is clear from James Madison's observation that "no nation can preserve its freedom in the midst of continual warfare." Washington's pursuit of policies like assassination, rendition and torture over the past decade, not to mention the weakening of the rule of law at home, shows that their fears were justified. To make matters worse, the United States is now engaged in protracted wars in Afghanistan and Iraq that have so far cost well over a trillion dollars and resulted in around forty-seven thousand American casualties. The pain and suffering inflicted on Iraq has been enormous. Since the war began in March 2003, more than one hundred thousand Iraqi civilians have been killed, roughly 2 million Iraqis have left the country and 1.7 million more have been internally displaced. Moreover, the American military is not going to win either one of these conflicts, despite all the phony talk about how the "surge" has worked in Iraq and how a similar strategy can produce another miracle in Afghanistan. We may well be stuck in both quagmires for years to come, in fruitless pursuit of victory. The United States has also been unable to solve three other major foreign-policy problems. Washington has worked overtime-with no success-to shut down Iran's uranium-enrichment capability for fear that it might lead to Tehran acquiring nuclear weapons. And the United States, unable to prevent North Korea from acquiring nuclear weapons in the first place, now seems incapable of compelling Pyongyang to give them up. Finally, every post-Cold War administration has tried and failed to settle the Israeli-Palestinian conflict; all indicators are that this problem will deteriorate further as the West Bank and Gaza are incorporated into a Greater Israel. The unpleasant truth is that the United States is in a world of trouble today on the foreign-policy front, and this state of affairs is only likely to get worse in the next few years, as Afghanistan and Iraq unravel and the blame game escalates to poisonous levels. Thus, it is hardly surprising that a recent Chicago Council on Global Affairs survey found that "looking forward 50 years, only 33 percent of Americans think the United States will continue to be the world's leading power." Clearly, the heady days of the early 1990s have given way to a pronounced pessimism.

## \*\*\*2NC

### \*\*\*SMR CP

### SMR CP/Space ! Turns

#### Humanity will survive for between 5,000 and 8 billion years: 95% confidence interval

Jason G. **Matheny**, **Research Associate at the Future of Human Institute at Oxford University**, **Ph.D. Candidate in Applied Economics** at Johns Hopkins University, holds a Master’s in Public Health from the Bloomberg School of Public Health at Johns Hopkins University and an M.B.A. from the Fuqua School of Business at Duke University, **2007** (“Reducing the Risk of Human Extinction,” *Risk Analysis*, Volume 27, Issue 5, October, Available Online at http://jgmatheny.org/matheny\_extinction\_risk.htm, Accessed 07-04-2011)

We have some influence over how long we can delay human extinction. Cosmology dictates the upper limit but leaves a large field of play. At its lower limit, humanity could be extinguished as soon as this century by succumbing to near-term extinction risks: nuclear detonations, asteroid or comet impacts, or volcanic eruptions could generate enough atmospheric debris to terminate food production; a nearby supernova or gamma ray burst could sterilize Earth with deadly radiation; greenhouse gas emissions could trigger a positive feedback loop, causing a radical change in climate; a genetically engineered microbe could be unleashed, causing a global plague; or a high-energy physics experiment could go awry, creating a "true vacuum" or strangelets that destroy the planet (Bostrom, 2002 ; Bostrom & Cirkovic, 2007 ; Leslie, 1996 ; Posner, 2004 ; Rees, 2003 ). Farther out in time are risks from technologies that remain theoretical but might be developed in the next century or centuries. For instance, self-replicating nanotechnologies could destroy the ecosystem; and cognitive enhancements or recursively self-improving computers could exceed normal human ingenuity to create uniquely powerful weapons (Bostrom, 2002 ; Bostrom & Cirkovic, 2007 ; Ikle, 2006 ; Joy, 2000 ; Leslie, 1996 ; Posner, 2004 ; Rees, 2003 ). Farthest out in time are astronomical risks. In one billion years, the sun will begin its red giant stage, increasing terrestrial temperatures above 1,000 degrees, boiling off our atmosphere, and eventually forming a planetary nebula, making Earth inhospitable to life (Sackmann, Boothroyd, & Kraemer, 1993 ; Ward & Brownlee, 2002 ). If we colonize other solar systems, we could survive longer than our sun, perhaps another 100 trillion years, when all stars begin burning out (Adams & Laughlin, 1997 ). We might survive even longer if we exploit nonstellar energy sources. But it is hard to imagine how humanity will survive beyond the decay of nuclear matter expected in 1032 to 1041 years (Adams & Laughlin, 1997 ).3 Physics seems to support Kafka's remark that "[t]here is infinite hope, but not for us." While it may be physically possible for humanity or its descendents to flourish for 1041 years, it seems unlikely that humanity will live so long. Homo sapiens have existed for 200,000 years. Our closest relative, homo erectus, existed for around 1.8 million years (Anton, 2003 ). The median duration of mammalian species is around 2.2 million years (Avise et al., 1998 ). A controversial approach to estimating humanity's life expectancy is to use observation selection theory. The number of homo sapiens who have ever lived is around 100 billion (Haub, 2002 ). Suppose the number of people who have ever or will ever live is 10 trillion. If I think of myself as a random sample drawn from the set of all human beings who have ever or will ever live, then the probability of my being among the first 100 billion of 10 trillion lives is only 1%. It is more probable that I am randomly drawn from a smaller number of lives. For instance, if only 200 billion people have ever or will ever live, the probability of my being among the first 100 billion lives is 50%. The reasoning behind this line of argument is controversial but has survived a number of theoretical challenges (Leslie, 1996 ). Using observation selection theory, Gott (1993) estimated that humanity would survive an additional 5,000 to 8 million years, with 95% confidence.

**We can live on earth forever.**

**Leslie 96** (John, is a philosopher who focuses on explaining existence. “T H E E N D O F T H E WORLD” Pg 145, Donnie)

Ozone layer destruction, greenhouse warming, the pollution crisis, the exhaustion of farmlands and the loss of biodiversity all threaten to cause immense misery. Yet they too might well appear unlikely to wipe out the entire human race, particularly since people could take refuge in artificial biospheres. Now, a few surviving thousands would probably be a sufficient base from which new billions could grow. The same can probably be said of global nuclear warfare. Artificial biospheres could maintain the human race if the remainder of the planetary surface became uninhabitable. Advances in nanotechnology might be very perilous. However, there is every hope that they wouldn’t be made before humans had moved far enough towards a single world government to be able to insist on safeguards. Furthermore, colonization of the entire solar system, and perhaps even of other star systems, would probably be progressing speedily when the nanotechnological revolution arrived—so that, once again, destruction of all humans on Earth wouldn’t mean the end of humans as a species.

#### The plan leads to preemptive strikes before we can colonize, turns the case

**IBT 11** (“Hoping to Contact Extraterrestrials? Think Again” <http://www.ibtimes.com/articles/201455/20110822/space-extraterrestrial-life-nasa-greenhouse-gas-planet-alien-destroy-humanity-nasa-global-warming.htm> //Donnie)

Aliens also could harm or destroy us if they believe we are a threat to other civilizations. Rapidly expanding civilizations may have a tendency to destroy other civilizations in the process, just as humanity has already destroyed many species on Earth. Though this scenario might seem unlikely given the likelihood of our technological inferiority relative to other civilizations, we would be at the receiving end if ET thinks that our resources could be used more efficiently to generate or retain other civilizations. Perhaps ETI is observing rapid and destructive expansion on Earth and could become concerned at our trajectory. ETI might prefer that our civilization change its ways to survive, but if it doubts that our course can be changed, it may seek to **preemptively destroy us to protect other civilizations** from us. A preemptive strike would be particularly likely in the early phases of our expansion **because a civilization may become increasingly difficult to destroy as it continues to expand**. "Humanity may just now be entering the period in which its rapid civilizational expansion could be detected by an ETI because our expansion is changing the composition of Earth's atmosphere (e.g. via greenhouse gas emissions), which therefore changes the spectral signature of Earth," the study's authors say, Human civilization affects ecosystems so strongly that some ecologists have begun calling this epoch of Earth's history the anthropocene, a new and unprecedented phase in the planet's history. **If the goal is to maximize ecosystem health, then perhaps it would be better if humanity did not exist**, or at least if it existed in significantly reduced form. Since at least some humans believe so, invoking universalist ethical principles, then it is likely that ETI might agree.

Space exploration brings new strains of space viruses.

Bruce K. **Gagnon 99** “Space Exploration and Exploitation” Global Network against Weapons and Nuclear Power in Space, http://www.space4peace.org/articles/scandm.htm

Potential dangers do exist though. Barry DiGregorio, author and founder of the International Committee Against Mars Sample Return, has written that "…any Martian samples returned to Earth must be treated as biohazardous material until proven otherwise." At the present time NASA has taken no action to create a special facility to handle space sample returns. On March 6, 1997 a report issued by the Space Studies Board of the National Research Council recommended that such a facility should be operational at least two years prior to launch of a Mars Sample Return mission. Reminding us of the Spanish exploration of the Americas, and the smallpox virus they carried that killed thousands of indigenous people, DiGregorio warns that the Mars samples could "contain pathogenic viruses or bacteria." There are vast deposits of mineral resources like magnesium and cobalt believed to be on Mars. In June of 1997, NASA announced plans for manned mining colonies on Mars, expected around 2007-2009. The mining colonies, NASA says, would be powered by nuclear reactors launched from Cape Canaveral, Florida. NUKES IN SPACE Nuclear power has become the power source of choice for NASA. Not only has NASA, and the Department of Energy (DoE), been promoting the use of nuclear power for on-board generators for deep space missions, but there is growing evidence that the space exploration and exploitation "adventure" will soon be awash in nuclear materials. According to Marshall Savage, the founder of the First Millennial Foundation (a pro-space colonization organization), "We really can’t mess up the Moon, either by mining it or building nuclear power plants. We can ruthlessly strip mine the surface of the Moon for centuries and it will be hard to tell we’ve even been there. There is no reason why we cannot build nuclear power plants on the Moon’s surface with impunity. Equipped with limitless nuclear, the lunar civilization will be capable of prodigious rates of economic growth." One cannot help but wonder what would happen to the poor Moon miner who becomes contaminated by radioactive dust after removing his irradiated space suit inside the lunar habitat. There is a growing call as well for the nuclear rocket to Mars. Already work is underway on the project at Los Alamos Labs in New Mexico and at the University of Florida Nuclear Engineering Department. In his Space News op-ed called Nuclear Propulsion to Mars, aerospace industry engineer Robert Kleinberger states that the nuclear rocket "could be used for defending U.S. space systems, reboosting the International Space Station, returning to the Moon for exploration or mining, and for exploring and opening the inner solar system to scientific research. The nuclear vehicle could even assist in the eventual colonization of Mars." In fact, there is such a growing demand for plutonium for "space projects" that the DoE is now undertaking an internal review of its production process. The DoE is considering re-opening plutonium processing lines at such facilities as Hanford in Washington state, a site that has created enormous contamination during its years of bomb making. GET RID OF SPACE LAW? One of the current obstacles to NASA and corporate plans for exploitation of the Moon and Mars is the existence of United Nations (U.N.) laws like the Moon Treaty. Much of the Moon Treaty reiterates earlier and internationally accepted "space law," particularly the Outer Space Treaty of 1967. In that treaty, in Article 11, the U.N. states that "the Moon and its natural resources are the common heritage of mankind." Former Apollo astronaut Harrison Schmitt, a key proponent of Moon mining for helium 3, has called the Moon Treaty "Not a wise idea". He wrote in a July 1998, Space News article that "the mandate of an international regime would complicate private commercial efforts and give other countries political control over the permissibility, timing and management of all private commercial activities." Efforts are now underway at several levels to rid the world of pesky and restricting international law that would hamper corporate access and control of "untold riches" in space. Lawrence D. Roberts, a member of the National Space Society Policy Committee wrote in that organization’s magazine, Ad Astra, in 1997 that "If the Outer Space Treaty is to be adhered to, and the international fallout from a new standard is to be minimized, some kind of international approach is needed. By limiting the number of states involved in the process, the prospects for a rapid agreement are dramatically improved…. It may even be possible to accelerate the timetable by promoting federal legislation that sets the standards for property claims in advance of any international agreement." A BAD SEED Just as Queen Isabella sent in the Spanish Armada to protect the new found territory and resources of the New World, so too is the U.S. moving in a similar way. The Pentagon, through the U.S. Space Command, is working hard to ensure that the space corridor will remain open and free for private corporate interests. Weapon systems such as nuclear powered lasers and anti-satellite (ASAT) weapons are now being funded, researched, and tested in the U.S. It will only be a matter of time until deployment of space based weapons will follow. In the Space Command’s document, Vision for 2020, they state that "Historically, military forces have evolved to protect national interests and investments – both military and economic. During the rise of sea commerce, nations built navies to protect and enhance their commercial interests. …The control of space will encompass protecting U.S. military, civil and commercial investments in space…. Control of space is the ability to assure access to space, freedom of operations within the space medium, and an ability to deny others the use of space, if required." A parallel, military highway will be created between the Earth and the planets beyond. Documents commissioned by the U.S. Congress suggest that U.S. military bases on the Moon will enable the U.S. to control access to and from the planet Earth. The logo of the U.S. Space Command is "Master of Space." We are now poised to take the bad seed of greed, environmental exploitation and war into space. Having shown such enormous disregard for our own planet Earth, the so-called "visionaries" and "explorers" are now ready to rape and pillage the heavens. Countless launches of nuclear materials, using rockets that regularly blow up on the launch pad, will seriously jeopardize life on Earth. Returning potentially bacteria-laden space materials back to Earth, without any real plans for containment and monitoring, ***could create new epidemics*** for us. The possibility of an expanding nuclear-powered arms race in space will certainly have serious ecological and political ramifications as well. The effort to deny years of consensus around international space law will create new global conflicts and confrontations.

New diseases result in extinction.

**Souden 2k**, David: former Research Fellow in History at Emmanuel College, Cambridge, consultant to the Cambridge Group for the History of Population and Social Structure [“Killer Diseases,” Factsheet, http://darrendixon.supanet.com/killerdiseases.htm]

Nature's ability to adapt is amazing - but the consequences of that adaptation are that mutations of old diseases, we thought were long gone, may come back to haunt us. But of all these new and old diseases, AIDS poses the greatest threat. It has the capacity to mutate and evolve into new forms, and the treatments that are being developed have to take account of that. Yet the recent history of life-threatening and lethal diseases suggests that even if we conquer this disease, and all the others described here, there may be yet another dangerous micro-organism waiting in the wings. The golden age of conquering disease may be drawing to an end. Modern life, particularly increased mobility, is facilitating the spread of viruses. In fact, some experts believe it will be a virus that leads to the eventual extinction of the human race.

**Space col causes asteroid terrorism – extinction**

Clifford E. Singer, professor of nuclear engineering and director of the Program in Arms Control, Disarmament, and International Security at the University of Illinois at Urbana—Champaign, Spring 2001, Swords and Ploughshares, http://www.acdis.uiuc.edu/homepage\_docs/pubs\_docs/S&P\_docs/S&P\_XIII/Singer.htm

However the technology to build isolated extraterrestrial settlements naturally brings along with it another potentially powerful technology–the ability to move sizeable asteroids. Back in 1979 it was shown that this is not as difficult as one might at first think. The requisite technique is to land a spacecraft on one asteroid, dig up material and throw it the path of another asteroid that will approach nearby, and perturb the orbit of that asteroid until it passes nearby another large object. Once an asteroid or comet makes a controlled approach near any planet but Mercury or Pluto, then it can easily be directed near or at the earth at enormous velocity. Fortunately for our hypothetical descendants here destroying all human life on earth by asteroid impact would likely require moving objects with a diameter in excess of ten kilometers. While there are many of these, the required orbit perturbation would require a lot of lead-time and work and could be very difficult to motivate and conceal. Nevertheless with contributions from this technology a dispute between the earth and a handful of its fragile far-flung offspring in space that is carried to the extreme could conceivably lead to human extinction. Only when settlements in space are sufficiently numerous or far flung would such a possibility effectively be ruled out, primarily by physical considerations.

**Space colonization doesn’t solve war – replicates the earths problems and makes conflicts more likely**

Lamb 01 [David Lamb, honorary reader in philosophy and bioethics at the University of Birmingham, 2001, The Search for Extraterrestrial Intelligence, p. 117]

2 There is also an objection that human efforts to transform Earth have resulted in a catalogue of man-made disasters and unforeseen catastrophes. How much worse would it be if we started in an environment of which we know less than we do of Earth? Something might go wrong, leaving things even worse off with regard to the planet’s ability to foster life. There might even be repercussions on Earth. 3 The fact that terraforming is a long-term project would act as a disincentive to governments with regard to investment. Moreover, scarce human talent and resources would be diverted from worthy projects on Earth, such as social and environmental problems. 4 If terraforming and hence colonization are successful, they would not divert resources away from warfare: on the contrary, wars would very likely be fought over the new territory; and military uses of the new colonies would simply extend the arena for socio-political problems.

### \*\*\*Kritik

### FW

#### ---Energy policy scenario planning is a naïve and depoliticized rhetorical device originating in the 1960s when a think tank working for Shell oil first envisioned a unified energy market spanning across multiple fuel sources. Affirmative predictions will fail because they’re designed as a therapeutic device to defer anxiety onto the future, not engage real political structure.

Sumrell & Varnelis 2009

Robert, production designer, educator, writer & teaches at the Columbia University Graduate School of Architecture, Planning, and Preservation, Kazys, Director of the Network Architecture Lab at the Columbia University Graduate School of Architecture, Planning, and Preservation, Personal Lubricants: Shell Oil and Scenario Planning, New Geographies 2: Landscapes of Energy, pg 127-132

Suddenly, everything's grim. In the face of the current global environmental and financial crisis, the future no longer promises boundless economic growth and technological innovation, but resembles a strangely familiar landscape fraught with potential danger and imminent collapse. lf green shoots offer hope, only the most naive proceed with the reckless abandon of previous years. Global economic crises-like the Great Depression and the stagflation of the late 1960s and early 1970s-are tied to the internal contradictions of capitalism; overinvestment and overproduction produce an unsustainable bubble that eventually bursts. After a crash, overproduction typically inspires a shift in planning from the physical to the temporal. Realizing that it did not plan ahead properly, society concerns itself not with designing and producing things but rather with drawing up plans to safeguard that such crises do not recur in the future. Manfredo Tafuri observes that during the Great Depression, such a shift forced the avant-garde to understand that only economic planning, not physical planning, could cure the problems of modern life: "architecture as the ideology of the Plan is swept away by the reality of the Plan the moment the plan came down from utopia and became an operant mechanism."lTafuri himself wrote in 1969, at the staft of the second great crisis of the twentieth century, a new era of limlts when modern architecture itself was called into question. As architects turn, once again, to temporal planning, we need to come to an understanding of the deeper significance of such methodologies. ln this essay, we examine the history of one such approach, scenario planning. By the postwar era, Royal Dutch/Shell Oil was a diverse body of allied companies with stakes in oil, natural gas, hydrocarbons, petrochemicals, agriculture, and plastics. Under the planned economy of high Fordism, a long sustained boom led to an explosion of automobile ownership and use that drove huge growth for Shell. As one of the “Seven Sisters,” Shell was one of the world’s largest petroleum companies, but it was also the smallest of these and chronically extracted more oil than it added to its reserves. Shell realized it needed a strategy to direct its future growth. Since the end of World War II, both the price of oil and the growth in demand had been remarkably stable, and few oil executives had the foresight to imagine that things would ever change. By the late 1960s, Shell had developed a complex forecasting tool called the Unified Planning Machinery to predict growth in energy demand and upcoming oil prices. UPM-derived strategy used previous sales and cost projections to anticipate the price of crude and demand in detail for one year and more generally for six years. Using that information, the company could generate strategies for investment in infrastructure as well as for trade. Although the UPM was effective when crude prices were stable and demand was steadily rising, it was not flexible enough to anticipate adverse events that could affect the company outside of its general business operations. By the early 1960s most senior Shell executives had experience only with a long economic boom, but threats were mounting. Not only was overproduction looming, but also overt European colonialism was coming to an end and with it, the loss of Western control over oil reserves in the developing world. Realizing that even in this time of growth, the landscape was quickly changing, some employees of the Shell planning department – among them Ted Newland – sought more flexible methods of planning for uncertainty in the future, and turned to the scenario planning methods devised by Herman Kahn and the Hudson Institute. A decade before, at the RAND Corporation, Kahn began using systems theory and game theory to model the effects of massive nuclear war between the United States and the Soviet Union. Kahn did not just employ standard projections. Instead, he wrote multiple histories of near future events as if from a more distant future vantage point. Instead of accurate forecasts, however, Kahn sought to write compelling fictions demonstrating threats and opportunities together with the means by which his audience could anticipate them. These scenarios, Kahn believed, served as myths for the modern day. Literary qualities were so important to Kahn that later, at the Hudson Institute, he hired novelist William Gaddis to rewrite the institute’s reports. To describe such stories, Leo Rosten, another writer who freelanced at RAND, suggested the term “scenario,” a poetic but antiquated term that Hollywood employed to refer to screenplays during silent movie days. Kahn loved the term precisely for its evocation of poetry and myth-making. The two decades at the state of the Cold War were marked by a fervent interest in the future. Science fiction of this era was generally optimistic about our ability to solve problems with technology. By the late 1950s, however, sharp advances in everyday technology, a proliferation of commercial goods, and futuristic military and space technologies closed the gap with science fiction. Modernization was complete. If this diluted modernism permeated everything. Utopian projections were no longer plausible. It was time to envision the future again, outside of Utopia, this time not as a radically different whole but from the contemporary condition or even from an imagined past. Still, the Cold War was a time of deep instability and individuals needed fantasy to comprehend the difficulties of the world. Carl Jung’s practice of analytical psychology became popular, especially in art and literature, offering a system of archetypes and the symbolic use of dreams, fairly tales, and myths to comprehend the world. Also during this period, J. R. R. Tolkien completed The Lord of the Rings trilogy while C. S. Lewis wrote The Chronicles of Narnia. Together, both works established the modern genre of fantasy writing while making clear the importance and difficulty of epic struggles between good and evil. Similarly, Walt Disney left behind the familiar, comical animated adventures of Mickey Mouse, Goofy, and Donald Duck for the more romantic visions of Cinderella and Sleeping Beauty, fairy tales he appropriated from the Brothers Grimm. The potential of nuclear war threatened to end the future itself, a possibility made vivid by Nevil Shute, an aeronautical engineer, in his 1957 On the Beach. Shute described the effects of fallout after a massive war on the last survivors as devastating and inevitable, yet did so without any great expression of emotion: characters generally took pleasure in small things and waited for the end. Kahn found On the Beach an “interesting, but badly researched book.” Still, the novel broke new ground by imagining what had previously been deemed to horrible to think. Under President Dwight D. Eisenhower and Secretary of State John Foster Dulles, U.S. nuclear policy was based on the idea that the country’s capability for massive retaliation with nuclear weapons made both conventional and limited nuclear war unthinkable for the Soviet Union. Using game theory to prove his point, Kahn argued otherwise. First, he suggested that the policy of massive retaliation encouraged the Soviet Union to launch a first strike to disable the United States’ ability to strike. Second, he argued that when pressed, neither country would engage in all-out war and, even if they did, life-and with it, warfare-would continue afterward, however damaged. As forecasting life past a nuclear holocaust was considered unthinkable at the time, Kahn called his projections "thinking the unthinkable"' He concluded that the United States should avoid threatening nuclear war, ensure a second-strike capability to adequately deter further aggression, and draft plans for continuing war after a nuclear exchange. Kahn's 1961 book, On Thermonuclear War, galvanized both policymakers and the public. Kahn's projections compelled John E Kennedy's Secretary of Defense Robert McNamara to shift U. S. military strategy to the doctrine of Mutual Assured Destruction, which relied on a second-strike capability. In part, Kahn's success was due not only to his argument but also to his intense but comic presentation style. Kahn would frequently joke about nuclear war to get the audience's attention and keep them listening. Many, however, were disturbed by the very topic and outraged by Kahn's propensity to joke about nuclear war. A rival military strategist at RAND, Bernard Brodie, advocated massive retaliation, believing it necessary to keep nuclear war unthinkable. For him, Kahn's project was grotesque, an improper coupling: "Something [was] illegitimately in something else ...Things that should be kept apart [were] fused together." ln contrast, the founder of communitarianism, Amitai Etzioni, applauded him: "Kahn does for nuclear arms what free-love advocates did for sex: he speaks candidly of acts which others whisper behind close doors.” As Etzioni observed, horror and disgust at thinking the unthinkable galvanized opposition to nuclear war. Stanley Kubrick would echo Kahn's tactics in his 1964 black comedy, Dr. Strangelove, or: How I Learned to Stop Worrying and Love the Bomb, even as he immortalized Kahn as (at least a partial inspiration for) the character of film's Dr. Strangelove.l0 The Limits to Growth Amid growing tensions with RAND, Kahn left and founded the Hudson lnstitute. There, he investigated nonmilitary futures and honed a doctrine of futurology that posited unending growth for capitalism and technology.tl The first decade of work at the Hudson lnstitute culminated in the 1967 book, The Year 2000: A Framework for Speculation on the Next Thirty-Three Years, set out to identify the challenges faced by the United States from a changing geopolitical context and the transitions to a postindustrial society. Soon, The Year 2000 began to circulate at Shell and with it the idea that the world's demand for oil would rise exponentially by the end of the century. Beginning in the late 1960s, Shell's London based planning group, led by Ted Newland and Pierre Wack, began generating scenarios to understand risks-both political and general. Newland and Kahn soon became friends. After successfully convincing Shell's Committee of Managing Directors that the UPM could not adequately cope with such changes, Newland assembled a team to generate scenarios.1 ln 1971, Newland was joined in Shell's Planning Department by Pierre Wack. Trained as a public administrator, Wack was a disciple of the mystic G. l. Gurdjieff during World War ll. Gurdjieff believed that people lived their lives in a state close to somnambulism and sought to teach his disciples how to wake up and see the world. One way of doing this. Gurdjieff suggested, was to seek out "remarkable peoplel'r3 Similarly, Wack believed that turning to conventional sources was a mistake, as they were already well known to the stakeholders involved. He found one of these remarkable people in Kahn, whose writings he had become acquainted and whom he had visited at the Hudson lnstitute.14 To understand the fate of oil in the year 2000, Newland assembled a team in Shell's Group Planning division to map the risks by developing six initial scenarios. Unlike Kahn, the scenario planners at Shell sought not the big picture but rather a focused vision of the future for oil. Even more than Kahn's faith in the powers of scenarios as fictional devices, Wack and Newland believed in the mythological role of scenarios that had the compelling and memorable qualities of fairy tales. Shell planner Arie de Geus would write "ln the telling ..., the story line becomes stronger. Scenarios act as a signal-to-noise filter. The driving forces sharpen. The events depicted enter the mind with less background noise and thus with a stronger profile and clearer outlines."ls One scenario focused on the changing ownership of energy supplies. Prior to the foundation of the Organization of Petroleum Exporting Countries (OPEC) in the 1960s, oil reserves were divided among three regions, the United States (which had import restrictions), the self-sufficient communist world, and everywhere else, known simply as the "international oil industry" or "the World Outside the Communist Area and North America" (WOCANA).16Within the WOCANA nations, national interests owned only 8 percent of their crude oil, with the rest owned by the Seven Sisters as well as a few aspiring independents. lt quickly became clear to Wack and Newland that the oil industry could lose its control over oil prices in many of the WOCANA nations. Shell's directors agreed that a crisis in oil production would come, but were unwilling to break with the path followed by the oil companies and stuck steadfastly to UPM projections. Wack was disturbed by this and realized that their scenarios were too prosaic. Scenarios had to, he concluded, make it possible to "change our managers' view of reality."l7 ln other words, scenario planning was important less as an analytical tool and more as a rhetorical device. Scenario planning, Peter Schwartz writes, merely allows people to see what they are blind to.18 A successful scenario, he explains, "resonates in some ways with what they already know, and then leads them from that resonance to reperceive the world."19 De Geus himself explains that scenario planning served as a form of transitional object, a term that he borrowed from psychoanalyst D. W. Winnicott.2o For Winnicott, the transitional object designated "the intermediate area of experience, between the thumb and the teddy bear, between the oral erotism and the true object-relationship, between primary creative activity and projection of what has already been introjected." Not necessarily a thing at all, the transitional object is more often an action, a sound, or some other phenomena. As an intermediate condition, it provides a means by which the child moves from an oceanic phase to a grasp of the world and consciousness.2l But instead of a fetish, over time, such objects would be decathected, relegated to limbo after losing their meaning. Winnicott suggested that such objects "diffused...spread out over the ... whole cultural field!'z2 Here Winnicott could suggest a return: "lt is assumed here that the task of reality acceptance is never completed, that no human being is free from the strain of relating inner and outer reality, and that relief from this strain is provided by an intermediate area of experience ... which is not challenged (arts, religion, etc.).This intermediate area is in direct continuity with the play area of the small child who is 'lost' in playl'23Thus for de Geus scenario planning served not so much to anticipate the future as to stimulate thought about it. Even after processing the scenarios. Shell did not anticipate an energy crisis from the seller's market before 1980 because of long-term contracts the major oil producers had signed with OPEC.24 Still, based on the results of the Year 2000 study, Shell diversified, expanding into coal and nuclear power generation and metal production. Shell made many aspects of its scenarios public, thus launching an international discussion on the looming "oil crisis." In America, there was reason for concern. The country's rapid economic growth during the preceding decades meant that internal oil production had not kept pace with demand, peaking in 1970. Although there was still oil within the country's borders, bringing it to the surface was not as cost effective as importing it. To ensure that the growing demand would continue to be met, the U.S. government slowly reduced its restrictions on imported oil until it finally abolished them in 1973, deepening American reliance on foreign oil.25 ln the ten years following 1968, oil imports to the United States increased 193 percent while domestic oil production dropped 3 percent. Both Shell and the industry were aware of this possibility decades beforehand. ln 1956, Marion King Hubbert, a geophysicist working in Shell's Houston office, predicted that the United States would reach peak oil production between 1965 and 1970 while the world would do so around the year 2000.26 Hubbert's predictions were deeply unpopular, so much so that after Shell's head office learned that he would be presenting his research at the American Petroleum lnstitute, representatives called to ask him to withdraw his presentation.2T Since it would have required a massive shift away from existing investments, Hubbert's work was simply too dramatic for oil companies to take seriously. Although Hubbert was ignored by Shell and the industry, the idea of a resource-limited future steadily became more acceptable. A group of public officials, economists. and scientists met in Rome in 1968 to examine the future broadly.They published their results in 1972 asThe Limits to Growth. Like Hubber1, the authors of the study concluded that global resource extraction-not only of oil, but also of many crucial metals-would peak around the year 2000. The Limits to Growth questioned the viability of the current rate of consumption of the planet's resources.28 For Shell, The Limits to Growth meant that the environmental question was no longer a set of localized issues and reactions but rather a global problem that affected the company's public image. By making public Newland and Wack's Year 2000 study, Shell appeared to be in the forefront of such thinking, but they still underestimated how quickly change would happen. The Arab-lsraeli crisis of 1973 triggered the anticipated crisis over non-Western controlled oil. The result was an increase in the price of a barrel of oil from $2.90 in September to $5.10 in December to $11.65 on January 1, 1974.30 The new geopolitical landscape prompted the U.S. government to seek new means of conservation and alternative energy sources to prevent American dependency on foreign oil. The potential drop in demand, it became clear, could be as dangerous to an oil company's bottom line as any threat from overseas. Shell's scenarios did not predict the events of the OPEC energy crisis or how soon a crisis would take place, but as their scenarios suggesting a potential shift of power in oil resources had been made public prior to the crisis unfolding, the company appeared to have anticipated it.31 Even though no specific management decisions could be directly attributed to Shell's use of scenarios, scenario planning was a convenient means of fostering an image of Shell as having anticipated the future.3 lmpressed by the relevance of theYear 2000 scenarios, Shell continued to employ the scenario plan strategy, and by 1977 the planning group was running a number of scenarios including one focusing on lran, where much of the Seven Sisters' remaining oil supply was located. Within the scenarios, they anticipated that growing fundamentalist sentiments could bring a shift in power, upsetting the region and possibly turning it against the West, thus causing a steep rise in oil prices.33 Again, sooner than Shell expected, events unfolded that caused a second oil crisis. The 1979 lranian revolution and the subsequent lran/lraq war caused barrel prices to double.3a Shell had already been looking to diversify its holdings further and pursue new sources of oil, particularly to offshore deposits identified in the 1960s. Until this second price spike, many of these options were too expensive to develop. The new oil prices made offshore drilling profitable, and soon Shell focused much of its attention to the offshore industry and construction of new types of rigs and platforms.35 This was widely perceived as Shell's second success with scenarios. Shell had risen from the least profitable to the most profitable of the Seven Sisters. The planning department was widely integrated into the corporate and management structure. Any major new projects taken on at Shell had to be run successfully against all of the ongoing scenarios, thereby attempting to guarantee that new plans would have as much success as possible, regardless of the way events unfold.36 The third oil crisis occurred as a combination of massive investments in supply infrastructure in the 1970s and cutbacks in demand due to energy conservation. ln 1986, prices collapsed and stayed low for some twenty years.37 Still, Shell's 1985 "Oil Price Collapse" scenario anticipated the drop, allowing the company to immediately put its most expensive exploratory projects on hold while developing new technologies such as three-dimensional seismic technology and horizontal drilling to more efficiently produce oil from mature fields and existing wells. Through the scenarios, Shell also anticipated the opening and deregulation of global markets.3s At the same time, the scenario team began to feel pressure to prove its own strategic value. The link to corporate success and the planning department's work was not quantifiable. Many managers could not fully understand the group's value. While Shell's executives acknowledged the accuracy of many of the Shell scenarios, they nevertheless saw the program as expensive and wasteful. By design, most of the scenarios developed by the group would never unfold in real life, and it was impossible to tell whether the planning department's ideas were actually having any effect on the decision-making process of management.39 For every valuable fiction scripted, there were many scenarios that would never come to pass-indeed one of the reasons that Hubbert's peak oil had been discounted was that such predictions had been made for decades beforehand- producing unrecouped expenses. Yet some scenarios proved misleading. Only a few years before, acting on the advice of scenario team, Shell entered into the nuclear and coal industries. Neither venture proved successful, both were controversial, and eventually Shell abandoned them.a0 ln 1986 de Geus began to reexamine and audit the planning department's strategies. As a result, the planning team turned toward the idea of Shell as a learning company, setting up a computer conferencing system among scenario planners while enlisting Stewart Brand, the founder of The Whole Earth Catalog, to organize a series of "learning conferences" that drew heavily from countercultural influences, cybernetics, systems theory, and computer technology. During the 1990s, the culture at large turned toward hopefulness about the impact of impendlng technological advances on the proximate future. The crisis model upon which many of the earlier scenarios depended had eased and the focus changed to seizing opportunity in emerging global markets and new technologies. So, too, as the internet made vast quantities of information easily available, it became difficult for investors to believe that anyone could produce genuinely new knowledge. Scenario planners turned inward, codifying their methodology; Peter Schwaftz. Kees van der Heijden, and Arie de Geus all released books on the methodology of scenario planning, arguing for its deployment in both professional decisions and everyday life. At this point, scenario planning was sold not as something done by a select group of remarkable people but rather as a technique that everyone could employ for personal growth and advancement, a strategy for an uncertain but rapidly expanding marketplace. There ls No Alternative Throughout the 1990s, Shell's scenarios focused on the concept "There ls No Alternative" (TINA). An echo of Francis Fukuyama's "The End of History and the Last Mani' TINA projected the increasing liberalization and globalization of markets together with a greater decline in the power of national interests and more reliance and dependence on new technology. a1 As neoliberal government policies spurred on deregulation, new financial instruments began to serve the function of scenarios, helping companies and investors guard against unforeseen conditions. Through tradable futures, options, derivatives, credit default swaps, and hedge funds, the future itself could be marketed and commodified.a2 Since 2001 , a steady stream of crises have come to pass that have radically shaken public faith in the market economy and Shell's own confidence in theTlNA concept. First, the terrorist attacks of September 11 , 2001 , growing tensions in the Middle East, and the lraq War threatened the illusion of relative peace, reliability of foreign oil supply, and free rein for globalization. Second, Shell faced scandal in 2004. Because investment depends on future returns, truthful disclosure of a company's assets is a prerequisite. Shell, however, overstated its reserves by 20 percent, prompting widespread outrage among investors.43The reality of the future undid its fiction. Combined, these threats prompted a reevaluation of TINA known as "There Are No ldeal Answers" (TANIA) to confront the need to transition to a sustainable source of energy. Scenario planning does not focus on the future but rather on the present. Peak oil, global warming, and the fragility of speculative bubbles are imminent threats. But the massive capital already invested by companies like Shell in existing infrastructure makes it impossible for them to abandon standard industry practices, even if they know that the consequences of business as usual will be dire once things hit a tipping point. Like fairy tales, scenarios present carefully crafted stories that indirectly illustrate the dangers of the world to an audience that isn't ready for them. They allow us to prepare for the future, even if we feel powerless against the forces of the world around us, by providing a context for speaking about the unspeakable. The lessons of fairy tales are gentle and distant, they may only make sense later, when the codified dangers from the stories appear in reality. This helps preserve a childlike naiveté and enables the continued drive toward pleasure in the face of fear and doubt. As Bruno Bettelheim wrote: "The figures and events of fairy tales also personify and illustrate inner conflicts, but they suggest ever so subtly how these conflicts may be solved, and what the next steps in the development toward a higher humanity might be. The fairy tale is presented in a simple, homely way; no demands are made on the listener. This prevents even the smallest child from feeling compelled to act in specific ways, and he is never made to feel inferior. Far from making demands, the fairy tale reassures, gives hope for the future, and holds out the promise of a happy ending." By providing a forum where fear and anxiety can both be discussed, fairy tales provide listeners with a sense of importance, even if they do not yet have agency.46 ln Beyond the Pleasure Principle, Sigmund Freud hypothesized that since organisms come into being from a plenum of inanimate matter, they carry with them the death drive or "pleasure principle” a desire to return to this undifferentiated state. lf, however, the organism responds with an "influx of fresh amounts of stimulus" through a traumatic event, it can awake again and go on living or, if the stimulus is strong enough, reproduce.4T In this light, scenario planning functions more as a rhetorical device and therapy than as a method of planning or accurate forecast. The shock of the actual event is necessary to allow change to occur. But scenario planning allows participants to continue playing even though they know better. Like psychoanalysis, there is no end or goal to the process of gaming; its value is the sensation that comes from playing the game.

### Energy Prediction

#### ---Energy scenario predictions fail --- The reliance on empirical correlation is empirically unable to anticipate change or predict deviations in production trajectory --- Reject their impact analysis as a form of ideological blackmail that limits our response to business as usual because it can’t imagine anything different.

Labban 2010

Mazen, Preempting Possibility: Critical Assessment of IEA’s *World Energy Outlook 2010*, International Energy Agency, World Energy Outlook 2010, Paris: International Energy Agency, http://www.academia.edu/1424109/Preempting\_Possibility\_Critical\_Assessment\_of\_the\_IEAs\_World\_Energy\_Outlook\_2010

Growing uncertainty about energy markets following the crises of the 1970s boosted long-term energy forecasting as a planning device to prepare for an increasingly unpredictable future, on one hand, and as a techno-scientiﬁc(read: politically neutral and respectable) support for public policies ostensibly aimed at increasing energy security and environmental protection, on the other. Long-range forecasts, however, have invariably failed to produce accurate predictions about all aspects of energy markets: primary energy supplies, energy substitutions, the relative shares of different fuels in the energy mix, aggregate and sectoral energy demand, as well as carbon emissions. 6 Because they rely on trend projections, forecasts also rely on an assumption that the future is a smooth, gradual extension of the present at a constant rate with no structural changes or major interruptions or aberrations. They also rely on empirical correlation rather than causality and cannot therefore explain underlying forces that drive demand, price, etc. **Thus forecasts cannot predict a future that looks very different from the present, let alone explain how possible futures might unfold, which makes them useful only in short-term, business-as-usual projections**. Because of such inherent limitations, which prevent forecasts from accurately predicting long-term technical developments, capital markets and investment climates, let alone even more unpredictable processes such as government policies and geopolitical conﬂict, energy analysts, including the economists at the IEA, have shifted from long-range predictive forecasts towards more normative scenario building in the analysis of long-range energy-related developments. This technical move has a political dimension that is worth pondering in order to shed critical light on the signiﬁcance of the WEO 2010 scenarios. Scenario analysis has its origins in corporate and military strategic planning. 7 It was developed by Herman Kahn at the RAND corporation in the1950s — to help the US Air Force think about ‘the unthinkable’ — and pioneered by Shell in the early 1960s, initially as an internal communications vehicle, to help the company respond more readily to unexpected develop-ments in energy markets that might affect the price of oil. Whereas forecasts predict what is most likely to happen in the future given current trends and projections, scenarios contemplate what is possible if certain choices are made from within a hypothetical range of possibilities which typically includes a reference case describing what would happen if no action is takento alter the existing state of affairs in any fundamental manner. For this reason, scenarios not only describe hypothetical futures but must also prescribe pathways and roadmaps, policies and actions, and identify ways and meansto arrive at a desirable future and avoid undesirable fate. Unlike forecasts,in which the future is determined by projections of current trends, scenar-ios assume a less deterministic development that allows subjects to makechoices and whose agency, not the correlation of empirical facts, determines possible futures. Scenarios are ‘desiring machines’, to borrow a term from Deleuze and Guattari (1983): at the same time that they produce the desired future, they also produce the subject and mechanism by which to actualize it. This occasionally operates in the form of blackmail: coercing action in the present by showing the dire consequences of not acting.

Despite obvious differences and assertions to the contrary, energy scenarios are one type of predictive forecast which, however, does not treat current circumstances and trends as immutable, therefore allowing itself ﬂexibility in projecting into the future (and an about-face if the future turns out differ-ently) in order to effect change in the present. For one, energy scenarios rely on forecasts about economic growth, population growth, energy demand, production and generation capacities, prices and costs, etc., hence the possibilities they construct are based on a set of predictions. Also, forecasting is often negatively implicit in scenario analysis. The authors of WEO 2010, as of other Outlooks, are adamant that their scenarios are not forecasts. Yet, all three WEO 2010 scenarios are forecasts about the state of the global economy in that they assume continued economic growth. They also assert that no matter what it will look like, the future is certainly not going to look like the present because WEO 2010 predicts that governments will act on their policy promises, no matter how weakly, and in predictable manner: ‘it is certain that energy and climate policies in many — if not most — countries will change, possibly in the way we assume in the New Policies Scenario’(p. 62). Thus, eliminating the abominable which is also impossible, WEO 2010 scenarios lay out two alternative futures that differ only quantitatively — one desirable, the other ‘realistic’, or likely. The possible becomes what ensues from action according to the scenario’s prescriptions or from absolute lack of action and this is effected by actualizing future events and processes that may or may not occur, depending on what course of action governments take or fail to take in the present. Scenarios limit what is possible to what is desirable for their authors, or to its exact opposite, and exclude possibilities that do not fall within this range. At the moment that scenarios produce possibilities they negate the very notion of possibility.x

### Pan

#### ---Err negative in the face of their link defense --- Even if China presents a “real security threat,” the Affirmative’s methodology can only produce an American construction of Chinese “otherness.” The link is not “you securitize China” but rather their attempt to objectively proscribe Chinese motivations.

Pan 2004

Chengxin, PhD in Political Science and International Relations and member of the International Studies Association, Alternatives: Global, Local, Political, Vol. 29 Pg. 305-307

By now, it seems clear that neither China's capabilities nor intentions really matter. Rather, almost by its mere geographical existence, China has been qualified as an absolute strategic "other," a discursive construct from which it cannot escape. Because of this, "China" in U.S. IR discourse has been objectified and deprived of its own subjectivity and exists mainly in and for the U.S. self. Little wonder that for many U.S. China specialists, China becomes merely a "national security concern" for the United States, with the "severe disproportion between the keen attention to China as a security concern and the intractable neglect of China's [own] security concerns in the current debate."62 At this point, at issue here is no longer whether the "China threat" argument is true or false, but is rather its reflection of a shared positivist mentality among mainstream China experts that they know China better than do the Chinese themselves. "We" alone can know for sure that they consider "us" their enemy and thus pose a menace to "us." Such an account of China, in many ways, strongly seems to resemble Orientalists' problematic distinction between the West and the Orient. Like orientalism, the U.S. construction of the Chinese "other" does not require that China acknowledge the validity of that dichotomous construction. Indeed, as Edward Said points out, "It is enough for 'us' to set up these distinctions in our own minds; [and] 'they' become 'they' accordingly. "

### Heg

#### ---Their defense of American hegemony relies on epistemologically flawed colonial stereotypes of racial inferiority that whitewashes American imperialism while constructing a universal notion of humanity that enables a self-defeating genocidal politics in the name of stability.

Kaplan 2003

Amy, Professor of English at University of Pennsylvania, “Violent Belongings and the Question of Empire Today,” American Quarterly 56.1

Another dominant narrative about empire today, told by liberal interventionists, is that of the "reluctant imperialist." 10 In this version, the United States never sought an empire and may even be constitutionally unsuited to rule one, but it had the burden thrust upon it by the fall of earlier empires and the failures of modern states, which abuse the human rights of their own people and spawn terrorism. The United States is the only power in the world with the capacity and the moral authority to act as military policeman and economic manager to bring order to the world. Benevolence and self-interest merge in this narrative; backed by unparalleled force, the United States can save the people of the world from their own anarchy, their descent into an [End Page 4] uncivilized state. As Robert Kaplan writes—not reluctantly at all—in "Supremacy by Stealth: Ten Rules for Managing the World": "The purpose of power is not power itself; it is a fundamentally liberal purpose of sustaining the key characteristics of an orderly world. Those characteristics include basic political stability, the idea of liberty, pragmatically conceived; respect for property; economic freedom; and representative government, culturally understood. At this moment in time it is American power, and American power only, that can serve as an organizing principle for the worldwide expansion of liberal civil society." 11 This narrative does imagine limits to empire, yet primarily in the selfish refusal of U.S. citizens to sacrifice and shoulder the burden for others, as though sacrifices have not already been imposed on them by the state. The temporal dimension of this narrative entails the aborted effort of other nations and peoples to enter modernity, and its view of the future projects the end of empire only when the world is remade in our image. This is also a narrative about race. The images of an unruly world, of anarchy and chaos, of failed modernity, recycle stereotypes of racial inferiority from earlier colonial discourses about races who are incapable of governing themselves, Kipling's "lesser breeds without the law," or Roosevelt's "loosening ties of civilized society," in his corollary to the Monroe Doctrine. In his much-noted article in the New York Times Magazine entitled "The American Empire," Michael Ignatieff appended the subtitle "The Burden" but insisted that "America's empire is not like empires of times past, built on colonies, conquest and the white man's burden." 12 Denial and exceptionalism are apparently alive and well. In American studies we need to go beyond simply exposing the racism of empire and examine the dynamics by which Arabs and the religion of Islam are becoming racialized through the interplay of templates of U.S. racial codes and colonial Orientalism. These narratives of the origins of the current empire—that is, the neoconservative and the liberal interventionist—have much in common. They take American exceptionalism to new heights: its paradoxical claim to uniqueness and universality at the same time. They share a teleological narrative of inevitability, that America is the apotheosis of history, the embodiment of universal values of human rights, liberalism, and democracy, the "indispensable nation," in Madeleine Albright's words. In this logic, the United States claims the authority to "make sovereign judgments on what is right and what is wrong" for everyone [End Page 5] else and "to exempt itself with an absolutely clear conscience from all the rules that it proclaims and applies to others." 13 Absolutely protective of its own sovereignty, it upholds a doctrine of limited sovereignty for others and thus deems the entire world a potential site of intervention. Universalism thus can be made manifest only through the threat and use of violence. If in these narratives imperial power is deemed the solution to a broken world, then they preempt any counternarratives that claim U.S. imperial actions, past and present, may have something to do with the world's problems. According to this logic, resistance to empire can never be opposition to the imposition of foreign rule; rather, resistance means irrational opposition to modernity and universal human values. Although these narratives of empire seem ahistorical at best, they are buttressed not only by nostalgia for the British Empire but also by an effort to rewrite the history of U.S. imperialism by appropriating a progressive historiography that has exposed empire as a dynamic engine of American history. As part of the "coming-out" narrative, the message is: "Hey what's the big deal. We've always been interventionist and imperialist since the Barbary Coast and Jefferson's 'empire for liberty.' Let's just be ourselves." A shocking example can be found in the reevaluation of the brutal U.S. war against the Philippines in its struggle for independence a century ago. This is a chapter of history long ignored or at best seen as a shameful aberration, one that American studies scholars here and in the Philippines have worked hard to expose, which gained special resonance during the U.S. war in Vietnam. Yet proponents of empire from different political perspectives are now pointing to the Philippine-American War as a model for the twenty-first century. As Max Boot concludes in Savage Wars of Peace, "The Philippine War stands as a monument to the U.S. armed forces' ability to fight and win a major counterinsurgency campaign—one that was bigger and uglier than any that America is likely to confront in the future." 14 Historians of the United States have much work to do here, not only in disinterring the buried history of imperialism but also in debating its meaning and its lessons for the present, and in showing how U.S. interventions have worked from the perspective of comparative imperialisms, in relation to other historical changes and movements across the globe. The struggle over history also entails a struggle over language and culture. It is not enough to expose the lies when Bush hijacks words [End Page 6] such as freedom, democracy, and liberty. It's imperative that we draw on our knowledge of the powerful alternative meanings of these key words from both national and transnational sources. Today's reluctant imperialists are making arguments about "soft power," the global circulation of American culture to promote its universal values. As Ignatieff writes, "America fills the hearts and minds of an entire planet with its dreams and desires." 15 The work of scholars in popular culture is more important than ever to show that the Americanization of global culture is not a one-way street, but a process of transnational exchange, conflict, and transformation, which creates new cultural forms that express dreams and desires not dictated by empire. In this fantasy of global desire for all things American, those whose dreams are different are often labeled terrorists who must hate our way of life and thus hate humanity itself. As one of the authors of the Patriot Act wrote, "when you adopt a way of terror you've excused yourself from the community of human beings." 16 Although I would not minimize the violence caused by specific terrorist acts, I do want to point out the violence of these definitions of who belongs to humanity. Often in our juridical system under the Patriot Act, the accusation of terrorism alone, without due process and proof, is enough to exclude persons from the category of humanity. As scholars of American studies, we should bring to the present crisis our knowledge from juridical, literary, and visual representations about the way such exclusions from personhood and humanity have been made throughout history, from the treatment of Indians and slaves to the internment of Japanese Americans during World War II.

### A2 Permutation --- 2nc Politics

#### ---The permutation’s pragmatic combination fails because it still allows the debate to be framed by “energy production” which taints the affirmative’s ability to define problems and create solutions outside of existing structures of global inequality.

Hildyard Lohmann & Sexton 2012

Nicholas, founder and Director of The Corner House, Larry, author of the book “Carbon Trading: A Critical Conversation on Climate Change, Privatization and Power” & works at the British NGO The Corner House, Sarah, a director of The Corner House, Energy Security For What? For Whom? The Corner House, http://www.thecornerhouse.org.uk/resource/energy-security-whom-what

For time-pressed, slogan-bound, “must-be-ready-with-a-response” policy analysts and politicians, the invitation to reconsider such a seemingly settled concept as “energy” may look like an irksome invitation to navel-gaze. What does it matter if many societies – perhaps even the bulk of humanity – do not view a charcoal fire and a bullock drawing a plough through a field as twin instances of “energy consumption”? Far more important is the plight of the 2.7 billion people who rely on traditional biomass for cooking at the expense of forests and health; the 1.3 billion people who do not have access to electricity and thus the means to be “productive citizens”;2 the increasing competition for energy resources as the middle classes in China, India and Brazil weigh into the global mêlée for consumer goods; the need to assuage worried (Northern) consumers that the lights will not go out; and, above all, the threat that resource scarcities pose to continued economic growth. Who cares how or why fossil-fuelled capitalism is tied up with the evolution of a novel conception of energy? What matters is whether this gas pipeline should be built, that nuclear plant commissioned, or that LNG terminal financed. The pressing task is how to make the distasteful tradeoffs dictated by the realpolitik of securing energy for the future – human rights versus access to gas, maintaining jobs versus permitting pollution, leaving future generations with irresolvable problems of nuclear waste versus cutting carbon dioxide emissions. Such apparent pragmatism is understandable – but, in the end, unpragmatic. In today’s world, “energy” is about far more than pipelines and power stations, transmission lines and oil contracts: it is a system of economic and political relationships that weaves and reweaves the connections between corporations, governments, investors, human rights activists, environmentalists, the military, scientists, the media, trade unions and consumers alike into constantly shifting networks of power that serve to reproduce “the world that Energy begat”. No decision related to upper-case or abstract Energy (see pp.12ff) can escape the influences that such networks of power exert: Energy with a capital “E” not only frames the decision; it structures the solution, trapping the critical and the uncritical alike. To respond only to the daily froth of upper-case Energy talk – which power station? where? fuelled by gas or coal? – is to remain hostage to a dynamic that simply reinforces and reproduces the problems that Energy represents. Such “pragmatism” has helped shape an “energy security” agenda that mischaracterises the many energy scarcities – and insecurities – experienced by poorer people; promotes a response that has little to do with ensuring that everyone has the energy to meet their basic needs and everything to do with creating new sources of accumulation; and that disrespects the limits posed by climate change and resource depletion to endless economic growth. The result is a wave of new enclosures that, in addition to creating new scarcities (not only of energy but also of food, water, land and other necessities of life) are making a transition away from fossil fuels far harder to achieve.

### A2 Energy Inev --- 2nc Politics

#### ---“Energy” is not inevitable --- The modern conception of energy is a social construction that emerged in the late 1800s and is not a historical predetermined.

Hildyard Lohmann & Sexton 2012

Nicholas, founder and Director of The Corner House, Larry, author of the book “Carbon Trading: A Critical Conversation on Climate Change, Privatization and Power” & works at the British NGO The Corner House, Sarah, a director of The Corner House, Energy Security For What? For Whom? The Corner House, http://www.thecornerhouse.org.uk/resource/energy-security-whom-what

Outside the fossil-fuelled world, energy has always also been tied to a multitude of disparate but particular activities that have no omnibus category or abstract quantity linking them all. There was seldom any reason, for example, to treat heat and mechanical energy as equivalent or exchangeable, physically or economically. As economic historian Joel Mokyr notes: “the equivalence of the two forms was not suspected by people in the eighteenth century; the notion that a horse pulling a treadmill and a coal fire heating a lime kiln were in some sense doing the same thing would have appeared absurd to them.”s22 Agriculture was driven by sunlight and muscles, long-range trade by wind and water currents. Cooking and heating depended on wood and sometimes coal, which, together with charcoal and falling water, helped power industry. People did not think of themselves as “energy constrained” in the contemporary sense: an energy unbounded by seasons and the land still lay in the future. Capital “E” Energy as we know it today was in fact nowhere to be found. What we now recognise as Energy was also embedded in particular places in a fairly non-flexible geographical pattern. In European countries, grain-milling was scattered across the countryside, depending on where rivers could provide sufficient mechanical energy. As late as 1838, water still powered one-quarter of Britain’s cotton factories (and even the coal-powered upstarts were nevertheless called “mills” in a mark of their watery heritage). The size of towns depended on how much firewood was available within range of horse-powered transport. Global trade relied on understanding geographically specific wind patterns that had to be worked with, not against. Energy was not mobile, liquid, transferable in large quantities over long distances. The age of Btus, kilojoules and oil-equivalents lay in an unimagined future.23 As a result, there was no politics of energy of the kind that has become familiar in the fossil-fuel era. Controlling muscles meant controlling people and animals. Amassing power over production meant, above all, amassing human bodies – through slavery, for example. Exploitation of firewood and charcoal depended on access to land. How energy was used was subject to different kinds of monitoring: for example, the practices of millers scattered along rivers were vulnerable, to a certain extent, to surveillance by the local peasants whose business they sought. One person could control only limited quantities of energy, both in absolute terms and relative to others.

## \*\*\*1NR

### \*\*\*Topicality

### 1NR T

#### ---Financial incentives are distinguished from rules and regulations. There are 11 types of financial incentives. Their interpretation explodes the topic to include 30 types of incentives and policies.

Database of State Incentives for Renewables and Efficiency 12

<http://www.dsireusa.org/glossary/>

DSIRE organizes incentives and policies that promote renewable energy and energy efficiency into two general categories -- (1) Financial Incentives and (2) Rules, Regulations & Policies -- and roughly 30 specific types of incentives and policies. This glossary provides a description of each specific incentive and policy type.

FINANCIAL INCENTIVES (click to collapse section)

 Corporate Tax Incentives

Corporate tax incentives include tax credits, deductions and exemptions. These incentives are available in some states to corporations that purchase and install eligible renewable energy or energy efficiency equipment, or to construct green buildings. In a few cases, the incentive is based on the amount of energy produced by an eligible facility. Some states allow the tax credit only if a corporation has invested a minimum amount in an eligible project. Typically, there is a maximum limit on the dollar amount of the credit or deduction. In recent years, the federal government has offered corporate tax incentives for renewables and energy efficiency. (Note that corporate tax incentives designed to support manufacturing and the development of renewable energy systems or equipment, or energy efficiency equipment, are categorized as “Industry Recruitment/Support” in DSIRE.)

 Grant Programs

States offer a variety of grant programs to encourage the use and development of renewables and energy efficiency. Most programs offer support for a broad range of technologies, while a few programs focus on promoting a single technology, such as photovoltaic (PV) systems. Grants are available primarily to the commercial, industrial, utility, education and/or government sectors. Most grant programs are designed to pay down the cost of eligible systems or equipment. Others focus on research and development, or support project commercialization. In recent years, the federal government has offered grants for renewables and energy efficiency projects for end-users. Grants are usually competitive.

 Green Building Incentives

Green buildings are designed and constructed using practices and materials that minimize the impacts of the building on the environment and human health. Many cities and counties offer financial incentives to promote green building. The most common form of incentive is a reduction or waiver of a building permit fee. Several organizations issue certification for green buildings, including the U.S. Green Building Council (LEED certification), the Green Building Initiative (Green Globes certification), and the NAHB Research Center (National Green Building Certification). (Note that this category includes green building incentives that do not fall under other DSIRE incentive categories, such as tax incentives and grant programs.)

 Industry Recruitment/Support

To promote economic development and the creation of jobs, some states offer financial incentives to recruit or cultivate the manufacturing and development of renewable energy systems and equipment. These incentives commonly take the form of tax credits, tax exemptions and grants. In some cases, the amount of the incentive depends on the quantity of eligible equipment that a company manufactures. Most of these incentives apply to several renewable energy technologies, but a few states target specific technologies, such as wind or solar. These incentives are usually designed as temporary measures to support industries in their early years. They commonly include a sunset provision to encourage the industries to become self-sufficient.

 Loan Programs

Loan programs provide financing for the purchase of renewable energy or energy efficiency systems or equipment. Low-interest or zero-interest loans for energy efficiency projects are a common demand-side management (DSM) practice for electric utilities. State governments also offer low-interest loans for a broad range of renewable energy and energy efficiency measures. These programs are commonly available to the residential, commercial, industrial, transportation, public and/or non-profit sectors. Loan rates and terms vary by program; in some cases, they are determined on an individual project basis. Loan terms are generally 10 years or less. In recent years, the federal government has offered loans and/or loan guarantees for renewables and energy efficiency projects.

 PACE Financing

Property-Assessed Clean Energy (PACE) financing effectively allows property owners to borrow money to pay for renewable energy and/or energy-efficiency improvements. The amount borrowed is typically repaid over a period of years via a special assessment on the owner's property. In general, local governments (such as cities and counties) that choose to offer PACE financing must be authorized to do so by state law.

 Performance-Based Incentives

Performance-based incentives (PBIs), also known as production incentives, provide cash payments based on the number of kilowatt-hours (kWh) or BTUs generated by a renewable energy system. A "feed-in tariff" is an example of a PBI. To ensure project quality, payments based on a system’s actual performance are generally more effective than payments based on a system’s rated capacity. (Note that tax incentives based on the amount of energy produced by an eligible commercial facility are categorized as “Corporate Tax Incentives” in DSIRE.)

 Personal Tax Incentives

Personal tax incentives include income tax credits and deductions. Many states offer these incentives to reduce the expense of purchasing and installing renewable energy or energy efficiency systems and equipment. The percentage of the credit or deduction varies by state, and in most cases, there is a maximum limit on the dollar amount of the credit or deduction. An allowable credit may include carryover provisions, or it may be structured so that the credit is spread out over a certain number of years. Eligible technologies vary widely by state. In recent years, the federal government has offered personal tax credits for renewables and energy efficiency.

 Property Tax Incentives

Property tax incentives include exemptions, exclusions, abatements and credits. Most property tax incentives provide that the added value of a renewable energy system is excluded from the valuation of the property for taxation purposes. For example, if a new heating system that uses renewable energy costs more than a conventional heating system, the additional cost of the renewable energy system is not included in the property assessment. In a few cases, property tax incentives apply to the additional cost of a green building. Because property taxes are collected locally, some states have granted local taxing authorities the option of allowing a property tax incentive for renewables.

 Rebate Programs

States, utilities and a few local governments offer rebates to promote the installation of renewables and energy efficiency projects. The majority of rebate programs that support renewables are administered by states, municipal utilities and electric cooperatives; these programs commonly provide funding for solar water heating and/or photovoltaic (PV) systems. Most rebate programs that support energy efficiency are administered by utilities. Rebate amounts vary widely by technology and program administrator.

 Sales Tax Incentives

Sales tax incentives typically provide an exemption from, or refund of, the state sales tax (or sales and use tax) for the purchase of a renewable energy system, an energy-efficient appliance, or other energy efficiency measures. Several states have established an annual “sales tax holiday” for energy efficiency measures by annually allowing a temporary exemption – usually for one or two days – from the state sales tax.

RULES, REGULATIONS & POLICIES (click to collapse section)

 Appliance/Equipment Efficiency Standards

Many states have established minimum efficiency standards for certain appliances and equipment. In these states, the retail sale of appliances and equipment that do not meet the established standards is prohibited. The federal government has also established efficiency standards for certain appliances and equipment. When both the federal government and a state have adopted efficiency standards for the same type of appliance or equipment, the federal standard overrides the state standard (even if the state standard is stricter).

 Building Energy Codes

Building energy codes adopted by states (and some local governments) require commercial and/or residential construction to adhere to certain energy standards. While some government entities have developed their own building energy codes, many use existing codes (sometimes with state-specific amendments), such as the International Energy Conservation Code (IECC), developed and published by the International Code Council (ICC); or ASHRAE 90.1, developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). A few local building energy codes require certain commercial facilities to meet green building standards.

 Energy Efficiency Resource Standards (EERS)

Energy efficiency resource standards (EERS) are state policies that require utilities to meet specific targets for energy savings according to a set schedule. EERS policies establish separate reduction targets for electricity sales, peak electric demand and/or natural gas consumption. In most cases, utilities must achieve energy savings by developing demand-side management (DSM) programs, which typically provide financial incentives to customers to install energy-efficient equipment. An EERS policy is sometimes coupled with a state’s renewables portfolio standard (RPS). In these cases, energy efficiency is typically included as a lower-tier resource.

 Energy Standards for Public Buildings

Many states and local governments, as well as the federal government, have chosen to lead by example by requiring new government buildings to meet strict energy standards. DSIRE includes policies that have established green building standards, energy-reduction goals, equipment-procurement requirements, and/or the use of on-site renewable energy. Many of these policies require that new government buildings (and renovated buildings, in some cases) attain a certain level of certification under the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) program. Equipment-procurement policies often mandate the use of the most efficient equipment, including equipment that meets federal Energy Star criteria. Policies designed to encourage the use of on-site renewables generally establish conditional requirements tied to life-cycle cost analysis.

 Equipment Certification Requirements

Policies requiring renewable energy equipment to meet certain standards serve to protect consumers from buying inferior equipment. These requirements not only benefit consumers; they also protect the renewable energy industry by keeping substandard systems out of the market.

 Generation Disclosure

Some states require electric utilities to provide their customers with specific information about the electricity that the utility supplies. This information, which generally must be shared with customers periodically, usually includes the utility's fuel mix percentages and emissions statistics. In states with restructured electricity markets, generation disclosure policies are designed to help consumers make informed decisions about the electricity and suppliers they choose. A few states that have not fully restructured their electricity markets require generation disclosure by utilities.

 Green Power Purchasing Policies

Government entities, businesses, residents, schools, non-profits and others can play a significant role in supporting renewable energy by buying electricity from renewable resources, or by buying renewable energy credits (RECs). Many state and local governments, as well as the federal government, have committed to buying green power to account for a certain percentage of their electricity consumption. Green power purchases are typically executed through contracts with green power marketers or project developers, through utility green power programs, or through community aggregation.

 Interconnection Standards

Interconnection standards specify the technical and procedural process by which a customer connects an electricity-generating to the grid. Such standards include the technical and contractual terms that system owners and utilities must abide by. State public utilities commissions typically establish standards for interconnection to the distribution grid, while the Federal Energy Regulatory Commission (FERC) has adopted standards for interconnection to the transmission level. Many states have adopted interconnection standards, but some states’ standards apply only to investor-owned utilities -- not to municipal utilities or electric cooperatives. (Several states have adopted interconnection guidelines, which are weaker than standards and generally apply only to net-metered systems.)

 Line Extension Analysis

When a prospective customer requests electric service for a home or facility that is not currently served by the electric grid, the customer usually must pay a distance-based fee for the cost of extending power lines to the home or facility. In some cases, it is cheaper to use an on-site renewable energy system to meet a prospective customer’s electricity needs. A few states require utilities to provide information regarding renewable energy options when a line extension is requested.

 Mandatory Utility Green Power Option

Several states require electric utilities to offer customers the option to buy electricity generated from renewable resources, commonly known as “green power.” Typically, utilities offer green power generated using renewable resources that the utilities own (or for which they contract), or they buy renewable energy credits (RECs) from a provider certified by a state public utilities commission.

 Net Metering

For electric customers who generate their own electricity, net metering allows for the flow of electricity both to and from the customer – typically through a single, bi-directional meter. When a customer’s generation exceeds the customer’s use, electricity from the customer flows back to the grid, offsetting electricity consumed by the customer at a different time during the same billing cycle. In effect, the customer uses excess generation to offset electricity that the customer otherwise would have to purchase at the utility’s full retail rate. Net metering is required by law in most U.S. states, but these policies vary widely.

 Public Benefit Funds

Most public benefit funds (PBFs) were developed by states during the electric utility restructuring era, in the late 1990s, to ensure continued support for renewable energy, energy efficiency and low-income energy programs. These funds are commonly supported through a very small surcharge on electricity consumption (e.g., $0.002/kWh). This charge is sometimes referred to as a "system benefits charge" (SBC). PBFs commonly support rebate programs, loan programs, research and development, and energy education programs.

 Renewables Portfolio Standards (RPS)

Renewable portfolio standards (RPSs) require utilities to use renewable energy or renewable energy credits (RECs) to account for a certain percentage of their retail electricity sales -- or a certain amount of generating capacity -- according to a specified schedule. (Renewable portfolio goals are similar to RPS policies, but renewable portfolio goals are not legally binding.) Most U.S. states have established an RPS. The term “set-aside” or “carve-out” refers to a provision within an RPS that requires utilities to use a specific renewable resource (usually solar energy) to account for a certain percentage of their retail electricity sales (or a certain amount of generating capacity) according to a set schedule.

 Solar & Wind Access Policies

Solar and wind access policies are designed to establish a right to install and operate a solar or wind energy system at a home or other facility. Some solar access laws also ensure a system owner’s access to sunlight. These laws may be implemented at both the state and local levels. In some states, access rights prohibit homeowners associations, neighborhood covenants and local ordinances from restricting a homeowner’s right to use solar energy. Easements, the most common form of solar access policy, allow for the rights to existing access to a renewable resource on the part of one property owner to be secured from an owner whose property could be developed in such a way as to restrict that resource. An easement is usually transferred with the property title. At the local level, communities use several policies to protect solar access, including solar access ordinances, development guidelines requiring proper street orientation, zoning ordinances that contain building height restrictions, and solar permits.

 Solar & Wind Contractor Licensing

Some states have established a licensing process for solar-energy contractors and/or wind-energy contractors. These requirements are designed to ensure that contractors have the necessary knowledge and experience to install systems properly. Solar licenses typically take the form of either a separate, specialized solar contractor’s license, or a specialty classification under a general electrical or plumbing license.

 Solar & Wind Permitting Standards

Permitting standards can facilitate the installation of wind and solar energy systems by specifying the conditions and fees involved in project development. Some local governments have adopted simplified or expedited permitting standards for wind and/or solar. “Top-of-the-stack” permitting (or fast-track permitting) saves system owners and project developers time and money. Some states have capped fees that local governments may charge for a permit for a solar or wind energy system. In addition, some states have developed (or have supported the development of) model wind ordinances for use by local governments.

#### ---Precision-Prefer our evidence---DSIRE is the best source for incentive definitions

Gouchoe, 2k -North Carolina Solar Center Industrial Extension Service North Carolina State University (Susan, “Local Government and Community Programs and Incentives for Renewable Energy— National Report,” <http://seg.fsu.edu/Library/casestudy%20of%20incentives.pdf>

The Database of State Incentives for Renewable Energy (DSIRE) serves as the nation’s most comprehensive source of information on the status of programs and incentives for renewable energy. The database tracks these programs at the state, utility, local, and community level. Established in 1995, DSIRE is an ongoing project of the Interstate Renewable Energy Council (IREC) and is managed by the North Carolina Solar Center with funding from the U.S. Department of Energy’s Office of Power Technologies.

The first three phases of the DSIRE project—surveys of state financial incentives, state regulatory policies, and utility programs and incentives—have been completed. Information from these databases has been published in three previous reports: National Summary Report on State Financial Incentives for Renewable Energy (1997); National Summary Report on State Programs and Regulatory Policies for Renewable Energy (1998); and National Summary Report on Utility Programs and Incentives for Renewable Energy (1999). These reports summarize incentives, programs, and policies that promote active and passive solar, photovoltaics, wind, biomass, alternative fuels, geothermal, hydropower, and waste energy sources. Given the rapidly changing status of state activities, an updated report— National Summary Report on State Financial and Regulatory Incentives for Renewable Energy—has been produced concurrently with this report on local initiatives.

While reports serve as a snapshot of the status of incentives and programs, constant revisions and additions to the database maintain DSIRE’s role as the most up-to-date, national clearinghouse of information on incentives and programs for renewable energy. Through DSIRE on Line, the DSIRE database is accessible via the web at: http://www.ncsc.ncsu.edu/dsire.htm. In 2001, federal incentives will be added to the database, thereby providing a complete and comprehensive database of renewable energy incentives at all levels—national, state, and local.

### 1NR A2: We Meet

---Contextual usage distinguishes procurement from financial incentives

Carleton-Journal of Energy and Natural Resources Law-8 26 JERL 402

States may make use of finances available under the federal programmes. In addition to federal incentives, the states have adopted their own financial measures. In NSW, for example, there are state-wide mandatory renewable energy targets for electricity retailers 66 with penalties on GHGs above the specified benchmark 67; financial incentives for the construction of renewable energy facilities; and government departments are required to purchase a proportion of electricity from renewable sources. 68 In Queensland and South Australia, renewable energies are made more attractive through rebates to domestic consumers 69 and a renewable energy production subsidy is offered by the government of Western Australia. 70 In addition, the Governments of the ACT, NSW, Queensland, South Australia, Victoria and Western Australia implement a National Greenpower Accreditation Programme where suppliers of renewable energy can charge a premium above standard tariffs for electricity. 71

More evidence – procurement is distinct from a financial incentive – this is in the context of governmental policy

Salkin-prof law Albany-9 80 U. Colo. L. Rev. 921

During the past decade, while the federal government dragged its feet on the issue of global warming, many state and local governments have been stepping up to take a leadership role in the fight against climate change. Acting as laboratories of innovation, they have developed a wide range of policies and initiatives. 6 At the state level, climate change action plans [\*923] have been developed to guide efforts to reduce GHG emissions in various sectors. 7 A number of states have adopted emissions reductions targets 8 and GHG monitoring and reporting programs, 9 and others have adopted renewable portfolio standards that require power utilities to obtain a certain percentage of their energy supply from non-GHG producing renewable sources. 10 Local governments have incorporated climate change concerns and sustainability goals into their comprehensive plans. 11 For example, they have adopted green building codes that require new construction projects to incorporate sustainable building practices in order to reduce building emissions and improve indoor air quality. 12 Some have started local [\*924] tree planting programs, 13 and others have enacted regulations to promote the siting of renewable energy equipment. 14 Other sustainability initiatives to be passed at the state and local level include requirements to purchase or generate renewable energy, 15 procurement policies supporting the purchase of energy efficient appliances and equipment made from recycled materials, 16 and plans to replace fleets with low-emission vehicles. 17 Grants and financial incentives for purchasing renewable [\*925] energy equipment and improving energy efficiency in buildings and appliances have also become more common. 18

More contextual evidence – procurement of green energy is distinct from incnetives for green energy

Hamrin-Center for Resource Solutions-6 36 Golden Gate U.L. Rev. 413, \*

The group received a substantial overview of all of the policies that have been passed and implemented in the United States as a whole, as well as those passed at the state level. The list ranged from financial [\*419] incentives based on the quantity of investment or production, to government mandated pricing structures, and production and procurement requirements. All of these policies interact with the market. Getting the right mix of policies in place, as well as implementing the necessary policies so they are effective and available when needed is the challenging task.

### 1NR A2: No Limits DA

#### ---Procurement opens the door to affirmatives that are divorced from the larger private market debate---destroys core negative ground

Singh-Renewable Energy Policy Project-98 [Government Procurement to Expand PV Markets](http://www.repp.org/repp_pubs/pdf/pv4.pdf)

<http://www.repp.org/repp_pubs/articles/pv/pvs.html#4>

A good government procurement program for renewables should take into account the needs of the private market. The creation of a government market for renewables that bears no relationship to the private market eliminates the indirect, but potentially enormous economic development and environmental benefits of commercializing renewables in the private market. Too often policy efforts to create a government market have resulted in submarkets reflective of governments’ unique needs and procedures. For many PV firms, devoting substantial staff time to government contracts may detract significantly from efforts oriented to the larger private market.