# Fiscal Cliff

## 1NC

#### Fiscal cliff will pass but PC’s key

Kimberly Atkins 11-8, Boston Herald columnist, “Prez returns to D.C. with more clout,” 11/8/12, http://bostonherald.com/news/columnists/view/20221108prez\_returns\_to\_dc\_with\_more\_clout

When President Obama returned yesterday to the White House, he brought with him political capital earned in a tough re-election fight as well as a mandate from voters — which means bold changes and bruising fights could lie ahead. ¶ The first agenda item is already waiting for him: reaching an agreement with lawmakers to avert the looming fiscal cliff. GOP lawmakers have previously shot down any plan involving tax increases. Obama’s win — based in part on a message of making the wealthiest Americans pay more — may already be paying dividends.¶ In remarks at the Capitol yesterday, House Speaker John Boehner seemed to acknowledge the GOP has to take a different tack than the obstructionism that has marred progress in the past.¶ “The president has signaled a willingness to do tax reform with lower rates. Republicans have signaled a willingness to accept new revenue if it comes from growth and reform,” Boehner said. “Let’s start the discussion there.” ¶ Obama’s fresh political clout could extend to longer term fiscal policies beyond the fiscal cliff, though don’t expect GOP pushback to vanish. House Republicans still have plenty of fight in them. ¶ Comprehensive immigration reform — designed to smooth the path to citizenship while also strengthening the nation’s borders — also will be high on the president’s priority list. But unlike in his first term, when such a plan got little more than lip service in the face of staunch GOP opposition, Obama’s 3-to-1 support from Latinos on Election Day gives him the incentive to get it done. It also robs Republicans, who learned firsthand that dwindling support from Hispanics and other minority groups is costing them dearly, of any reason to stand in the way. ¶ An influx of new female voices in the Senate could also make Obama’s next four years the “Term of the Woman,” putting a new focus on equal pay and reproductive rights. ¶ U.S. Sen. Patty Murray of Washington state, who chairs the Democratic Senatorial Campaign Committee, told reporters yesterday that having a historically high 20 women in the Senate in January won’t just mean more attention to women’s issues. She said the Senate will function better overall with “great women who have really strong voices” on board, such as U.S. Sen.-elect Elizabeth Warren. “There is no stronger advocate for middle-class Americans,” Murray said of Warren. ¶ None of this, of course, will be a cakewalk, but unlike his first term, Obama will have more power to push back.

#### Plan’s unpopular while CP shields

Merchant 10 Political & Environment Columnist-Discovery, 10/21, “How the US Military Could Bring Solar Power to Mass Market,” http://www.treehugger.com/corporate-responsibility/how-the-us-military-could-bring-solar-power-to-mass-market.html

Furthermore, **Congress is infinitely more likely to approve funding** for R&D; and infrastructure **if the projects are military-related**. Which is depressing, but true -- the one thing that **no politician can get caught opposing is the safety of American troops.** In fact, the whole premise of the article is rather depressing, on point though it may be: The only way we may end up getting a competitive clean energy industry is through serious military investment, which is of course, serious government spending. Which **under any other guise would be vehemently opposed by conservatives.**

#### Sequestration destroys US global military power---triggers multiple scenarios for nuclear war

Hunter 9/30 Duncan is a U.S. Representative from Alaska. “SEQUESTRATION SENDS WRONG MESSAGE TO U.S. FRIENDS AND FOES ALIKE,” 2012, http://www.utsandiego.com/news/2012/sep/30/tp-sequestration-sends-wrong-message-to-us/?page=1#article

Over the next 10 years, because of **sequestration**, the Pentagon will be forced to absorb $500 billion in budget cuts that **will** **strike at the heart of America’s military**. Making this even more dangerous is the fact that the legislation triggering sequestration, the Budget Control Act, also imposed an additional $450 billion in defense budget cuts for a total of nearly $1 trillion of reductions over the next decade. The next 10 years are sure to be no different from the last. In the Middle East, Iranis desperately searching to fill a regional power vacuum and enhance its weapons program**, while threatening to** close the Strait of Hormuz **and targeting Israel** with unapologetic provocation. Meanwhile, the United States still has an obligation to Iraq. There is a necessity for diplomatic support and engagement, even though the ground combat mission is over. Africa is also experiencing power struggles of its own. The situations in Libya and Egypt are evolving, while Yemen and Somalia are acting as staging grounds for al-Qaeda. There is also the threat of Somali pirates in international waters. Multiple high-profile hostage situations and combat rescues show just how serious of a threat that rogue bands of pirates are to naval and commercial shipping lanes. **There is also the threat of** North Korea **with its aggressive pursuit of advanced aerial weaponry,** Russia **with its focus on arms modernization, and** China **with its large-scale and rapid military buildup.** China’s **display of hostility toward** Taiwan — a friend and ally of the United States — **also shows no sign of diminishing**. With all of this, more than 70,000 American troops are in Afghanistan, facing down a dangerous enemy. For the United States and other nations, interest in Afghanistan and the region will continue long after the last of the coalition ground forces leave and the next phase of the mission begins. **Ignoring America’s obligation as a world leader and the patchwork of threats that exist today won’t eliminate the risk posed by an Iran that one day acquires nuclear weapons or a North Korea that eventually acquires effective strike capabilit**y. More likely, **these and other threats will develop more quickly and efficiently, putting the** global interests **of the U.S. directly in the cross hairs.** Through a robust national defense, the United States has always sent a clear message around the world that American intentions are good and we stand by our allies. **The strength of the U.S. military has** dissuaded conflict **and suggested to adversaries that challenging freedom is a losing proposition**. **It was this deterrent**, in fact, **that won the Cold War and turned the U.S. military into the world’s most effective fighting force.** Sequestration would change all of this**, for the worse.** In the words of Defense Secretary Leon Panetta, sequestration is a “nutty formula, and it’s goofy to begin with, and it’s not something, frankly, that anybody responsible ought to put into effect.” He also said **sequestration is the equivalent of “**shooting ourselves in the head**.”** Tough words, but Secretary Panetta is right. Sequestration would produce **the smallest ground force since 1940**, the smallest Navy since 1915 and the smallest tactical fighter force in Air Force history. Ironically, the president’s defense policy shift to the Pacific increases reliance on the Navy, but with the smallest fleet in nearly a century, controlling the oceans and projecting force will become an even more difficult and selective process, requiring prioritization that would create vulnerabilities elsewhere. Resetting America’s armed forces after a decade-plus of combat action is another necessity that cannot be overlooked. There is also a guarantee of pink slips throughout the uniformed services and every industry that directly supports the U.S. military. In San Diego, the military sustains hundreds of thousands of jobs, and billions of dollars in economic productivity. San Diego — even for all of its strategic value — is not immune to job loss and other economic impacts accompanying deep budget cuts. Sequestration is a term Americans should get to know and understand, because it will have real and lasting consequences if left unchecked. The upside is that the risks and dangers can be avoided as long as Congress and the president act in the coming months. The clock is ticking to stave off sequestration — a move that **would signal to our friends and enemies alike that we uphold our promises and stand ready to defend our interests against any threat.**

## 1NR

### Overview

#### Cliff turns the case---creates investor uncertainty that prevents commercialization

Malone 9/26 Scott is a Reuters writer. “Analysis: Corporate America sweats as U.S. nears fiscal cliff,” 2012, http://www.reuters.com/article/2012/09/27/us-usa-economy-fiscalcliff-idUSBRE88P1PX20120927

Top U.S. executives have less confidence in the business outlook now than at any time in the past three years - and a key reason is fear of gridlock in Washington over the fiscal deficit and tax policy. **The uncertainty**, coupled with slowing demand in Asia and Europe, **is forcing corporate leaders to postpone decisions on** major investments and hiring, and hurting sales of everything from textbooks to telephone lines. "If we don't deal with the fiscal cliff and don't deal with predictability on taxes for both citizens and business, with the rest of the world in a struggling state, this is really bad for us," John Chambers, CEO of network equipment maker Cisco Systems Inc (CSCO.O), told Reuters on Tuesday. Some 34 percent of U.S. CEOs plan to cut jobs in the United States over the next six months, up from 20 percent a quarter ago, according to a Business Roundtable survey released on Wednesday. Only 30 percent plan to raise capital spending, compared with 43 percent previously. The group's index of CEO confidence fell to its lowest point since the third quarter of 2009, when the United States had just emerged from its worst recession in 80 years. The main culprit is the fiscal cliff -- Washington's self-imposed year-end deadline to agree on a plan to shrink the federal budget or trigger $600 billion in spending cuts and higher taxes that were put in place last summer. The sharpest pain would be felt by the defense and healthcare sectors, which face direct funding cuts. But any **resulting slowdown could send shockwaves across the economy.**

#### Cliff wrecks manufacturing

Brown 8/27 Clayola Brown is national president of the A. Philip Randolph Institute. “Sequestration cuts would destroy U.S. economy Congress must not allow devastating cuts in defense spending,” 2012, http://articles.baltimoresun.com/2012-08-27/news/bs-ed-sequestration-20120827\_1\_budget-cuts-sequestration-cuts-automatic-cuts

Across America, manufacturing workers and their families are starting to hope again. Unemployment remains unacceptably high at 8.2 percent, but it has come down from 10 percent in October 2009. After the worst recession since the Great Depression, the U.S. economy has created 4 million jobs over the past two years.¶ Working families have a message for Congress: Keep the fragile recovery alive. But unbelievably, Congress is on the verge of tacitly approving huge budget cuts that would send up to 1.5 million Americans back to the unemployment lines.¶ **Massive budget cuts now would be like pulling the plug on a patient after he's awakened from a long coma and is about to walk for the first time in years**. If you think no one would propose such cruelty to the working families of America, you're underestimating the tea party ideologues in Congress.¶ In fact, budget cuts scheduled to start next January could set back economic recovery for years. The automatic cuts, known as "sequestration," were set in motion by the failure of a congressional "Supercommittee" to develop a long-term budget plan last fall and will take effect Jan. 1 unless Congress approves a new agreement before then.¶ Sequestration cuts in the defense budget — a key driver of this Frankenstein's monster of job destruction — would be especially devastating to the economy because of the aerospace sector's importance to local economies across America. One study estimated that 1 million to 1.5 million workers would lose their jobs, increasing the unemployment rate by a full percentage point.¶ An estimated $86 billion would be removed from the economy from defense cuts alone, reducing economic growth by 25 percent. The respected, nonpartisan Congressional Budget Office warns explicitly that defense sequestration cuts could help push the economy into another recession.¶ **Sequestration would devastate our country's manufacturing base**, not only destroying hundreds of thousands of decent jobs that bring economic security and dignity to American families, but also **permanently weakening our ability to compete**.¶ Aerospace is one of the few remaining manufacturing industries in which America is No. 1, and it's the largest net exporter of any industry — contributing more than $40 billion to our trade balance. The world comes to us for commercial and military aircraft, rockets and other space equipment and a wide assortment of related parts and services. But competitors are licking their chops and ready to pounce, as they did in so many other areas in recent decades. Government-owned aerospace companies in China, for example, would be thrilled if Congress forces our plants to close and our suppliers to go bankrupt.¶ And even if some plants manage to avoid that fate, history tells us that it's penny-wise but pound-foolish to shut down a production line, only to start it back up. When production of the B-1 bomber was temporarily canceled in the late 1970s and later resumed, the cost skyrocketed. Sequestration would amount to making the same mistake with our entire military aircraft modernization program.

### Warming Impact

#### Success in fiscal cliff negotiations is key to Obama’s second term agenda---specifically warming

Montgomery and Goldfarb 11/6 Lori and Zachary are writer for the Washington Post. “Fresh from reelection, president finds himself on edge of ‘fiscal cliff’,” 2012, <http://www.washingtonpost.com/politics/decision2012/fiscal-cliff-clock-starts-in-earnest-as-election-fades-to-background/2012/11/06/c4dfde6e-27b2-11e2-b2a0-ae18d6159439_story.html>

If Obama can engineer a compromise to avert the cliff with the freshly reelected Republican House, he could **set the stage for progress on other second-term priorities, including immigration reform, climate change and investments in education and manufacturing.** Such a compromise could also infuse fresh energy into an economic recovery that has suffered from uncertainty over the future of federal budget policies.¶ “Getting a deal on long-term fiscal soundness is paramount to move forward and to see the economy really keep improving,” said Bill Daley, Obama’s former chief of staff. It will also “give confidence that the political system can address a major issue.”

#### Extinction – that’s Flournoy – conceded impact in 1NC – means try or die flips neg – only existential risk means it outweighs on magnitude

### Will Pass

#### Kicking the deadline still triggers the impact

Tett 8/19 Gillian is the US managing editor of the Financial Times. “Fiscal brinkmanship is the real US threat,” 2012, http://www.ft.com/cms/s/0/33d4c42c-e854-11e1-8ffc-00144feab49a.html#axzz243Y6TYSG

But amid all this hand-wringing, there is another, more subtle – but more likely – threat that ought to worry investors. If the first scenario is an unrestrained plunge, then this second is the fiscal equivalent of bungee jumping. There seems little chance of a bipartisan fiscal deal before the November 6 election and it is anyone’s guess whether a deal can emerge during Congress’s lame duck session (before the start of the next presidential term in January). But even without such a deal, most Washington observers believe a reprieve will emerge just before – or after – January 1. Washington might tiptoe to the edge of that fiscal cliff, in other words, or even appear, temporarily, to go over the edge; but if history is any guide, a last-minute compromise will then pull the situation back. What really looms, then, is a period of brinkmanship, stop-start crises and fiscal swings of the sort that might spook even a professional bungee jumper.¶ Does this matter? Diehard optimists might insist not. After all, Washington has experienced plenty of this before. Its structure of government, with all those checks and balances, almost encourages it. Last summer, for example, the federal government flirted with a technical default on its bonds because Congress could not agree to extend the last debt ceiling – until there was a reprieve. In the spring, parts of the government even briefly shut down because no budget was passed. Similar shutdowns also occurred in 1995 and 1996 under President Bill Clinton, as well as in some states.¶ There is little evidence that this brinkmanship caused lasting economic damage. Precisely because it has occurred before, government agencies have become good at coping. Indeed, some officials insist – somewhat optimistically – that the next bout of brinkmanship might actually be less traumatic than before. Democrats and Republicans have now been discussing – or arguing about – fiscal issues for two years, the argument goes, and while there has been no deal, it has clarified the contours of the debate and opened channels of communication. The so-called “gang of six senators” who tried – and failed – to broker a bipartisan fiscal compromise last year, for example, are now talking again in an enlarged group (known as “the gang of eight” or “gang of 40”). That might enable a deal to be reached quickly – if a crisis struck. “Everyone knows we have to deal with this,” insists one senior administration official.¶ **Nevertheless, what makes the current situation potentially more costly than before is not just the degree of political polarisation, but the wider climate of market unease. With business and consumer confidence already low and sapping economic growth, it is a bad moment for stop-start crises**, particularly if drawn out over a long time. Yet, unfortunately, this extended brinkmanship is exactly what markets now appear to expect. A recent survey by Citigroup, for example, suggests that nine out of 10 equity analysts think the US government will deal with the cliff by delaying the fiscal tightening measures temporarily, thus deferring the hard decisions until late 2013. It seems likely that brinkmanship could breed even more brinkmanship further down the road.¶ Perhaps this is better than going over a cliff but, if nothing else, stop-start crises tend to produce suboptimal budget decisions. Or, as Rob Portman, the Republican senator from Ohio, recently commented: “The threat of government shutdowns bullies lawmakers into approving poorly drafted, budget-busting spending bills.” More perniciously, the worse this brinkmanship becomes, the more it tends to erode market trust, creating the risk of an eventual accident that sparks a market panic in Treasuries or other asset classes. As the president of a regional Federal Reserve bank observes: “If you are going to go bungee jumping, again and again, you had better hope that the rope will hold.” Investors – and politicians – take note.’

#### Punting collapses the economy---market perception---specifically triggers debt downgrade

Barno 11/7— retired Lieutenant General of the United States Army. Master’s in National Security and Strategic Studies from Georgetown University—Dr. Nora Bensahel is Deputy Director of Studies and a Senior Fellow at the Center for a New American Security—AND Joel Smith and Jacob Stokes; Research Assistants at the Center for a New American Security (Brace Yourself, www.foreignpolicy.com/articles/2012/11/07/brace\_yourself?page=full)

However, the effects of a delay would differ from those of a grand bargain in one significant regard: **the potential market reaction**. Financial markets may react poorly if the deficit reduction measures enacted in the Budget Control Act of 2011 are delayed without having reached a bigger deal, because it would signal that Washington lacks the political will to solve its fiscal problems. Both Fitch Ratings and Moody's Investor Services have warned of a **credit downgrade** if Congress and the president do not reach an agreement that prevents the country from going off the fiscal cliff, increases the U.S. debt ceiling, and creates a plan for reducing the budget deficit and stabilizing the federal debt. As former Senators Sam Nunn and Pete Domenici wrote in October, "Absent more constructive action, simply postponing when we go over the cliff could hurt business confidence, worry investors and lead to another disruptive debate over raising the debt ceiling."

**That collapses the global economy**

**Goldwein 11** (Marc, senior policy analyst for the fiscal policy program at the New America Foundation and former Associate Director of the National Commission on Fiscal Responsibility and Reform, The Atlantic, 8/11, Drawing a AAA-Road Map for Post-Downgrade America, <http://www.theatlantic.com/business/archive/2011/08/drawing-a-aaa-road-map-for-post-downgrade-america/243463/>)

Rather than going up, interest rates have actually fallen a bit since the rating downgrade. This is not inconsistent with what has happened to other AAA-downgraded countries, where interest rate effects have generally been quite small. ... Okay, Panic a Little If rating downgrades don't augur immediate crises, they tend to indicate trouble on the horizon. Of the 10 other countries that have been downgraded from AAA, eight experienced further downgrades and five have still never recovered their AAA rating. Deeper downgrades have been associated with interest rate spikes, and the fact that both S&P and Moody's have us on a negative outlook suggests that more downgrades could be in our future. What are the consequences of **further downgrades?** The most direct one could be higher interest rates, as investors insist on a risk premium. Even a 0.1 percent increase in interest rates would mean an additional $130 billion in government spending on interest over the next 10 years that we would have to offset in hiring taxes or fewer investments to meet the same debt goal. A 0.7% increase in interest rates would be enough to erase all of the gains from the recent debt deal. In addition, higher interest rates could reverberate throughout the market, impacting everything from mortgages to small business loans - and ultimately leading to something economists call "crowd out," where fewer dollars go into growth-driving investments. The biggest concern, though, should be that these **rating downgrades could advance the day of a fiscal crisis.** Atsome point, if we don't make some changes, **investors will lose confidence** in our nation's ability to make good on its debt. When that occurs, it is possible we could experience a global economic crisis akin to the financial crisis of 2009, **except with no one available to bail out the U.S.** government. It's Not About the Money The United States has a higher burden of gross debt than any other AAA-rated country in the world. We're also the only country besides Finland to expect our debt share to grow through 2016. Our entitlement programs are growing uncontrollably as a result of an aging population and rapid health care cost growth - structural problems that make it difficult to deal with our debt.

#### Delay still destroys growth---CBO proves

Madison 11/9 Lucy is a reporter at CBS. “Obama, Boehner head for stalemate on tax cuts,” 2012, http://www.cbsnews.com/8301-250\_162-57547820/obama-boehner-head-for-stalemate-on-tax-cuts/

Democrats, however, seem to think that House Republicans will cave.¶ "Boehner wants to compromise; that's why he gave that speech," Sen. Chuck Schumer, D-N.Y., told MSNBC, of his first press conference. "He's not a hard-right guy, he's a mainstream conservative ... and I think it's going to help because the hard right is chastened in a lot of ways."¶ Even so, economists fear a **prolonged stalemate** on tackling the fiscal cliff could lead to **major setbacks for the U.S. economy**.¶ According to the nonpartisan Congressional Budget Office, inaction on the fiscal cliff could have devastating consequences to the nation's fragile growth: Its analysts warn that a prolonged deadlock could hike the unemployment rate back up to 9.1 percent by next fall, and that that preventing the defense cuts would alone save 40,000 jobs. Meanwhile, the White House lists more than 1,200 government programs that would be subject to cuts if the sequester goes into effect, in which case the number of U.S. food inspectors will go down, FEMA will be subject to cuts, and the FAA's budget will shrink.

### AT: Sequestration Good---Deficit

#### **Cliff doesn’t solve long term growth**

BPC 12 Bipartisan Policy Center's Task Force on Defense Budget and Strategy. Co-Chairs: Senator Pete Domenici, Former Chairman of the U.S. Senate Budget Committee and Senior Fellow at the BPC, Secretary Dan Glickman, Former U.S. Agricultural Secretary and Former Chairman of the U.S. House Select Intelligence Committee and Senior Fellow at the BPC, and General James Jones, Former National Security Advisor and Former Commander of U.S. European Command and Senior Fellow at the BPC. Members: Dr. Graham Allison, Director of the Belfer Center at Harvard, Ross Perot, General Peter Chiarelli, Former Vice Chief of Staff of the U.S. Army, Major General Arnold Punaro, Senior Fellow of the Defense Business Board and Former Staff Director of the U.S. Senate Armed Services Committee, Admiral Greg Johnson, Former Commander of U.S. Naval Forces in Europe, Dr. Abram Shulsky, Senior Fellow at the Hudson Institute, General George Joulwan, Former Commander of U.S. European Command, General Charles Wald, Former Deputy Commander of U.S. European Command, Read Admiral David Mercer, Former Commander of Navy Region Europe, Dr. Dov Zakheim, Former Under Secretary of Defense, and Dr. Michael O'Hanlon, Senior Fellow at the 21st Century Defense Initiative at the Brookings Institution. "Indefensible: The Sequester’s Mechanics and Adverse Effects on National and Economic Security," June, http://bipartisanpolicy.org/sites/default/files/6-7-12%20FINAL%20Sequester%20White%20Paper.pdf

Note: Charts omitted

Despite the immense pain, disruption, and uncertainty that will be caused by the sequester, it will have little impact on the trajectory of our debt. In fact, the estimated savings will delay U.S. debt from reaching 100 percent of GDP by only two years. We note “estimated savings” here because our analysis indicates that unintended cost increases, such as higher per-unit procurement costs, additional unemployment insurance benefits, and rising maintenance costs associated with maintaining older equipment all will detract from the sequester’s net deficit reduction. ¶ Our unsustainable fiscal situation is driven by health care inflation, the retirement of the baby boomers, and an inefficient tax code that raises too little revenue. Yet the sequester does nothing to address these problems, instead cutting almost exclusively from defense and non-defense discretionary spending, which are already projected to decline substantially as a percentage of the economy over the coming decade. ¶ The sequester was meant as a stick to motivate the work of the super committee. Their good-faith efforts came to naught, and now we are faced with a senseless measure that fails to address the root causes of our debt dilemma.

### Link Wall

#### The link is unique and large---new nuclear loan guarantee money is deadly for Obama

Bendery 12 Jennifer is a writer for the Huffington Post. “Obama's Budget Nixes New Money For Program That Funded Solyndra,” 2/14, <http://www.huffingtonpost.com/2012/02/14/obama-budget-solyndra-program_n_1276605.html>

In a quiet shift from the past two years, President Barack Obama's 2013 budget includes no new money for the Department of Energy loan guarantee program, the same program that House Republicans have scrutinized for losing more than $500 million in taxpayer dollars to the now-defunct solar power company, Solyndra. Obama has regularly included huge increases to the program's loan guarantee authority in his budget, though Congress has not approved his proposals. He provided a $36 billion increase for nuclear reactors in his 2011 budget, and again in his 2012 budget. He also included $200 million in credit subsidies for renewable and energy efficiency projects in his 2012 budget. **This year, he provided nothing**. Meg Reilly, a spokeswoman for the Office of Management and Budget, said in an email that Obama opted not to put new money toward the loan guarantee program this time because the administration is waiting on the results of an evaluation of the Energy Department's loan portfolio. Reilly also said the program still has "a significant amount of remaining resources" from prior years and that the focus will be on putting those funds to use. There's about $10 billion in its reserves. The Energy Department "continues to conduct due diligence and is in active negotiations with a number of additional project sponsors," Reilly said. "It's important to point out here that, as of January 2012, over $24 billion in direct loans and loan guarantees have closed to support a diverse range of over 30 wind, solar, electric vehicles and other clean energy projects projected to fund more than 50,000 jobs." But some environmental groups say Obama's budgetary shift is hugely significant because it **means no** new **money for** building **nuclear** powerplants -- and they speculate that, at least in part, they have Solyndra to thank for the shift. "The entire loan program has fallen into some disrepute on Capitol Hill ... because of Solyndra and some of the other renewable programs getting in trouble," said Michael Mariotte, executive director of Nuclear Information and Resource Service, an information hub for organizations concerned with nuclear power. The administration "may have decided to cut their losses" and stop providing new funds to the program altogether.

#### **Nuclear loan guarantees are massively controversial---Solyndra**

Schor and Northey 11 Elana and Hannah are writers at Greenwire. “Will Solyndra Scandal Spill Over to Scald Nuclear Loan Guarantees?” Oct 7, http://www.nytimes.com/gwire/2011/10/07/07greenwire-will-solyndra-scandal-spill-over-to-scald-nucle-3933.html?pagewanted=all

A nuclear-sector source who spoke on condition of anonymity gave voice to simmering concerns within the industry that the current controversy surrounding renewable loan guarantees, and a lack of understanding about how the program works, has misled lawmakers into thinking the entire DOE program could put taxpayers at risk.¶ A "**'throw the baby out with the bathwater'** mentality that seems to be pervading throughout Capitol Hill," the source said, "makes explaining the two different programs difficult."¶ Solyndra received its now-infamous $500 million-plus loan guarantee through DOE's Section 1705 program, created in 2009 economic stimulus law to foster renewable energy development, including biofuels, wind, geothermal and solar projects. Under Section 1705, the government covers a renewables company's debt obligation in the event the borrower defaults or the project fails, while also paying credit subsidy fees associated with the projects.¶ Those credit subsidies are "essentially loan loss reserve," then-DOE loan guarantee program director Jonathan Silver told lawmakers last month. Silver resigned his post yesterday amid mounting political pressure over the Solyndra bankruptcy, giving House Republicans a first scalp of sorts in their investigation (see related story).¶ Since the stimulus law was passed, DOE has paid $2.4 billion in credit subsidies for 28 projects under the 1705 program, an amount equivalent to provide loan guarantees of up to $25 billion, the agency said.¶ But fossil fuel and nuclear projects are only eligible for guarantees under a separate section of the program, numbered 1703, that requires companies to pay the credit subsidy fees and therefore share more risk. DOE has approved four conditional commitments worth $10.6 billion under 1703, including the Georgia nuclear reactor project and a $2 billion loan guarantee to support French nuclear giant Areva's uranium enrichment project in Idaho.¶ Because few on Capitol Hill are aware that 1703-funded companies must pay the credit subsidy fee as well as their equity stake in the project, nuclear companies are growing uneasy about the prospect that **divisiveness over renewable loan guarantees could lead to an elimination of the entire program**, according to the industry source.

### AT: Obama Won’t Push

#### Obama’s pushing cliff and he needs to arm twist Congress

Davis 11/7 Julie and Mike Dorning. “Obama Success on Fiscal Cliff May Hinge on Congress Ties,” 2012, http://www.businessweek.com/news/2012-11-07/obama-success-on-fiscal-cliff-may-hinge-on-better-congress-ties

President Barack Obama, his re- election victory sealed, is reaching out to congressional leaders to revive bipartisan deficit-reduction negotiations whose failure was a defining disappointment of his first term.¶ **His chances of success, say Republicans and Democrats, depend on Obama’s willingness** in his second term **to build a rapport he has lacked with lawmakers** from both parties and **take a stronger role** than he has to date in steering negotiations on sweeping changes to entitlements, taxes and spending.¶ “He’s simply going to have to take a more active and forceful role,” said Democratic strategist Jim Manley, a former aide to Senate Majority Leader Harry Reid of Nevada. “He never got involved in the nitty-gritty of the legislative process. In light of the hyper-partisanship that still surrounds Capitol Hill, he’s going to have to change, and he’s going to have to take more of a lead in breaking the logjam.”¶ There are already indications that Obama is ready to do so. The president, who said in his Nov. 6 victory speech that he was “looking forward to reaching out and working with leaders of both parties to meet the challenges we can only solve together,” spoke yesterday by telephone with the top congressional Democratic and Republican leaders of the House and Senate.

#### Obama would have to push the plan for it to pass

Izadi 8/29 Elahe is a writer at the National Journal. “Former Sen. Trent Lott, Ex-Rep. Jim Davis Bemoan Partisanship on Energy Issues,” 2012, http://www.nationaljournal.com/2012-election/former-members-bemoan-partisanship-on-energy-issues-20120829

In a climate where everything from transportation issues to the farm bill have gotten caught in political gridlock, it will take serious willingness to compromise to get formerly bipartisan energy issues moving from the current partisan standstill. ¶ “If we get the right political leadership and the willingness to put everything on the table, I don’t think this has to be a partisan issue,” former Rep. Jim Davis, D-Fla., said during a Republican National Convention event on Wednesday in Tampa hosted by National Journal and the American Petroleum Institute. ¶ Former Senate Republican Leader Trent Lott of Mississippi said that “Republicans who want to produce more of everything have to also be willing to give a little on the conservation side.” ¶ The event focused on the future of energy issues and how they are playing out in the presidential and congressional races. Four years ago, the major presidential candidates both agreed that climate change needed to be addressed. However, since then, the science behind global warming has come into question by more and more Republicans. ¶ But casting energy as a defense or jobs issue, in the current political climate, will allow debates between lawmakers to gain some steam, Lott and Davis agreed. ¶ The export of coal and natural gas, hydraulic fracturing, and how tax reform will affect the energy industries are all issues that will have to be dealt with by the next president and Congress. ¶ “The job of the next president is critical on energy and many of these issues, and the job is very simple**: adult supervision of the Congress**,” Davis said. ¶ To that, Lott acknowledged that “Congress is gridlocked because of who is there.… The middle is gone.”

# DoD CP

### AT: Perm---Do Both---2NC

#### The permutation and plan don’t solve manufacturing or prolif---only the DOD being the sole first mover guarantees U.S. companies lead SMR development---otherwise it’ll be dominated by foreign-owned firms

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

Domestic Nuclear Expertise. From the perspective of larger national security issues, if DOD does not catalyze the small reactor industry, there is a risk that expertise in small reactors could become dominated by foreign companies. A 2008 Defense Intelligence Agency report warned that the United States will become totally dependent on foreign governments for future commercial nuclear power unless the military acts as the prime mover to reinvigorate this critical energy technology with small, distributed power reactors. 38 Several of the most prominent small reactor concepts rely on technologies perfected at Federally funded laboratories and research programs, including the Hyperion Power Module (Los Alamos National Laboratory), NuScale (DOE-sponsored research at Oregon State University), IRIS (initiated as a DOE-sponsored project), Small and Transportable Reactor (Lawrence Livermore National Laboratory), and Small, Sealed, Transportable, Autonomous Reactor (developed by a team including the Argonne, Lawrence Livermore, and Los Alamos National Laboratories). However, there are scores of competing designs under development from over a dozen countries. If DOD does not act early to support the U.S. small reactor industry, there is a chance that the industry could be dominated by foreign companies.

Along with other negative consequences, the decline of the U.S. nuclear industry decreases the NRC’s influence on the technology that supplies the world’s rapidly expanding demand for nuclear energy. Unless U.S. companies begin to retake global market share, in coming decades France, China, South Korea, and Russia will dictate standards on nuclear reactor reliability, performance, and proliferation resistance.

### Perm Do CP

#### The DOD is not part of the Federal Government

DOJ 01 (US Department of Justice, Bureau of Justice Statistics. Justice Expenditures and Employment Extracts 2001)

Federal Government – the term Federal encompasses all activities of the United States Government other than employment of the Armed Forces. District of Columbia data are excluded from this category and included with data for municipalities.

### Politics Net-Benefit---2NC

#### Housing the plan in DOD avoids the entire link to politics

Coral Davenport 12, energy and environment correspondent for National Journal, covered energy and environment for Politico and Congressional Quarterly, was a fellow with the Metcalf Institute for Marine and Environmental Reporting, 2/10/12, “White House Budget to Expand Clean-Energy Programs Through Pentagon,” The National Journal

The White House believes it has figured out how to get more money for clean-energy programs touted by President Obama without having it become political roadkill in the wake of the Solyndra controversy: **Put it in the Pentagon**. While details are thin on the ground, lawmakers who work on both energy- and defense-spending policy believe the fiscal 2013 budget request to be delivered to Congress on Monday probably won't include big increases for wind and solar power through the Energy Department, a major target for Republicans since solar-panel maker Solyndra defaulted last year on a $535 million loan guarantee. But they do expect to see increases in spending on alternative energy in the Defense Department, such as programs to replace traditional jet fuel with biofuels, supply troops on the front lines with solar-powered electronic equipment, build hybrid-engine tanks and aircraft carriers, and increase renewable-energy use on military bases. While Republicans will instantly shoot down requests for fresh spending on Energy Department programs that could be likened to the one that funded Solyndra, many support alternative-energy programs for the military. "I do expect to see the spending," said Rep. Jack Kingston, R-Ga., a member of the House Defense Appropriations Subcommittee, when asked about increased investment in alternative-energy programs at the Pentagon. "I think in the past three to five years this has been going on, but that it has grown as a culture and a practice - and it's a good thing." "If Israel attacks Iran, and we have to go to war - and the Straits of Hormuz are closed for a week or a month and the price of fuel is going to be high," Kingston said, "the question is, in the military, what do you replace it with? It's not something you just do for the ozone. It's strategic." Sen. Lindsey Graham, R-S.C., who sits on both the Senate Armed Services Committee and the Defense Appropriations Subcommittee, said, "I don't see what they're doing in DOD as being Solyndra." "We're not talking about putting $500 million into a goofy idea," Graham told National Journal . "We're talking about taking applications of technologies that work and expanding them. I wouldn't be for DOD having a bunch of money to play around with renewable technologies that have no hope. But from what I understand, there are renewables out there that already work." A senior House Democrat noted that this wouldn't be the first time that the **Pentagon has been utilized to advance policies that wouldn't otherwise be supported**. "They did it in the '90s with medical research," said Rep. Henry Waxman, D-Calif., ranking member of the House Energy and Commerce Committee. In 1993, when funding was frozen for breast-cancer research programs in the National Institutes of Health, Congress boosted the Pentagon's budget for breast-cancer research - to more than double that of the health agency's funding in that area. **Politically, the strategy makes sense**. Republicans are ready to fire at the first sign of any pet Obama program, and renewable programs at the Energy Department are an exceptionally ripe target. That's because of Solyndra, but also because, in the last two years, the Energy Department received a massive $40 billion infusion in funding for clean-energy programs from the stimulus law, a signature Obama policy. When that money runs out this year, a request for more on top of it would be met with flat-out derision from most congressional Republicans. Increasing renewable-energy initiatives at the Pentagon can also help Obama advance his broader, national goals for transitioning the U.S. economy from fossil fuels to alternative sources. As the largest industrial consumer of energy in the world, the U.S. military can have a significant impact on energy markets - if it demands significant amounts of energy from alternative sources, it could help scale up production and ramp down prices for clean energy on the commercial market. Obama acknowledged those impacts in a speech last month at the Buckley Air Force Base in Colorado. "The Navy is going to purchase enough clean-energy capacity to power a quarter of a million homes a year. And it won't cost taxpayers a dime," Obama said. "What does it mean? It means that the world's largest consumer of energy - the Department of Defense - is making one of the largest commitments to clean energy in history," the president added. "That will grow this market, it will strengthen our energy security." Experts also hope that Pentagon engagement in clean-energy technology could help yield breakthroughs with commercial applications. Kingston acknowledged that the upfront costs for alternative fuels are higher than for conventional oil and gasoline. For example, the Air Force has pursued contracts to purchase biofuels made from algae and camelina, a grass-like plant, but those fuels can cost up to $150 a barrel, compared to oil, which is lately going for around $100 a barrel. Fuel-efficient hybrid tanks can cost $1 million more than conventional tanks - although in the long run they can help lessen the military's oil dependence, Kingston said Republicans recognize that the up-front cost can yield a payoff later. "It wouldn't be dead on arrival. But we'd need to see a two- to three-year payoff on the investment," Kingston said. Military officials - particularly Navy Secretary Ray Mabus, who has made alternative energy a cornerstone of his tenure - have been telling Congress for years that the military's dependence on fossil fuels puts the troops - and the nation's security - at risk. Mabus has focused on meeting an ambitious mandate from a 2007 law to supply 25 percent of the military's electricity from renewable power sources by 2025. (Obama has tried and failed to pass a similar national mandate.) Last June, the DOD rolled out its first department-wide energy policy to coalesce alternative and energy-efficient initiatives across the military services. In January, the department announced that a study of military installations in the western United States found four California desert bases suitable to produce enough solar energy - 7,000 megawatts - to match seven nuclear power plants. And so far, those **moves have met with approval from congressional Republicans**. Even so, any request for new Pentagon spending will be met with greater scrutiny this year. The Pentagon's budget is already under a microscope, due to $500 billion in automatic cuts to defense spending slated to take effect in 2013. But even with those challenges, clean-energy spending probably won't stand out as much in the military budget as it would in the Energy Department budget. Despite its name, the Energy Department has traditionally had little to do with energy policy - its chief portfolio is maintaining the nation's nuclear weapons arsenal. Without the stimulus money, last year only $1.9 billion of Energy's $32 billion budget went to clean-energy programs. A spending increase of just $1 billion would make a big difference in the agency's bottom line. But it would probably be easier to tuck another $1 billion or $2 billion on clean-energy spending into the Pentagon's $518 billion budget. Last year, the Pentagon spent about $1 billion on renewable energy and energy-efficiency programs across its departments.

#### DOD is key – solves, overcomes restrictions and doesn’t link to politics

Madia 12 William, Chairman of the Board of Overseers and Vice President for the SLAC National Accelerator Laboratory at Stanford University, Spring, "Small Modular Reactors: A Potential Game-changing Technology", energyclub.stanford.edu/index.php/Journal/Small\_Modular\_Reactors\_by\_William\_Madia

To determine if SMRs hold the potential for changing the game in carbon-free power generation, it is imperative that we test the design, engineering, licensing, and economic assumptions with some sort of public-private development and demonstration program. Instead of having government simply invest in research and development to “buy down” the risks associated with SMRs, I propose a more novel approach. **Since the federal government is a major power consumer, it should commit to being the “first mover” of SMRs**. This means purchasing the first few hundred MWs of SMR generation capacity and dedicating it to federal use. The advantages of this approach are straightforward. The government would both reduce licensing and economic risks to the point where utilities might invest in subsequent units, thus jumpstarting the SMR industry. It would then also be the recipient of additional carbon-free energy generation capacity. **This seems like a very sensible role for government to play** without getting into the heavy politics **of nuclear waste, corporate welfare, or carbon taxes**.¶ If we want to deploy power generation technologies that can realize near-term impact on carbon emissions safely, reliably, economically, at scale, and at total costs that are manageable on the balance sheets of most utilities, **we must consider SMRs as a key component of our national energy strategy.**

### Solvency

#### TEXT: The United States Department of Defense should acquire, via alternative financing, small modular thermal reactors to provide electricity for military installations in the United States.

DOD leadership catalyzes SMR development and spills over to commercialization

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

The preceding analysis suggests that **DOD should** seriously consider **taking a leadership role on small reactors**. This new technology has the potential to solve two of the most serious energy-related problems faced by the department today. Small reactors could island domestic military bases and nearby communities, thereby protecting them from grid outages. They could also drastically reduce the need for the highly vulnerable fuel convoys used to supply forward operating bases abroad. ¶ The technology being proposed for small reactors (much of which was originally developed in U.S. Government labs) is promising. A number of the planned designs are self-contained and highly mobile, and could meet the needs of either domestic or forward bases. Some promise to be virtually impervious to accidents, with design characteristics that might allow them to be used even in active operational environments. These reactors are potentially safer than conventional light water reactors. The argument that this technology could be useful at domestic bases is virtually unassailable. The argument for using this technology in operational units abroad is less conclusive; however, because of its potential to save lives, it warrants serious investigation.¶ Unfortunately, the technology for these reactors is, for the most part, caught between the drawing board and production. Claims regarding the field utility and safety of various reactors are plausible, but authoritative evaluation will require substantial investment and technology demonstration. **In the U.S. market, DOD could play an important role** in this area. In the event that the U.S. small reactor industry succeeds without DOD support, the types of designs that emerge might not be useful for the department since some of the larger, more efficient designs that have greater appeal to private industry would not fit the department’s needs. Thus, there is significant incentive for DOD to intervene to provide a market, both to help the industry survive and to shape its direction.¶ **Since the 1970s, in the U**nited **S**tates, only the military **has overcome the considerable barriers to building nuclear reactors**. This will probably be the case with small reactors as well. If DOD leads as a first mover in this market—initially by providing analysis of costs, staffing, reactor lines, and security, and, when possible, by moving forward with a pilot installation—the new technology will likely survive and be applicable to DOD needs**. If DOD does not, it is possible the technology will be unavailable in the future for either U.S. military or commercial use.**

#### The CP is comparatively more effective than the plan---SMRs have an absolute requirement for more R&D that only government financial support solves---DOD needs an explicit strategy

Matt Stepp et al. 11, specialist in clean energy innovation at the Information Technology and Innovation Foundation, formerly Fellow at the Breakthrough Institute, et al, May 2011, “Ten Principles for Creating a New U.S. Clean Energy Policy,” http://www.itif.org/files/2011-guiding-principles.pdf

R&D is fundamentally the most important part of an effective clean energy innovation policy. But by itself it is not enough. Spurring clean energy innovation means supporting innovation from the back-end (basic science and R&D) through the front-end (testing, demonstration, deployment, and commercialization). Clean energy policy should support a robust innovation system from beginning to end, ensuring that all stages of technology development are optimally sustained.

Clean energy innovation includes bridging technologies across the “valleys of death.” The first valley of death – the phase in development between R&D and prototyping the first generation of a technology – is crucially important because it takes the innovation out of the lab and proves its commercial viability. But building the first prototype of a radically new solar installation or demonstrating a new small modular nuclear reactor is capital intensive and risky. Because of this, the private sector has historically provided little support for this stage of development and would rather wait until new technologies yield a higher rate of return. So the federal government has played a significant role in developing many of the last century’s breakthrough technologies through demonstration and test-bed projects. Past breakthrough technologies like the Internet, nuclear power plants, and jet engines were initially built and tested at federal labs and through private sector collaborations with the military. Currently, the United States is just beginning to implement strategies for bridging technologies from the lab to demonstration, such as through the agreement between ARPA-E and the Department of Defense to test advanced energy technologies suitable for the militaries needs. But these policies are not permanent, as they are enforced at the agency level without a national strategy or Congressional mandate.

The second valley of death is the phase in development between tech demonstration and commercialization. 12 Clean energy must compete in an entrenched energy sector filled with significant institutional, political, and regulatory barriers to deployment. But it’s expensive to produce the first generation of technology after development and demonstration, making it a risky and potentially costly business decision for utilities and consumers. Clean energy may need up-front financing to build the first generation of new clean energy technologies and to hurdle barriers to deployment. Without it, the high cost of up-front investment is a significant deterrent for utilities to choose brand new advanced solar, wind, or small modular reactors (SMRs) over well established coal or natural gas plants. New clean energy is stuck in what Coalition for Green Capital’s Ken Berlin calls, “the chick and egg problem.” 13 Breakthrough clean energy needs first-generation investment after demonstration and testing in order to evolve into lower cost, better understood secondand third-generation tech. But utilities and consumers will only invest in breakthrough tech with greater cost and market certainty. The federal government can and should play a role in supporting this transition or what leading clean energy policy expert Bill Bonvillian calls “beefing up the back end of clean energy.” 14 This is different than simply subsidizing deployment of existing mature clean energy technologies with little hope for dramatic price reductions of next generation innovations.

#### No solvency deficits---SMR designs aren’t close to ready for licensing, so there’s no way removing licensing restrictions can be vital to solve the case---DOD lead-role primes the pump for the industry

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

It should be emphasized that none of the small reactor designs currently under consideration for commercial development have been licensed by the NRC, let alone constructed, demonstrated, or tested. Given the early stage of the technology, **DOD’s “first mover” pursuit of small reactors could therefore have a profound influence on the** development of the **industry. DOD does have substantial experience** with nuclear energy—historically, both the U.S. Army and Navy have incorporated nuclear reactors into their operations6—**that could make it particularly well suited to taking a leading role in testing small reactors**.¶ The initial analysis offered in this paper suggests that small reactors could be **instrumental** in addressing DOD’s challenges of grid insecurity at domestic installations and fuel supply at forward operating bases. The next step is to conduct more fine-grained analysis to answer questions about costs, personnel needs, technological options, and security and transportability issues. The Secretary of Defense’s feasibility study and the research undertaken by the DOD/ DOE/NRC working group are crucial steps forward. We recommend that DOD continue to invest in research and analysis on small reactor options, with a goal of building a demonstration plant as soon as the technical, financial, and regulatory hurdles have been adequately resolved.

#### DOD investment in SMRs is uniquely likely to cause commercial spillover---even if other DOD energy initiatives generally don’t

Daniel Sarewitz 12, Co-Director, Consortium for Science, Policy and Outcomes, Arizona State University; and Samuel Thernstrom Senior Climate Policy Advisor, Clean Air Task Force, March 2012, “Energy Innovation at the Department of Defense: Assessing the Opportunities,” p. 3

Despite the apparent potential for progress in linking DoD to energy innovation in light of these attributes, there are also real reasons to question how much, or how easily, DoD’s innovation capacity can or will be applied to the energy challenges that are most relevant to our national and global environmental goals. DoD others important institutional lessons, and models for innovation driven by the defense mission—but lessons and models that may not always translate easily to the energy context.

DoD’s ability to house supply and demand under one roof, and to produce lasting improvements in complex systems over time, driven in part by large, sustained procurement programs, is nearly unique—and unlikely to be widely reproduced in the energy and climate context. There are significant constraints upon what DoD is likely to do directly in this area; the department is unlikely to become an all-purpose engine of energy innovation. Instead, it must be assumed that DoD innovation efforts will focus on technologies that are most likely to contribute to the military’s mission. The extent to which these technologies have the potential to catalyze innovation relevant to large-scale reduction of global greenhouse gas emissions remains to be seen. An important open question in this regard is the degree to which DoD will see zero carbon baseload energy generation for its fixed installations as an area worthy of investments. For example, the development and deployment of advanced nuclear reactor designs such as small modular reactors is one potentially important opportunity to advance both military and civilian interests.

The Challenge

One challenge for policymakers concerned about energy and climate, then, is to maximize the ways in which DoD can contribute directly to progress on key energy-related technologies in ways that advance, or at least do not impede, the security mission. But policymakers must also think seriously about the ways in which the DoD innovation model can be applied beyond its institutional borders, and about what the DoD experience suggests with regards to the prospects for other proposals to enhance our national energy innovation systems.

# ASPEC

#### Agency discussions are essential to education about energy policy

Valentine 10 Scott Victor Valentine - Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore, “Canada’s constitutional separation of (wind) power” Energy Policy, Volume 38, Issue 4, April 2010,

http://www.sciencedirect.com/science/article/pii/S0301421509009227

Should policymakers facilitate renewable energy capacity development **through distributive policies (i.e. subsidies), regulatory policies** (i.e. CO2 emission caps), redistributive policies (i.e. carbon taxes) or constituent policies (i.e. green energy campaigns) (Lowi, 1972)? A preponderance of research has gone into addressing this question from **various conceptual perspectives**, which include popular themes such as comparing the efficacy of various policy instruments (cf. Blakeway and White, 2005; EWEA, 2005; Menza and Vachona, 2006; cf. Lipp, 2007), championing the efficacy of one specific instrument (cf. Sorrell and Sijm, 2003; cf. Mathews, 2008), assessing the impact that socio-economic dynamics have on the selection or design of policy instruments (cf. Maruyama et al., 2007; cf. Huang and Wu, 2009), investigating policy instrument selection in stakeholder networks (cf. Rowlands, 2007; cf. Mander, 2008), investigating hurdles to effective policy instruments implementation (cf. Alvarez-Farizo and Hanley, 2002), and examining challenges associated with evaluating policy instrument efficacy (cf. Mallon, 2006; cf. Vine, 2008).

**Despite the proliferation of studies on policy instruments in the** renewable **energy policy field**, there are no prominent examples of studies which investigate the impact that the federal form of government has on strategic selection of policy instruments. Federal government systems are characterized by power-sharing between the central authority and the regions comprising the federation. For federal policymakers, the manner in which power is divided can pose significant policy-making problems (Thorlakson, 2003). Specifically, federal attempts to apply coercive policy instruments in policy areas of regional or concurrent (shared) authority can generate political, legal or operational resistance by regional authorities. Even when developing policy for areas under federal jurisdiction, regional authorities have to avail their various “thrust and riposte” tactics to undermine the efficacy of disagreeable federal policies (Braun et al., 2002). Given that there are 24 nations with a federal government structure (including the major economies of the United States, Germany, Canada, Australia, Russia, India, Spain, Brazil and Mexico), a **formal enquiry into the impact that federal structure has on renewable energy policy instrument development is merited.**

# Market CP

## CP

#### TEXT: The United States federal government should establish a cap-and-trade system for carbon emissions in the United States. The federal government should reduce the corporate income tax and business capital-gains taxes. The United States federal government should phase out all energy subsidies.

#### Targeting specific tech fails---cap and trade is key and solves the case better

Morris et al 12 Adele C. Morris, Fellow and Deputy Director of the. Climate and Energy Economics project at Brookings, Pietro S. Nivola, Charles Schultze, Brookings Scholars, "CLEAN ENERGY:REVISITING THE CHALLENGES OF INDUSTRIAL POLICY" June 4 www.brookings.edu/~/media/research/files/papers/2012/6/04%20clean%20energy%20morris%20nivola%20schultze/04\_clean\_energy\_morris\_nivola\_schultze.pdf

Public investments of these magnitudes, targeted at specific industries, arguably constitute an industrial policy, albeit a sectoral one, unlike the earlier proposals of the 1980's —that is, a government strategy to steer resources toward select producers or technologies. The rationale and efficacy of these clean-energy expenditures call for scrutiny.

Proponents offer numerous reasons for scaling up particular energy technologies at the taxpayer's expense. One set of reasons involves the need to remediate market failures that have not been corrected by other policies. For example, clean-energy technologies are said to emit fewer greenhouse gases than do traditional sources per unit of energy produced. The United States does not have an economy-wide policy to control greenhouse gases, most notably, one that puts a price on C02 that reflects the environmental harm associated with use of fossil fuels.

A far more effective policy than subsidies for clean energy research, development and demonstration would be a tax or a cap-and-trade regime that would put an appropriate price on carbon and other greenhouse gases. Properly implemented, this alternative approach would help level the playing field for greener energy sources, for it would require emitters to pay prices that reflect the costs their emissions impose on society. The enhanced efficiency that would result has been widely recognized by economists.6 True costs would flow to purchasers of goods and services that require energy, suitably inducing conservation. Emitters would have incentives to invest in equipment and new production techniques, use alternative fuels, and seek other methods to reduce emissions. And America's innovators would channel their efforts into inventing, scaling up, and marketing competitive forms of clean energy. However, because existing market signals do not suffice to encourage climate-friendly technologies, carefully targeted federal funding seems warranted. But as we explain later, it is ironically only after incorporating the social costs of energy into market prices that many clean energy subsidies will succeed in deploying new technologies.

#### Subsidy elimination levels the playing field---solves best

WSJ 12 "The Energy Subsidy Tally" Aug 18 lexis

So for every tax dollar that goes to coal, oil and natural gas, wind gets $88 and solar $1,212. After all the hype and dollars, in 2010 wind and solar combined for 2.3% of electric generation -- 2.3% for wind and 0% and a rounding error for solar. Renewables contributed 10.3% overall, though 6.2% is hydro. Some "investment."

Zooming out for all energy, the Congressional Research Service did its own analysis of tax incentives last year. It found that in 2009 fossil fuels accounted for 78% of U.S. energy production but received only 12.6% of tax incentives. Renewables accounted for 11% of energy production but received 77% of the tax subsidies -- and that understates the figure because it leaves out direct spending.

By the way, these subsidy comparisons don't consider that the coal, oil, and natural gas industries paid more than $10 billion of taxes in 2009. Wind and solar are net drains on the Treasury.

All of this suggests a radical idea. Why not eliminate all federal energy subsidies? This would get the government out of the business of picking winners and losers -- mostly losers.

Mr. Obama's plan to eliminate oil and gas subsidies would lower the budget deficit by less than $3 billion a year, but creating a true level playing field in energy, and allowing markets to determine which energy sources are used, would save $37 billion. That's an energy plan that makes sense.

#### Incentives cause government dependence and undermines innovation

Loris 11 Nicolas Loris is an analyst in the Heritage Foundation’s Roe Institute of Economic Policy Studies. "Power Down the Subsidies to Energy Producers" Aug 3 www.heritage.org/research/commentary/2011/08/power-down-the-subsidies-to-energy-producers

America has an energy addiction - and it’s not an addiction to oil, as many politicians would have you think. It’s an addiction to government subsidies. The addicts, you see, are energy producers, not the consumers.

Their growing dependence on federal handouts is the real cause of America’s energy crisis. Energy subsidies have needlessly wasted taxpayer dollars, retarded commercialization of new technologies and failed to reduce our reliance on foreign energy sources. Washington would do well to end all energy subsidies.

Energy subsidies come in numerous forms ranging from direct expenditures to targeted tax breaks, from production mandates to loan guarantees. Basically, any public policy that favorsthe production or consumption of one type of energy over another can be considered a subsidy.

None of them come cheap. According to the Energy Information Agency, the federal government gave the energy industry $8.2 billion in subsidies and financial aid in 1999. This figure more than doubled to $17.9 billion in 2007 and more than doubled again to $37.2 billion last year.

But the damage subsidies inflict on our economy extends well beyond direct costs. A special endorsement from the government artificially props up that technology. This reduces the incentive for the producer to become cost-competitive, stifles innovation and encourages government dependence.

The federal government has no business picking commercial winners and losers. That’s the job of the marketplace. Indeed, it’s doubly damaging when government decides to manipulate the market through subsidies, because government - almost invariably - picks losers. That’s not surprising, because companies that seek handouts most strenuously are those that cannot compete without them.

#### Picking winners undercuts SMR innovation

Jack Spencer 11, senior research fellow @ Heritage and Nicolas Loris, ditto, 2-2-2011, “

A Big Future for Small Nuclear Reactors?”, Backgrounder no. 2514

Too many policymakers believe that Washington is equipped to guide the nuclear industry to success. So, instead of creating a stable regulatory environment where the market value of different nuclear technologies can determine their success and evolution, they choose to create programs to help industry succeed. Two recent Senate bills from the 111th Congress, the Nuclear Energy Research Initiative Improvement Act (S. 2052) and the Nuclear Power 2021 Act (S. 2812), are cases in point. Government intervention distorts the normal market processes that, if allowed to work, would yield the most efficient, cost-effective, and appropriate nuclear technologies. Instead, the federal government picks winners and losers through programs where bureaucrats and well-connected lobbyists decide which technologies are permitted, and provides capital subsidies that allow investors to ignore the systemic problems that drive risk and costs artificially high. This approach is especially detrimental to SMRs because subsidies to LWRs distort the relative benefit of other reactor designs by artificially lowering the cost and risk of a more mature technology that already dominates the marketplace.

#### Solves great power war

Baru 9 **Sanjaya** **is a Professor at the Lee Kuan Yew School in Singapore Geopolitical Implications of the Current Global Financial Crisis, Strategic Analysis, Volume 33, Issue 2 March 2009 , pages 163 – 168**

Hence, economic policies and performance do have **strategic consequences.**2 In the modern era, the idea that strong economic performance is the **foundation of power** was argued most persuasively by historian Paul Kennedy. 'Victory (in war)', Kennedy claimed, 'has repeatedly gone to the side with more flourishing productive base'.3 Drawing attention to the interrelationships between economic **wealth, technological innovation, and the ability of states to** efficiently **mobilize economic and technological resources for power projection and national defence**, Kennedy argued that nations that were able to better combine military and economic strength scored over others. 'The fact remains', Kennedy argued, 'that all of the major shifts in the world's military-power balance have followed alterations in the productive balances; and further, that the rising and falling of the various empires and states in the international system has been confirmed by the outcomes of the **major Great Power wars**, where victory has always gone to the side with the greatest material resources'.4 In Kennedy's view, the geopolitical consequences of an economic crisis, or even decline, would be transmitted through a nation's inability to find adequate financial resources to simultaneously sustain economic growth and **military power**.

## K

#### You should prioritize questions of epistemology---in the context of economics the knowledge-production process is more important than the outcomes

Anderson 89 Thomas, Libertarian Alliance, "Economics and Knowledge" Economic Notes No. 21 www.libertarian.co.uk/lapubs/econn/econn021.pdf

Before there can be a substantial or meaningful advance of knowledge in any discipline, there must be a firm foundation laid in a theory of knowledge, an epistemology, and its application to the particular discipline. Obviously, one's conclusions cannot be any sounder than one's method of attaining them. With a few rare and wonderful exceptions, the intellectual leaders of today do not concern themselves publicly with epistemology, let alone with sound epistemology, or understandable epistemology. So there is a large vacuum in this area, and for obvious reasons especially in writings designed as popularizations. Those who hold positions of influence on recognised intellectual establishments may consider these questions when they congregate in little esoteric groups, but the whole field is supposed to be outside the realm of the average student, citizen or voter.

Continued…

A sound theory of knowledge is the only path leading to the rescue of economics. The great free market economists and philosophers are increasingly realising this and are laboring mightily to make up the deficit. All students of economics should join them.Remember to apply sound principles of knowledge theory to anything you study. In all of your writings or speeches, whether highly sublime and original, or merely popularizations, remember to trace back, isolate, present and check your fundamental premises.

#### The affirmative forecloses the ability of markets to solve---their energy policy makes impacts inevitable and cause policy failure

Robinson 8 Colin, Institute of Economic Affairs “Climate Change Policy: Challenging the Activists,” http://www.iea.org.uk/files/upld-book440pdf?.pdf

There is, however, more to the apocalyptic forecast than that because it always contains a call to action. It comes in two parts. Part one is the ‘conditional’ forecast – what would happen on unchanged policy. Part two is the plan – what should be done to avoid the dire consequences that the forecast reveals. The latter-day apocalyptic forecaster, when turning to the plan, almost invariably recommends centralised solutions carried out by governments and international organisations. It would be unusual, if not unprecedented, for someone, having seen the apocalypse, to recommend leaving solution of the foreseen problems entirely to decentralised market forces. There must be coordinated, centralised national government or international action so that someone is seen to be doing something. Recom- mendations are usually for direct government intervention in the market by targets, regulations, government-controlled investment programmes, taxes or sometimes ‘market instruments’ (of which more later).

But there is a serious problem with the view that centralised action, via governments and international organisations, is required to avoid the apocalypse. This form of action suffers from the same inherent problems as does central planning, which has, wherever it has been tried, failed. Briefly, there are two reasons. First, the information required for centralised action to work – which is information about the future – cannot readily be gathered. Information is not available off the shelf, to be collected together in Whitehall or similar locations, because it is essentially decentralised and much of it is tacit. The production and dissemination of information are primarily market phenomena and the suppression of markets, which is the inevitable consequence of central planning, also suppresses the information that planners would need if they were to operate successfully.

The second problem is that, even if the information were avail- able, the incentives to deal with problems are lacking. There is no Whitehall counterpart to the powerful self-interest motives to solve problems that exist in markets. On the contrary, the pursuit of self-interest by people in organisations that have a monopoly of policy-making is most unlikely to be to the public benefit. Public choice theory has shown the dangers of assuming, as much main- stream economic theory does, that politicians and bureaucrats, domestic and international, are wise, far-sighted and disinterested and will simply identify and then pursue the ‘public good’.

By contrast, the market system is essentially a massive problem- solving mechanism. Markets may appear to operate slowly and ‘imperfectly’ but they do so surely: their existence is the reason why past apocalyptic forecasts have not come true. Competitive markets are powerful adaptive systems which contain strong incentives to solve the problems of the day, whether trivial or apparently serious. Unfortunately, the essence of the market’s functions is often clouded by the mechanistic neoclassical models used by many economists which concentrate on end-states of markets rather than the processes by which they adjust to change. Hayek’s insight – that competition is a process of discovery, quite different from stylised textbook models of competition which show the states of markets once competition has been exhausted – is the key to understanding the problem-solving power of markets (Hayek, 1948). Competitive markets provide the information and the incentives that spark the discovery process in which human ingenuity is exercised to deal with economic, social and technological problems. Marketplace incentives, operating mainly through price signals, induce entrepreneurs to seek out and then exploit market opportunities so as to make profits. Sometimes, entrepreneurial action may result in no more than the discovery of a slightly cheaper way of making a product or a slightly more efficient method of organising a firm. At other times, it may result in a major invention and its subsequent exploitation with global consequences. On a Hayekian view, the apocalyptic forecaster/ planner who believes he or she can see a long way into the future and has the answer to the world’s problems, substituting for and surpassing the problem-solving capabilities of markets, has been misled into the ‘pretence of knowledge’, if not into a ‘fatal conceit’ (Hayek and Bartley, 1988).

Of course, no one can be sure that there will always be an economic or technological fix for every conceivable problem that ever arises. But past history, including the failure of predicted catastrophes to materialise, suggests that market systems act effectively to deal even with predicted global disasters. Russell Lewis’s chapter in this volume gives some examples of past false predictions of catastrophe. One particularly apposite example, on which it is worth dwelling because it is the most recent and the one that bears similarities to the concerns of today, is the ‘energy crisis’ of the 1970s when there was a consensus that rapid depletion of energy resources (especially crude oil), allied with the exploitation of monopoly power by the Organisation of Petroleum Exporting Countries (OPEC), would result in ever-rising energy prices. ‘The days of cheap energy are gone for ever’ was the slogan of many commentators, unwise enough to think they could see ‘for ever’ into the future. Only centralised action by governments and inter- national bodies could, it was argued, avoid a major world energy crisis. In the event, despite the almost total absence of the government and international action that had been deemed so important, energy markets adjusted to the ‘crisis’ so that, within ten years, the world was (by the mid-1980s) awash with oil and OPEC was meeting to try to prop up crude oil prices. Instead of crude oil prices tripling in real terms by the end of the century, as had been the consensus of forecasts in 1980, they began to decline almost as soon as the fore- casts were made and halved by the end of the century. Even in the first half of 2008, despite increases in crude prices in the previous few years, they were still lower in real terms than in 1980.3

#### This is an a priori voting issue---sound economic epistemology is key to solve any impact

Reisman 96 George, Pepperdine University Professor Emeritus of Economics, Capitalism: A Treatise on Economics, http://www.capitalism.net/Capitalism/Economics%20and%20Capitalism.htm

In the absence of a widespread, serious understanding of the principles of economics, the citizens of an advanced, division-of-labor society, such as our own, are in a position analogous to that of a crowd wandering among banks of computers or other highly complex machinery, with no understanding of the functioning or maintenance or safety requirements of the equipment, and randomly pushing buttons and pulling levers. This is no exaggeration. In the absence of a knowledge of economics, our contemporaries feel perfectly free to enact measures such as currency depreciation and price controls. They feel free casually to experiment with the destruction of such fundamental economic institutions as the freedom of contract, inheritance, and private ownership of the means of production itself. In the absence of a knowledge of economics, our civilization is perfectly capable of destroying itself, and, in the view of some observers, is actually in the process of doing so.

Thus, the importance of economics consists in the fact that ultimately our entire modern material civilization depends on its being understood. What rests on modern material civilization is not only the well-being but also the very lives of the great majority of people now living. In the absence of the extensive division of labor we now possess, the production of modern medicines and vaccines, the provision of modern sanitation and hygiene, and the production even of adequate food supplies for our present numbers, would simply be impossible. The territory of the continental United States, for example, counting the deserts, mountains, rivers, and lakes, amounts to less than nine acres per person with its present population—not enough to enable that population to survive as primitive farmers. In Western Europe and Japan, the problem of overpopulation would, of course, be far more severe. Needless to say, the present vast populations of Asia, Africa, and Latin America would be unable to survive in the absence of Western food and medical supplies.

# Solvency

## 1NC

#### Status quo loan guarantees are enough---current levels for new nuclear haven’t been used up

Wang 11 Pamir, “Federal Clean Energy Loan Guarantees”, Non Proliferation Policy Education Center, http://www.npolicy.org/userfiles/file/ure%20Risk-Chapter%201.pdf

Mr. Rowe has also argued against expanding the federal energy loan guarantee program. He says expanding the program is unnecessary, and he has a good point. $18.5 billion in loan guarantees has already been set aside for new nuclear construction, and yet only one loan guarantee has been disbursed in the six years since the passage of EPACT 2005. With $10 billion remaining, the expansion of loan guarantee funds will add unnecessary risk to the federal government’s portfolio. As already noted, the companies now slated to receive loan guarantees are also some of the likeliest to default. Keeping the current loan guarantee ceiling, then, risks little. Certainly, the longer the further expansion of federal energy loan guarantees is put on hold by Congress, the stronger the facts against loan guarantees will resonate.

#### Solvency takes decades---SMRs require re-orienting the entire manufacturing industry

Dylan Ryan 11, Masters in Mechanical Engineering, expertise in energy, sustainability, Computer Aided Engineering, renewables technology; Ph.D. in solar energy systems, 2011, “Part 10 – Small modular reactors and mass production options,” <http://daryanenergyblog.wordpress.com/ca/part-10-smallreactors-mass-prod/>

So there are a host of practical factors in favour smaller reactors. But what’s the down side? Firstly, economies of scale. With a small reactor, we have all the excess baggage that comes with each power station, all the fixed costs and a much smaller pay-off. As I noted earlier, even thought many smaller reactors are a lot safer than large LWR’s (even a small LWR is somewhat safer!) you would still need to put them under a containment dome. It’s this process of concrete pouring that is often a bottle neck in nuclear reactor construction. We could get around the problem by clustering reactors together, i.e putting 2 or 4 reactors not only on the same site but under the same containment dome. The one downside here is that if one reactor has a problem, it will likely spread to its neighbours. How much of a showstopper this fact is depends on which type of reactors we are discussing. Also, in the shorter term small reactors would be slower to build, especially many of those we’ve been discussing, given that they are often made out of non-standard materials. Only a few facilities in the world could build them as the entire nuclear manufacturing industry is currently geared towards large LWR’s. Turning that juggernaut around would take decades. So by opting for small reactors while we’d get safer more flexible reactors, we be paying for it, as these reactors would be slower to build (initially anyway) and probably more expensive too.

#### Nuclear expansion impossible – laundry list of supply and siting constraints

Lisa Zyga, 5-11-2011, “Why nuclear power will never supply the world’s energy needs,” PhysOrg, http://phys.org/news/2011-05-nuclear-power-world-energy.html

The 440 commercial nuclear reactors in use worldwide are currently helping to minimize our consumption of fossil fuels, but how much bigger can nuclear power get? In an analysis to be published in a future issue of the Proceedings of the IEEE, Derek Abbott, Professor of Electrical and Electronic Engineering at the University of Adelaide in Australia, has concluded that nuclear power cannot be globally scaled to supply the world’s energy needs for numerous reasons. The results suggest that we’re likely better off investing in other energy solutions that are truly scalable. As Abbott notes in his study, global power consumption today is about 15 terawatts (TW). Currently, the global nuclear power supply capacity is only 375 gigawatts (GW). In order to examine the large-scale limits of nuclear power, Abbott estimates that to supply 15 TW with nuclear only, we would need about 15,000 nuclear reactors. In his analysis, Abbott explores the consequences of building, operating, and decommissioning 15,000 reactors on the Earth, looking at factors such as the amount of land required, radioactive waste, accident rate, risk of proliferation into weapons, uranium abundance and extraction, and the exotic metals used to build the reactors themselves. “A nuclear power station is resource-hungry and, apart from the fuel, uses many rare metals in its construction,” Abbott told PhysOrg.com. “The dream of a utopia where the world is powered off fission or fusion reactors is simply unattainable. Even a supply of as little as 1 TW stretches resources considerably.” His findings, some of which are based on the results of previous studies, are summarized below. Land and location: One nuclear reactor plant requires about 20.5 km2 (7.9 mi2) of land to accommodate the nuclear power station itself, its exclusion zone, its enrichment plant, ore processing, and supporting infrastructure. Secondly, nuclear reactors need to be located near a massive body of coolant water, but away from dense population zones and natural disaster zones. Simply finding 15,000 locations on Earth that fulfill these requirements is extremely challenging. Lifetime: Every nuclear power station needs to be decommissioned after 40-60 years of operation due to neutron embrittlement - cracks that develop on the metal surfaces due to radiation. If nuclear stations need to be replaced every 50 years on average, then with 15,000 nuclear power stations, one station would need to be built and another decommissioned somewhere in the world every day. Currently, it takes 6-12 years to build a nuclear station, and up to 20 years to decommission one, making this rate of replacement unrealistic. Nuclear waste: Although nuclear technology has been around for 60 years, there is still no universally agreed mode of disposal. It’s uncertain whether burying the spent fuel and the spent reactor vessels (which are also highly radioactive) may cause radioactive leakage into groundwater or the environment via geological movement. Accident rate: To date, there have been 11 nuclear accidents at the level of a full or partial core-melt. These accidents are not the minor accidents that can be avoided with improved safety technology; they are rare events that are not even possible to model in a system as complex as a nuclear station, and arise from unforeseen pathways and unpredictable circumstances (such as the Fukushima accident). Considering that these 11 accidents occurred during a cumulated total of 14,000 reactor-years of nuclear operations, scaling up to 15,000 reactors would mean we would have a major accident somewhere in the world every month. Proliferation: The more nuclear power stations, the greater the likelihood that materials and expertise for making nuclear weapons may proliferate. Although reactors have proliferation resistance measures, maintaining accountability for 15,000 reactor sites worldwide would be nearly impossible. Uranium abundance: At the current rate of uranium consumption with conventional reactors, the world supply of viable uranium, which is the most common nuclear fuel, will last for 80 years. Scaling consumption up to 15 TW, the viable uranium supply will last for less than 5 years. (Viable uranium is the uranium that exists in a high enough ore concentration so that extracting the ore is economically justified.) Uranium extraction from seawater: Uranium is most often mined from the Earth’s crust, but it can also be extracted from seawater, which contains large quantities of uranium (3.3 ppb, or 4.6 trillion kg). Theoretically, that amount would last for 5,700 years using conventional reactors to supply 15 TW of power. (In fast breeder reactors, which extend the use of uranium by a factor of 60, the uranium could last for 300,000 years. However, Abbott argues that these reactors’ complexity and cost makes them uncompetitive.) Moreover, as uranium is extracted, the uranium concentration of seawater decreases, so that greater and greater quantities of water are needed to be processed in order to extract the same amount of uranium. Abbott calculates that the volume of seawater that would need to be processed would become economically impractical in much less than 30 years. Exotic metals: The nuclear containment vessel is made of a variety of exotic rare metals that control and contain the nuclear reaction: hafnium as a neutron absorber, beryllium as a neutron reflector, zirconium for cladding, and niobium to alloy steel and make it last 40-60 years against neutron embrittlement. Extracting these metals raises issues involving cost, sustainability, and environmental impact. In addition, these metals have many competing industrial uses; for example, hafnium is used in microchips and beryllium by the semiconductor industry. If a nuclear reactor is built every day, the global supply of these exotic metals needed to build nuclear containment vessels would quickly run down and create a mineral resource crisis. This is a new argument that Abbott puts on the table, which places resource limits on all future-generation nuclear reactors, whether they are fueled by thorium or uranium. As Abbott notes, many of these same problems would plague fusion reactors in addition to fission reactors, even though commercial fusion is still likely a long way off.

#### Loan guarantees prop up a failing industry and result in rampant taxation and economic distortion

Nayak & Taylor 3 Navin Nayak is an environmental advocate with U.S. Public Interest Research Group. Jerry Taylor is director of natural resource studies at the Cato Institute.,“No Corporate Welfare for Nuclear Power,” June 21, http://www.cato.org/pub\_display.php?pub\_id=3134

The most egregious proposal in the energy bill has the federal government providing loan guarantees covering 50 percent of the cost of building 8,400 Megawatts of new nuclear power, the equivalent of six or seven new power plants. The Congressional Research Service estimated that these loan guarantees alone would cost taxpayers $14 to $16 billion. The Congressional Budget Office believes "the risk of default on such a loan guarantee to be very high -- well above 50 percent. The key factor accounting for the risk is that we expect that the plant would be uneconomic to operate because of its high construction costs, relative to other electricity generation sources." But that's not all. The bill also authorizes the federal government to enter into power purchase agreements wherein the federal government would buy back power from the newly built plants -- potentially at above market rates..

## 1NR

#### SMR’s can’t be online for over a decade

Carroll 12 Jeff, JD from the University of Chicago, March/April, "A new generation: Small modular nuclear reactors could have economic and safety benefits, a Chicago study reports", mag.uchicago.edu/science-medicine/new-generation

The new reactors could be built more quickly and efficiently than traditional plants, although pinpointing precise construction timetables is difficult at this stage. Because traditional plants are built so infrequently, laborers must be trained from scratch with each project, rather than moving from job to job. The proposed small modular reactor industry could change that model. Rosner compares it to the plane and ship industries: “Training costs are sharply reduced and the error rate is sharply reduced. People are just better at what they do.”It will take time to get laborers up to speed. The learning curve will make the early units expensive enough, Rosner says, that it may be difficult to find initial investors. “Most likely, it is the federal government that will have to be the first major buyer,” he says. Rosner’s optimistic estimate is that, if both the industry and the government push development, the first small modular reactors could become operational in eight to ten years. Realistically, he added, it could be well after 2020 before the first ones come online.

# Manufacturing

## Squo Solves

#### U.S. manufacturing is resurgent---slew of factors make it sustainable and immune to a double-dip

PWC 9-21 – Pricewaterhouse Coopers, “A Homecoming For U.S. Manufacturing?,” 9/21/12, http://www.manufacturing.net/articles/2012/09/a-homecoming-for-us-manufacturing?et\_cid=2861124&et\_rid=279915960&linkid=http%3a%2f%2fwww.manufacturing.net%2farticles%2f2012%2f09%2fa-homecoming-for-us-manufacturing

NEW YORK― Consensus views on a U.S. manufacturing resurgence have largely centered on rising labor costs in markets such as China as the key driver of re-shoring back to the U.S. However, a new PwC US report, A Homecoming for U.S. Manufacturing?, reveals that while rising labor costs are part of the story, a range of factors—including transportation and energy costs and protecting the supply chain—could drive a sustained manufacturing renaissance in the U.S. beyond any cyclical recovery, potentially improving investment, employment, production output and research & development (R&D).

PwC’s new report identifies seven factors—including transportation and energy costs; currency fluctuations; U.S. market demand; labor costs; U.S. talent; availability of capital; and the tax and regulatory climate—as the primary catalysts influencing manufacturers' decisions to establish production facilities domestically and produce products closer to their major customer bases. PwC's report also notes that localizing production can mitigate supply chain disruptions, which totaled $2.2 billion in financial impact for U.S. industrial products companies in 2011.

“The reviving industrial manufacturing sector is instrumental to U.S. economic recovery,” said Bob McCutcheon, PwC’s U.S. Industrial Products leader. “Beyond the cyclical rebound, however, a host of structural changes is emerging that may lead to the U.S. becoming an important location for basing production and R&D facilities for several industries. In addition to trends in labor costs, other factors include the need to reduce transportation and energy costs; the emergence of the U.S. as a more attractive exporter and the relative attractiveness of the U.S. markets.”

#### Reshoring now means exports are about to surge---creates millions of sustainable manufacturing jobs

Jennifer Booton 9-21, Fox Business Reporter, 9/21/12, “Manufacturing Renaissance? Exports, Reshoring Could Bring 5M Jobs to U.S.,” http://www.foxbusiness.com/economy/2012/09/21/manufacturing-renaissance-exports-reshoring-could-bring-5m-jobs-to-us/#ixzz28HmU2hvR

An expected surge in exports could help create up to five million U.S. jobs by 2020, according to a report released Friday by the Boston Consulting Group.

U.S.-born exports are expected to surge, with domestic manufacturers standing to capture 2% to 7% of Western European and Japanese exports due to lower labor and energy costs, which would translate to as much as $90 billion in additional U.S. exports, BCG research finds.

The uptick is production combined with the jobs needed for reshoring could add up to 2.5 million to 5 million jobs by the end of the decade as manufacturers shift production back to the U.S., according to the study.

That’s up from BCG’s forecast last year, when it predicted the U.S. would add just 2 to 3 million jobs, as major companies have started revealing intentions to shift some jobs to the U.S. over the next few quarters.

“Over the coming years, as European and Japanese companies decide where to locate new capacity, we can expect many more announcements like these,” said Michael Zinser, coauthor of the BCG report who leads the firm’s manufacturing work in the Americas.

While the return of jobs to U.S. shores, also referred to as insourcing and onshoring, is still a relatively new phenomenon, several large manufacturers have recently announced plans to expand or move production to the country.

#### This solves their entire advantage---particularly their multiplier-effect internal link

Seeking Alpha 9-7, “'Made In America' - Does U.S. Manufacturing Renaissance Signal A Long March Back From China? (Part 1),” 9/7/12, http://seekingalpha.com/article/853281-made-in-america-does-u-s-manufacturing-renaissance-signal-a-long-march-back-from-china-part-1

Investment Options from Multiplier effect: U.S. and non-U.S. companies are likely to open manufacturing facilities in the U.S., driving manufacturing job growth, which is particularly positive for the American labor force due to the employment multiplier associated with manufacturing activity. For every manufacturing job created, one to two jobs are created in other industries. According to a supply-and-demand framework for labor, job creation should allow for better wage growth than recently experienced.

Growth in manufacturing production in the U.S. could increase the size of industrial markets, which could lead to positive operating leverage and therefore improved profitability and returns on capital for suppliers. Potential winners include small and midsized U.S.-based suppliers to manufacturing, U.S.-focused industrial distributors and U.S.-focused automation companies.

## Econ Defense

#### Manufacturing not key to the economy

Wessel 12 (David Wessel, economics editor of The Wall Street, “Manufacturing Industry Gained Momentum In 2011,” 1-19-12, <http://www.npr.org/2012/01/19/145437593/are-more-u-s-manufacturing-jobs-being-created>)

WESSEL: Well, that's a good question. So basically, factories have added more than 300,000 jobs in the past two years, and that's pretty good news - certainly better than losing jobs. But it would take two million more jobs to get manufacturing back to where it was in 2007 before the recession. Factories are managing to produce more without hiring a lot more workers, because they're getting more productive; technology, reorganization, making people work harder, making them work smarter. It's all made for a remarkable surge of productivity. Factories get 40 percent more output out of every out of work today, compared to what they got 10 years ago. MONTAGNE: Still though, if sales keep growing, would factories not hire more? Maybe not as many workers as they had before, but more, and couldn't that be one part of the answer, at least, to the jobs problem? WESSEL: Well, it would definitely be one part, but it's a small part. For all the romance about manufacturing, we are no longer a manufacturing economy when it comes to jobs. Only nine percent of the jobs in America today are in manufacturing. It just isn't big enough to put Americans back to work. Even if factory employment doubled, which isn't going to happen, that wouldn't be enough new jobs to put all the 13 million unemployed people back to work. So yes, it's a plus. But no, it's not enough to solve our unemployment problem.

#### No impact

Robert Jervis 11, Professor in the Department of Political Science and School of International and Public Affairs at Columbia University, December 2011, “Force in Our Times,” Survival, Vol. 25, No. 4, p. 403-425

Even if war is still seen as evil, the security community could be dissolved if severe conflicts of interest were to arise. Could the more peaceful world generate new interests that would bring the members of the community into sharp disputes? 45 A zero-sum sense of status would be one example, perhaps linked to a steep rise in nationalism. More likely would be a worsening of the current economic difficulties, which could itself produce greater nationalism, undermine democracy and bring back old-fashioned beggar-my-neighbor economic policies. While these dangers are real, it is hard to believe that the conflicts could be great enough to lead the members of the community to contemplate fighting each other. It is not so much that economic interdependence has proceeded to the point where it could not be reversed – states that were more internally interdependent than anything seen internationally have fought bloody civil wars. Rather it is that even if the more extreme versions of free trade and economic liberalism become discredited, it is hard to see how without building on a preexisting high level of political conflict leaders and mass opinion would come to believe that their countries could prosper by impoverishing or even attacking others. Is it possible that problems will not only become severe, but that people will entertain the thought that they have to be solved by war? While a pessimist could note that this argument does not appear as outlandish as it did before the financial crisis, an optimist could reply (correctly, in my view) that the very fact that we have seen such a sharp economic down-turn without anyone suggesting that force of arms is the solution shows that even if bad times bring about greater economic conflict, it will not make war thinkable.

# Prolif

## Impact D

### Prolif

#### No impact to prolif---every actor has an incentive to overstate the impact

Robert Farley 11, assistant professor at the Patterson School of Diplomacy and International Commerce at the University of Kentucky, 11/16/11, “Over the Horizon: Iran and the Nuclear Paradox,” http://www.worldpoliticsreview.com/articles/10679/over-the-horizon-iran-and-the-nuclear-paradox

But states and policymakers habitually overestimate the impact of nuclear weapons. This happens among both proliferators and anti-proliferators. Would-be proliferators seem to expect that possessing a nuclear weapon will confer “a seat at the table” as well as solve a host of minor and major foreign policy problems. Existing nuclear powers fear that new entrants will act unpredictably, destabilize regions and throw existing diplomatic arrangements into flux. These predictions almost invariably turn out wrong; nuclear weapons consistently fail to undo the existing power relationships of the international system.

The North Korean example is instructive. In spite of the dire warnings about the dangers of a North Korean nuclear weapon, the region has weathered Pyongyang’s nuclear proliferation in altogether sound fashion. Though some might argue that nukes have “enabled” North Korea to engage in a variety of bad behaviors, that was already the case prior to its nuclear test. The crucial deterrent to U.S. or South Korean action continues to be North Korea’s conventional capabilities, as well as the incalculable costs of governing North Korea after a war. Moreover, despite the usual dire predictions of nonproliferation professionals, the North Korean nuclear program has yet to inspire Tokyo or Seoul to follow suit. The DPRK’s program represents a tremendous waste of resources and human capital for a poor state, and it may prove a problem if North Korea endures a messy collapse. Thus far, however, the effects of the arsenal have been minimal.

Israel represents another case in which the benefits of nuclear weapons remain unclear. Although Israel adopted a policy of ambiguity about its nuclear program, most in the region understood that Israel possessed nuclear weapons by the late-1960s. These weapons did not deter Syria or Egypt from launching a large-scale conventional assault in 1973, however. Nor did they help the Israeli Defense Force compel acquiescence in Lebanon in 1982 or 2006. Nuclear weapons have not resolved the Palestinian question, and when it came to removing the Saddam Hussein regime in Iraq, Israel relied not on its nuclear arsenal but on the United States to do so -- through conventional means -- in 2003. Israeli nukes have thus far failed to intimidate the Iranians into freezing their nuclear program. Moreover, Israel has pursued a defense policy designed around the goal of maintaining superiority at every level of military escalation, from asymmetrical anti-terror efforts to high-intensity conventional combat. Thus, it is unclear whether the nuclear program has even saved Israel any money.

The problem with nukes is that there are strong material and normative pressures against their use, not least because states that use nukes risk incurring nuclear retaliation. Part of the appeal of nuclear weapons is their bluntness, but for foreign policy objectives requiring a scalpel rather than a sledgehammer, they are useless. As a result, states with nuclear neighbors quickly find that they can engage in all manner of harassment and escalation without risking nuclear retaliation. The weapons themselves are often more expensive than the foreign policy objectives that they would be used to attain. Moreover, normative pressures do matter. Even “outlaw” nations recognize that the world views the use of nuclear -- not to mention chemical or biological -- weapons differently than other expressions of force. And almost without exception, even outlaw nations require the goodwill of at least some segments of the international community.

Given all this, it is not at all surprising that many countries eschew nuclear programs, even when they could easily attain nuclear status. Setting aside the legal problems, nuclear programs tend to be expensive, and they provide relatively little in terms of foreign policy return on investment. Brazil, for example, does not need nuclear weapons to exercise influence in Latin America or deter its rivals. Turkey, like Germany, Japan and South Korea, decided a long time ago that the nuclear “problem” could be solved most efficiently through alignment with an existing nuclear power.

Why do policymakers, analysts and journalists so consistently overrate the importance of nuclear weapons? The answer is that everyone has a strong incentive to lie about their importance. The Iranians will lie to the world about the extent of their program and to their people about the fruits of going nuclear. The various U.S. client states in the region will lie to Washington about how terrified they are of a nuclear Iran, warning of the need for “strategic re-evaluation,” while also using the Iranian menace as an excuse for brutality against their own populations. Nonproliferation advocates will lie about the terrors of unrestrained proliferation because they do not want anyone to shift focus to the manageability of a post-nuclear Iran. The United States will lie to everyone in order to reassure its clients and maintain the cohesion of the anti-Iran block.

None of these lies are particularly dishonorable; they represent the normal course of diplomacy. But they are lies nevertheless, and serious analysts of foreign policy and international relations need to be wary of them.

Nonproliferation is a good idea, if only because states should not waste tremendous resources on weapons of limited utility. Nuclear weapons also represent a genuine risk of accidents, especially for states that have not yet developed appropriately robust security precautions. Instability and collapse in nuclear states has been harrowing in the past and will undoubtedly be harrowing in the future. All of these threats should be taken seriously by policymakers. Unfortunately, as long as deception remains the rule in the practice of nuclear diplomacy, exaggerated alarmism will substitute for a realistic appraisal of the policy landscape.

#### Breakout timeframe is a decade at best

The Economist 12 – “The Dream that Failed,” 3-10-12, http://www.economist.com/node/21549098/print

Nuclear power is not going to disappear. Germany, which in 2011 produced 5% of the world's nuclear electricity, is abandoning it, as are some smaller countries. In Japan, and perhaps also in France, it looks likely to lose ground. But there will always be countries that find the technology attractive enough to make them willing to rearrange energy markets in its favour. If they have few indigenous energy resources, they may value, as Japan has done, the security offered by plants running on fuel that is cheap and easily stockpiled. Countries with existing nuclear capacity that do not share Germany's deep nuclear unease or its enthusiasm for renewables may choose to buy new reactors to replace old ones, as Britain is seeking to do, to help with carbon emissions. Countries committed to proliferation, or at least interested in keeping that option open, will invest in nuclear, as may countries that find themselves with cash to spare and a wish to join what still looks like a technological premier league. Besides, nuclear plants are long-lived things. Today's reactors were mostly designed for a 40-year life, but many of them are being allowed to increase it to 60. New reactor designs aim for a span of 60 years that might be extended to 80. Given that it takes a decade or so to go from deciding to build a reactor to feeding the resulting electricity into a grid, reactors being planned now may still be working in the early 22nd century.

#### Tech diffusion’s already happened, but prolif is glacially slow

Jacques E.C. Hymans 12, Assistant Professor in the School of International Relations at the University of Southern California, May/June 2012, “Botching the Bomb,” Foreign Affairs, Vol. 91, No. 3

"TODAY, ALMOST any industrialized country can produce a nuclear weapon in four to five years," a former chief of Israeli military intelligence recently wrote in The New York Times, echoing a widely held belief. Indeed, the more nuclear technology and know-how have diffused around the world, the more the timeline for building a bomb should have shrunk. But in fact, rather than speeding up over the past four decades, proliferation has gone into slow motion.

Seven countries launched dedicated nuclear weapons projects before 1970, and all seven succeeded in relatively short order. By contrast, of the ten countries that have launched dedicated nuclear weapons projects since 1970, only three have achieved a bomb. And only one of the six states that failed -- Iraq -- had made much progress toward its ultimate goal by the time it gave up trying. (The jury is still out on Iran's program.) What is more, even the successful projects of recent decades have needed a long time to achieve their ends. The average timeline to the bomb for successful projects launched before 1970 was about seven years; the average timeline to the bomb for successful projects launched after 1970 has been about 17 years.

International security experts have been unable to convincingly explain this remarkable trend. The first and most credible conventional explanation is that the Nuclear Nonproliferation Treaty (NPT) has prevented a cascade of new nuclear weapons states by creating a system of export controls, technology safeguards, and on-site inspections of nuclear facilities. The NPT regime has certainly closed off the most straightforward pathways to the bomb. However, the NPT became a formidable obstacle to would-be nuclear states only in the 1990s, when its export-control lists were expanded and Western states finally became serious about enforcing them and when international inspectors started acting less like tourists and more like detectives. Yet the proliferation slowdown started at least 20 years before the system was solidified. So the NPT, useful though it may be, cannot alone account for this phenomenon.

**Deterrence breakdowns don’t cause full-scale nuclear war – states will limit damage at every stage of the conflict**

Kenneth **Waltz**, Emeritus Professor of Political Science at UC Berkeley and Adjunct Senior Research Scholar at Columbia University, **2003**, The Spread of Nuclear Weapons: A Debate Renewed, p. 34-35

States are deterred by the prospect of suffering severe damage and by their inability to do much to limit it. Deterrence works because nuclear weapons enable one state to punish another state severely without first defeating it. "Victory," in Thomas Schelling's words, "is no longer a prerequisite for hurting the enemy." 37 Countries armed only with conventional weapons can hope that their military forces will be able to limit the damage an attacker can do. Among countries armed with strategic nuclear forces, the hope of avoiding heavy damage depends mainly on the attacker's restraint and little on one's own efforts. Those who compared expected deaths through strategic exchanges of nuclear warheads with casualties suffered by the Soviet Union in World War II overlooked the fundamental difference between conventional and nuclear worlds. 38

Deterrence rests on what countries can do to each other with strategic nuclear weapons. From this statement, one can **easily leap to the wrong conclusion**: that deterrent strategies, if they have to be carried through, will produce a catastrophe. That countries are able to annihilate each other means neither that deterrence depends on their threatening to do so nor that they will necessarily do so if deterrence fails. Because countries heavily armed with strategic nuclear weapons can carry war to its ultimate intensity, the control of force becomes the primary objective. If deterrence fails, leaders will **have the strongest incentives to keep force under control and limit damage** rather than launching genocidal attacks. If the Soviet Union had attacked Western Europe, NATO's objectives would have been to halt the attack and end the war. The United States had the ability to place thousands of warheads precisely on targets in the Soviet Union. Surely we would have struck military targets before striking industrial targets and industrial targets before striking cities. The intent to hit military targets first was sometimes confused with a war-fighting strategy, but it was not one. It would not have significantly reduced the Soviet Union's ability to hurt us. Whatever American military leaders thought, our strategy rested on the threat to punish. The threat, if it failed to deter, would have been followed not by spasms of violence but by punishment administered in ways that conveyed threats of more to come.

A war between the United States and the Soviet Union that got out of control would have been catastrophic. If they had set out to destroy each other, they would have greatly reduced the world's store of developed resources while killing millions outside of their own borders through fallout. Even while destroying themselves, states with few weapons would do less damage to others. As ever, the biggest international dangers come from the strongest states. Fearing the world's destruction, one may prefer a world of conventional great powers having a higher probability of fighting less- destructive wars to a world of nuclear great powers having a lower probability of fighting more-destructive wars. But that choice effectively disappeared with the production of atomic bombs by the United States during World War II.

### Nuclear Terrorism

#### No terror impact

John Mueller and Mark G. Stewart 12, Senior Research Scientist at the Mershon Center for International Security Studies and Adjunct Professor in the Department of Political Science, both at Ohio State University, and Senior Fellow at the Cato Institute AND Australian Research Council Professorial Fellow and Professor and Director at the Centre for Infrastructure Performance and Reliability at the University of Newcastle, "The Terrorism Delusion," Summer, International Security, Vol. 37, No. 1, politicalscience.osu.edu/faculty/jmueller//absisfin.pdf

In 2009, the U.S. Department of Homeland Security (DHS) issued a lengthy report on protecting the homeland. Key to achieving such an objective should be a careful assessment of the character, capacities, and desires of potential terrorists targeting that homeland. Although the report contains a section dealing with what its authors call “the nature of the terrorist adversary,” the section devotes only two sentences to assessing that nature: “The number and high profile of international and domestic terrorist attacks and disrupted plots during the last two decades underscore the determination and persistence of terrorist organizations. Terrorists have proven to be relentless, patient, opportunistic, and flexible, learning from experience and modifying tactics and targets to exploit perceived vulnerabilities and avoid observed strengths.”8¶ This description may apply to some terrorists somewhere, including at least a few of those involved in the September 11 attacks. Yet, it scarcely describes the vast majority of those individuals picked up on terrorism charges in the United States since those attacks. The inability of the DHS to consider this fact even parenthetically in its fleeting discussion is not only amazing but perhaps delusional in its single-minded preoccupation with the extreme.¶ In sharp contrast, the authors of the case studies, with remarkably few exceptions, describe their subjects with such words as incompetent, ineffective, unintelligent, idiotic, ignorant, inadequate, unorganized, misguided, muddled, amateurish, dopey, unrealistic, moronic, irrational, and foolish.9 And in nearly all of the cases where an operative from the police or from the Federal Bureau of Investigation was at work (almost half of the total), the most appropriate descriptor would be “gullible.”¶ In all, as Shikha Dalmia has put it, would-be terrorists need to be “radicalized enough to die for their cause; Westernized enough to move around without raising red flags; ingenious enough to exploit loopholes in the security apparatus; meticulous enough to attend to the myriad logistical details that could torpedo the operation; self-sufficient enough to make all the preparations without enlisting outsiders who might give them away; disciplined enough to maintain complete secrecy; and—above all—psychologically tough enough to keep functioning at a high level without cracking in the face of their own impending death.”10 The case studies examined in this article certainly do not abound with people with such characteristics. ¶ In the eleven years since the September 11 attacks, no terrorist has been able to detonate even a primitive bomb in the United States, and except for the four explosions in the London transportation system in 2005, neither has any in the United Kingdom. Indeed, the only method by which Islamist terrorists have managed to kill anyone in the United States since September 11 has been with gunfire—inflicting a total of perhaps sixteen deaths over the period (cases 4, 26, 32).11 This limited capacity is impressive because, at one time, small-scale terrorists in the United States were quite successful in setting off bombs. Noting that the scale of the September 11 attacks has “tended to obliterate America’s memory of pre-9/11 terrorism,” Brian Jenkins reminds us (and we clearly do need reminding) that the 1970s witnessed sixty to seventy terrorist incidents, mostly bombings, on U.S. soil every year.12¶ The situation seems scarcely different in Europe and other Western locales. Michael Kenney, who has interviewed dozens of government officials and intelligence agents and analyzed court documents, has found that, in sharp contrast with the boilerplate characterizations favored by the DHS and with the imperatives listed by Dalmia, Islamist militants in those locations are operationally unsophisticated, short on know-how, prone to making mistakes, poor at planning, and limited in their capacity to learn.13 Another study documents the difficulties of network coordination that continually threaten the terrorists’ operational unity, trust, cohesion, and ability to act collectively.14¶ In addition, although some of the plotters in the cases targeting the United States harbored visions of toppling large buildings, destroying airports, setting off dirty bombs, or bringing down the Brooklyn Bridge (cases 2, 8, 12, 19, 23, 30, 42), all were nothing more than wild fantasies, far beyond the plotters’ capacities however much they may have been encouraged in some instances by FBI operatives. Indeed, in many of the cases, target selection is effectively a random process, lacking guile and careful planning. Often, it seems, targets have been chosen almost capriciously and simply for their convenience. For example, a would-be bomber targeted a mall in Rockford, Illinois, because it was nearby (case 21). Terrorist plotters in Los Angeles in 2005 drew up a list of targets that were all within a 20-mile radius of their shared apartment, some of which did not even exist (case 15). In Norway, a neo-Nazi terrorist on his way to bomb a synagogue took a tram going the wrong way and dynamited a mosque instead.15

#### No impact---super unlikely

Schneidmiller 9(Chris, Experts Debate Threat of Nuclear, Biological Terrorism, 13 January 2009, http://www.globalsecuritynewswire.org/gsn/nw\_20090113\_7105.php)

There is an "almost vanishinglysmall" likelihood that terrorists would ever be able to acquire and detonate a nuclear weapon, one expert said here yesterday (see GSN, Dec. 2, 2008). In even the most likely scenario of nuclear terrorism, there are 20 barriers between extremists and a successful nuclear strike on a major city, said John Mueller, a political science professor at Ohio State University. The process itself is seemingly straightforward but exceedingly difficult -- buy or steal highly enriched uranium, manufacture a weapon, take the bomb to the target site and blow it up. Meanwhile, variables strewn across the path to an attack would increase the complexity of the effort, Mueller argued. Terrorists would have to bribe officials in a state nuclear program to acquire the material, while avoiding a sting by authorities or a scam by the sellers. The material itself could also turn out to be bad. "Once the purloined material is purloined, [police are] going to be chasing after you. They are also going to put on a high reward, extremely high reward, on getting the weapon back or getting the fissile material back," Mueller said during a panel discussion at a two-day Cato Institute conference on counterterrorism issues facing the incoming Obama administration. Smuggling the material out of a country would mean relying on criminals who "are very good at extortion" and might have to be killed to avoid a double-cross, Mueller said. The terrorists would then have to find scientists and engineers willing to give up their normal lives to manufacture a bomb, which would require an expensive and sophisticated machine shop. Finally, further technological expertise would be needed to sneak the weapon across national borders to its destination point and conduct a successful detonation, Mueller said. Every obstacle is "difficult but not impossible" to overcome, Mueller said, putting the chance of success at no less than one in three for each. The likelihood of successfully passing through each obstacle, in sequence, would be roughly one in 3 1/2 billion, he said, but for argument's sake dropped it to 3 1/2 million. "It's a total gamble. This is a very expensive and difficult thing to do," said Mueller, who addresses the issue at greater length in an upcoming book, *Atomic Obsession*. "So unlike buying a ticket to the lottery ... you're basically putting everything, including your life, at stake for a gamble that's maybe one in 3 1/2 million or 3 1/2 billion." Other scenarios are even less probable, Mueller said. A nuclear-armed state is "exceedingly unlikely" to hand a weapon to a terrorist group, he argued: "States just simply won't give it to somebody they can't control." Terrorists are also not likely to be able to steal a whole weapon, Mueller asserted, dismissing the idea of "loose nukes." Even Pakistan, which today is perhaps the nation of greatest concern regarding nuclear security, keeps its bombs in two segments that are stored at different locations, he said (see *GSN*, Jan. 12). Fear of an "extremely improbable event" such as nuclear terrorism produces support for a wide range of homeland security activities, Mueller said. He argued that there has been a major and costly overreaction to the terrorism threat -- noting that the Sept. 11 attacks helped to precipitate the invasion of Iraq, which has led to far more deaths than the original event. Panel moderator Benjamin Friedman, a research fellow at the Cato Institute, said academic and governmental discussions of acts of nuclear or biological terrorism have tended to focus on "worst-case assumptions about terrorists' ability to use these weapons to kill us." There is need for consideration for what is probable rather than simply what is possible, he said. Friedman took issue with the finding late last year of an experts' report that an act of WMD terrorism would "more likely than not" occur in the next half decade unless the international community takes greater action. "I would say that the report, if you read it, actually offers no analysis to justify that claim**,** which seems to have been made to change policy by generating alarm in headlines." One panel speaker offered a partial rebuttal to Mueller's presentation. Jim Walsh, principal research scientist for the Security Studies Program at the Massachusetts Institute of Technology, said he agreed that nations would almost certainly not give a nuclear weapon to a nonstate group, that most terrorist organizations have no interest in seeking out the bomb, and that it would be difficult to build a weapon or use one that has been stolen.

#### Their impact evidence assumes retaliation --- no scenario

Ruwe 8 (Daniel, 5/27, http://danielruwe.blogspot.com/2008/05/barack-obama-gaffe-machine.html)

Another revealing Obama quote is his answer to a debate question regarding a hypothetical terrorist attack on an American city. (Remember when there was a presidential debate about every two weeks? That seems so long ago). Obama’s answer: “the first thing we’d have to do is make sure we’ve got an effective emergency response, something that this administration failed to do when we had a hurricane in New Orleans. And I think we have to review how we operate in the event of not only a natural disaster but also a terrorist attack. The second thing is to make sure that we’ve got good intelligence. . . . But what we can’t do is then alienate the world community based on faulty intelligence, based on bluster and bombast.” If that answer still is Obama’s position (Obama’s views are maddeningly hard to pin down), then he clearly has not the vaguest idea of how to respond to a terrorist attack. The emergency response required for a terrorist attack is completely different than that required for a natural disaster—for example, natural disasters are handled first by state and local governments, while terrorist attacks fall squarely into the federal government’s bailiwick. In addition, terrorist attacks are preventable. Also, Obama might want to consider retaliating against those who attacked us, a concept missing from his reply. Lack of retaliation against America’s enemies seems to be a premise of his foreign policy—if we talk to them, they won’t attack us. He seems to base his opposition to the Iraq War not so much on the strategic reasons behind it, but because he seems to think that war in general is almost always unacceptable. This quote is revealing because he rarely enunciates this idea so openly.

#### No missing nukes – they would have been used already

Associated Press 12 – Vladimir Isachenkov, reporter for the Associated Press, January 9, 2012, "How Threat of Loose Soviet Nukes Was Avoided," http://www.military.com/news/article/how-threat-of-loose-soviet-nukes-was-avoided.html

There have been gnawing fears that a few Soviet nukes still might have gone missing, but experts with inside knowledge say that if it were true, the world would already know. "If somebody or a terrorist group got hold of a nuclear weapon, they would probably use it as quickly as possible," said Steven Pifer, who served as U.S. ambassador to Ukraine, held other senior State Department posts and is now director of the Brookings Institute's Arms Control Initiative. "So the fact that you haven't seen a nuclear detonation ... reflects the fact that the nuclear weapons have been maintained in a secure way."

#### Loose nukes are empirically denied and have safeguards

Chapman 5-17 – Steve Chapman, writer for the Chicago Tribune, May 17, 2012, "The Implausibility of Nuclear Terrorism," http://reason.com/archives/2012/05/17/the-implausibility-of-nuclear-terrorism

The events required to make that happen comprise a multitude of Herculean tasks. First, a terrorist group has to get a bomb or fissile material, perhaps from Russia's inventory of decommissioned warheads. If that were easy, one would have already gone missing. Besides, those devices are probably no longer a danger, since weapons that are not scrupulously maintained (as those have not been) quickly become what one expert calls **"radioactive scrap metal."** If terrorists were able to steal a Pakistani bomb, they would still have to defeat the **arming codes and other safeguards** designed to prevent unauthorized use. As for Iran, **no nuclear state has ever given a bomb to an ally**—for reasons even the Iranians can grasp.

### Meltdowns

#### No impact to nuclear meltdowns

Drum 11 Kevin, political blogger for Mother Jones, "Nukes and the Free Market", March 14, www.motherjones.com/kevin-drum/2011/03/nukes-and-free-market

We’re currently told that the death toll in Japan will be at least 10,000 people of whom approximately zero seem to have perished in nuclear accidents. What happens when a tsunami hits an offshore drilling platform or a natural gas pipeline? What happens to a coal mine in an earthquake? How much environmental damage is playing out in Japan right now because of gasoline from cars pushed around? The main lesson is “try not to put critical infrastructure near a fault line” but Japan is an earthquakey country, so what are they really supposed to do about this?¶ This is a good point: energy sources of all kind cause problems. Sometimes the problems create screaming headlines (nuke meltdowns, offshore oil explosions, mining disasters) and sometimes they don't (increased particulate pollution, global warming, devastation of salmon runs). But the dangers are there for virtually every type of energy production.¶ Still, it's worth pointing out that the problem with nuclear power isn't so much its immediate capacity to kill people. As Matt points out, no one has died in Japan from the partial meltdowns at its damaged nuclear plants, and it's unlikely anyone ever will. The control rods are in place, and even in the worst case the containment vessels will almost certainly restrict the worst damage.

#### No impact to the environment and no solvency

Holly Doremus 2k Professor of Law at UC Davis, "The Rhetoric and Reality of Nature Protection: Toward a New Discourse," Winter 2000 Washington & Lee Law Review 57 Wash & Lee L. Rev. 11, lexis

Reluctant to concede such losses, tellers of the ecological horror story highlight how close a catastrophe might be, and how little we know about what actions might trigger one. But the apocalyptic vision is **less credible today than it seemed in the 1970s.** Although it is clear that the earth is experiencing a mass wave of extinctions, n213 the **complete elimination of life on earth seems unlikely.** n214 **Life is remarkably robust**. **Nor is human extinction probable** any time soon. Homo sapiens is **adaptable to nearly any environment**. Even if the world of the future includes far fewer species, it likely will hold people. n215 One response to this credibility problem tones the story down a bit, arguing not that humans will go extinct but that ecological disruption will bring economies, and consequently civilizations, to their knees. n216 But this too may be **overstating the case**. Most ecosystem functions are **performed by multiple species**. This **functional redundancy** means that **a high proportion of species can be lost without precipitating a collapse**. n217 Another response drops the horrific ending and returns to a more measured discourse of the many material benefits nature provides humanity. Even these more plausible tales, though, suffer from an important limitation. They call for nature protection only at a high level of generality. For example, human-induced increases in atmospheric carbon dioxide levels may cause rapid changes in global temperatures in the near future, with drastic consequences for sea levels, weather patterns, and ecosystem services. n218 Similarly, the loss of large numbers of species undoubtedly reduces the genetic library from which we might in the future draw useful resources. n219 But it is difficult to translate these insights into convincing arguments against any one of the small local decisions that contribute to the problems of global warming or biodiversity loss. n220 It is easy to argue that **the** material **impact of any individual decision to increase** carbon **emissions slightly or to destroy a small amount of habitat will be small.** It is difficult to identify the specific straw that will break the camel's back. Furthermore, **no unilateral action at the local or even national level can solve these global problems**. Local decisionmakers may feel paralyzed by the scope of the problems, or may conclude that any sacrifices they might make will go unrewarded if others do not restrain their actions. In sum, at the local level at which most decisions affecting nature are made, the material discourse provides little reason to save nature. Short of the ultimate catastrophe, the material benefits of destructive decisions frequently will exceed their identifiable material costs. n221

#### Chernobyl proves meltdowns don’t cause lasting damage

Bosselman 7 (Professor of Law Emeritus, Chicago-Kent College of Law. Fred, “THE NEW POWER GENERATION: ENVIRONMENTAL LAW AND ELECTRICITY INNOVATION: COLLOQUIUM ARTICLE: THE ECOLOGICAL ADVANTAGES OF NUCLEAR POWER,” 15 N.Y.U. Envtl. L.J. 1, 2007)

C. "But What About Chernobyl?" In 1986, an explosion at the Chernobyl nuclear power plant in the Ukraine caused the release of large amounts of radiation into the atmosphere. [247](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n247) Initially, the Soviet government released little information about the explosion and tried to play down its seriousness, but this secrecy caused great nervousness throughout Europe, and fed the public's fears of nuclear power all over the  [\*46]  world. [248](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n248) Now a **comprehensive analysis** of the event and its aftermath has been made: In 2005, a consortium of United Nations agencies called the Chernobyl Forum released its analysis of the long-term effects of the Chernobyl explosion. [249](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n249) The U.N. agencies' study found that the explosion caused fewer deaths than had been expected. [250](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n250) Although the Chernobyl reactor was poorly designed and badly operated [251](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n251) and lacked the basic safety protections found outside the Soviet Union, [252](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n252) fewer than seventy deaths so far have been attributed to the explosion, mostly plant employees and firefighters who suffered acute radiation sickness. [253](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n253) The Chernobyl reactor, like many Soviet reactors, was in the open rather than in an American type of pressurizable containment structure, which would have prevented the release of radiation to the environment if a similar accident had occurred. [254](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n254)  [\*47]  Perhaps the most surprising finding of the U.N. agencies' study was that "**the ecosystems around the Chernobyl site are now flourishing.** The [Chernobyl exclusion zone] has become a wildlife sanctuary, and it looks like the nature park it has become." [255](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n255) Jeffrey McNeely, the chief scientist of the World Conservation Union, has made similar observations: Chernobyl has now become the world's first radioactive nature reserve... . 200 wolves are now living in the nature reserve, which has also begun to support populations of reindeer, lynx and European bison, species that previously were not found in the region. While the impact on humans was strongly negative, the wildlife is adapting and even thriving on the site of one of the 20th century's worst environmental disasters. [256](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n256) Mary Mycio, the Kiev correspondent for the Los Angeles Times, has written a fascinating book based on her many visits to the exclusion zone and interviews with people in the area. [257](http://www.lexis.com/research/retrieve?_m=4a9f74e9d68358dde5b1da7c76fcc08d&docnum=49&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlz-zSkAB&_md5=b940f69f179ebb657dc94d1baf8c0fbd#n257) She notes that the fear that radiation would produce permanent deformities in animal species has not been borne out after twenty years; the population and diversity of animals in even some of the most heavily radiated parts of the exclusion zone is similar to comparable places that are less radioactive.

#### Net effects of meltdowns are ecologically positive

Lynas 11—Visiting Research Associate at Oxford University’s School of Geography and the Environment. (Mark, How a nuclear disaster can be good for ecology, [www.marklynas.org/2011/06/how-a-nuclear-disaster-can-be-good-for-ecology/](http://www.marklynas.org/2011/06/how-a-nuclear-disaster-can-be-good-for-ecology/))

It is an article of faith for most greens that nuclear power is an ‘environmental’ issue. Ergo, nuclear power is bad for ‘the environment’ and should be replaced with ‘clean, renewable power’ like windmills and solar panels. This is in effect what the German government has agreed to do, under pressure from its resurgent Green Party, in phasing out nuclear by 2022. (Ignore for the moment the fact that in reality this will almost certainly lead to a vast increase in fossil fuelled carbon emissions.)¶ The truth, insofar as ecological science can establish it, is rather different. Here is what Robert Baker and Ronald Chesser, two ecologists studying biodiversity around Chernobyl, wrote more than ten years ago in the journal Environmental Toxicology and Chemistry:¶ Mention of the Chornobyl nuclear disaster usually brings thoughts of death, destruction, cancer, massive economic loss, and other negative images. Clearly, the economic impacts have been devastating for the Ukrainian economy, and the harmful effects such as elevated cancer rates in humans and the killing of pine trees in the Red Forest are real. However, the sum effect for the flora and fauna in the highly radioactive, restricted zone has been overwhelmingly positive in favor of biodiversity and abundance of individuals. Our 12 expeditions to the most radioactive areas of these zones reveal that animal life is abundant. Parts of the 10-km exclusion zone around Reactor 4 are strikingly, yet deceptively, beautiful. Only the clicks and whistles of our electronic equipment indicated that the habitat was contaminated with radioactivity.¶ Of course, this is not to say that radiation in and of itself somehow benefits wildlife. What brings the big boon to biodiversity is the removal of humans from the equation. Baker and Chesser reported frequent sightings of moose, deer, foxes, wild boar and river otters inside the 30-kilometre Chernobyl exclusion zone – whereas in the still-cultivated area outside the zone, the only wildlife they saw was a single rabbit. The researchers concluded:¶ … the benefit of excluding humans from this highly contaminated ecosystem appears to outweigh significantly any negative cost associated with Chornobyl radiation¶ and that¶ … typical human activity (industrialization, farming, cattle raising, collection of firewood, hunting, etc.) is more devastating to biodiversity and abundance of local flora and fauna than is the worst nuclear power plant disaster¶ Why this ecological knowledge has failed to penetrate amongst self-professed ‘environmentalists’ is a mystery. In the popular imagination the area around Chernobyl is a blighted wasteland, a mental picture kept alive by the apocalyptic (and superlatively unscientific) myths put about by the likes of Greenpeace. Take the recent piece by the Observer’s Robin McKie, who – as far as I can tell – visited Chernobyl on a stage-managed Greenpeace press tour and penned an obedient piece titled ‘Chernobyl 25 years on: A poisoned landscape‘. Employing the traditional scary imagery, he writes:¶ The Ukrainian steppe is still frost-burned and the trees leafless at this time of year. There are no buds on branches and little hint of greenery, a combination that only enhances the eerie desolation inside the 30km exclusion zone around the reactor…¶ But the clue to why McKie saw a ‘poisoned landscape’ lies in the first sentence: he went in winter. When I visited last summer, I saw a very different scene – the vibrant profusion of vegetation was extraordinary, as was the noise of bird calls and buzzing insects. It seemed like life was exploding everywhere.¶ So on, inevitably, to Fukushima. Once again, this is not an ‘environmental’ disaster in any sense in which the word is commonly understood. There will be no discernible ecological impacts, despite the substantial amounts of radiation that have been released through the triple meltdown and containment failures seen immediately after the tsunami. Unlike with Chernobyl the contamination of surrounding areas is not serious enough to require the permanent evacuation of its human population, so the benefits to wild plants and animals will be minimal. At sea – where most of the radiation went – the impact could well be positive if it reduces the fishing pressure for which Japan is notorious in terms of its impact on marine ecology.

#### 

## IAEA

#### Plan causes massive IAEA overstretch---only SMRs link---turns prolif

Dr. Edwin Lyman 11, Senior Scientist, Global Security Program, Union of Concerned Scientists, July 14, 2011, Testimony Before the Energy and Water Development Subcommittee, Committee on Appropriations, U.S. Senate, “An Examination of the Safety and Economics of Light Water Small Modular Reactors,” http://www.ucsusa.org/assets/documents/nuclear\_power/lyman-appropriations-subcom-7-14-11.pdf

The distributed deployment of small reactors would also put great strains on existing licensing and inspection resources. Nuclear reactors are qualitatively different from other types of generating facilities, not least because they require a much more extensive safety and security inspection regime. Similarly, deployment of individual small reactors at widely distributed and remote sites around the world would strain the resources of the International Atomic Energy Agency (IAEA) and its ability to adequately safeguard reactors to guard against proliferation, since IAEA inspectors would need to visit many more locations per installed megawatt around the world. Maintaining robust oversight over vast networks of SMRs around the world would be difficult, if feasible at all.

## Warming DA

### 1NC

#### Global expansion of enrichment capability is the only way nuclear power can solve climate change---the plan reverses that

Sharon Squassoni 9, Director and Senior Fellow of the Proliferation Prevention Program at CSIS, 3/25/9, “Nuclear Power: How Much More?,” http://www.npolicy.org/article.php?aid=176&rid=2

The amount of nuclear capacity required to make a signification contribution to global climate change mitigation is so large that it would inevitably be widely distributed across the globe. Such a distribution would have particular implications for nuclear proliferation. However, projected distributions of nuclear energy out to 2050 are extremely speculative. The industry itself does not engage in such projections, and countries that set nuclear energy production goals have a history of widely missing long-range targets, such as China and India. The discussion below considers a hypothetical distribution of nuclear energy for 2050, based on the 2003 MIT Study. [12]

Scenario III, shown in Figure 7, uses the “High 2050” scenario in Appendix 2 (“Global Electricity Demand and the Nuclear Power Growth Scenario”) of the 2003 MIT study, The Future of Nuclear Power. Although this is not a distribution designed to achieve optimal CO2 reductions, it is expansion at a level significant enough (1500 GWe) to have an effect on CO2 emissions. This would mean a fourfold increase from current reactor capacity.

The MIT study used an underlying assumption that the developed countries would continue with a modest annual increase in per capita electricity use and the developing countries would move to the 4000 kWh per person per year benchmark if at all feasible (the 4000 kWh benchmark being the dividing line between developed and advanced countries). Electricity demand was then pegged to estimated population growth. Finally, it was assumed that nuclear energy would retain or increase its current share of electricity generation. The least-off developing countries were assumed in the MIT study not to have the wherewithal for nuclear energy. It should be noted that MIT’s 2050 projection was “an attempt to understand what the distribution of nuclear power deployment would be if robust growth were realized, perhaps driven by a broad commitment to reducing greenhouse gas emissions and a concurrent resolution of the various challenges confronting nuclear power’s acceptance in various countries.” A few countries that the MIT High 2050 case included but are not included here are countries that currently have laws restricting nuclear energy, such as Austria.

Implications for Uranium Enrichment

A fourfold expansion of nuclear energy would entail significant new production requirements for uranium enrichment as shown in Figure 8 and possibly, reprocessing. The MIT study anticipated that 54 states would have reactor capacities that could possibly justify indigenous uranium enrichment. If a capability of 10 GWe is considered the threshold at which indigenous enrichment becomes cost-effective, more than 15 additional states could find it advantageous to engage in uranium enrichment.

Figure 9 depicts what the geographic distribution of enrichment capacity might look like, based on the development of 10 GWe or more of reactor capacity. Of course, some states – such as Australia or Kazakhstan – might opt to enrich uranium regardless of domestic nuclear energy capacity, choosing to add value to their own uranium exports. In addition, states may choose to take the path of the UAE, which has formally renounced domestic enrichment and reprocessing in its domestic law, despite aspiring to reach 10 GWe of capacity. Ultimately, these decisions lie very much in the political realm, and can be reversed.

#### Extinction

Flournoy 12 – Citing Feng Hsu, PhdD NASA Scientist @ the Goddard Space Flight Center, Don FLournoy, PhD and MA from UT, former Dean of the University College @ Ohio University, former Associate Dean at SUNY and Case Institute of Technology, Former Manager for Unviersity/Industry Experiments for the NASA ACTS Satellite, currently Professor of Telecommunications @ Scripps College of Communications, Ohio University, “Solar Power Satellites,” January 2012, Springer Briefs in Space Development, p. 10-11

In the Online Journal of Space Communication , Dr. Feng Hsu, a  NASA scientist at Goddard Space Flight Center, a research center in the forefront of science of space and Earth, writes, “The evidence of global warming is alarming,” noting the potential for a catastrophic planetary climate change is real and troubling (Hsu 2010 ) . Hsu and his NASA colleagues were engaged in monitoring and analyzing climate changes on a global scale, through which they received first-hand scientific information and data relating to global warming issues, including the dynamics of polar ice cap melting. After discussing this research with colleagues who were world experts on the subject, he wrote: I now have no doubt global temperatures are rising, and that global warming is a serious problem confronting all of humanity. No matter whether these trends are due to human interference or to the cosmic cycling of our solar system, there are two basic facts that are crystal clear: (a) there is overwhelming scientific evidence showing positive correlations between the level of CO2 concentrations in Earth’s atmosphere with respect to the historical fluctuations of global temperature changes; and (b) the overwhelming majority of the world’s scientific community is in agreement about the risks of a potential catastrophic global climate change. That is, if we humans continue to ignore this problem and do nothing, if we continue dumping huge quantities of greenhouse gases into Earth’s biosphere, humanity will be at dire risk (Hsu 2010 ) . As a technology risk assessment expert, Hsu says he can show with some confidence that the planet will face more risk doing nothing to curb its fossil-based energy addictions than it will in making a fundamental shift in its energy supply. “This,” he writes, “is because the risks of a catastrophic anthropogenic climate change can be potentially the extinction of human species, a risk that is simply too high for us to take any chances” (Hsu 2010 )

### Warming DA---Turns the Case---Prolif

#### Climate turns prolif---creates the motive---and turns the economy

Nader Elhefnawy 8, Professor of English at the University of Miami, writer on IR published in journals including International Security, Astropolitics, and Survival, Autumn 2008, “The Next Wave of Nuclear Proliferation,” Parameters: The US Army War College Quarterly

The rationale driving the shift to nuclear energy in the first place (energy and climate stress) will increasingly translate into greater motivation on the part of some actors to pursue a nuclear capability. Broad economic disruption is nearly certain as the result of the tightening of oil supplies and the climate changes this scenario anticipates. Politically, this may translate into changes in the distribution of international power depending on individual states’ ability to cope (as with wealthier nations, or ones with energy-efficient economies), or even profit from these conditions (for instance, oil exporters); while the most vulnerable states may collapse, creating even greater problems for the international community (havens for crime, terrorism, or refugee flows). 27 Intensified conflict over territory and waters rich in energy and other resources will become increasingly likely.

Alliances, trading relationships, and other arrangements will be in flux, and when combined with the associated anxiety and vulnerability may exacerbate a desire on the part of certain states to minimize their vulnerability. A goal which nuclear weapons have long been viewed as a cheap way of achieving. The “nuclearization” of a single state can induce a chain reaction across a region. The nuclearization of China spurred India and in turn Pakistan to follow suit, and the Argentinean and Brazilian nuclear programs fed off one another. Today the possibility that a nuclear North Korea may lead South Korea or Japan to acquire nuclear weapons is often discussed. 28 In the Middle East there are signs that Saudi Arabia is reviewing its nuclear options, and a nuclear-armed Iran may encourage the Saudis and others in the region to continue down this path. 29

With nuclear technology more widely available these actions can be taken much more rapidly and at less cost. Those pursuing this course of action will find it a simple matter to amass large stockpiles of nuclear weapons. It is also worth noting that even were the development of actual nuclear weapons to remain a rarity, “virtual arsenals” could be more common, leaving the nuclear weapons status of a longer list of countries uncertain, in many cases deliberately so, with a detrimental impact on the security environment.30

### No Reprocessing Spread

#### Most prolif risks are from reprocessing, not enrichment---but reprocessing won’t spread globally because of cheap uranium to enrich

Michael Spies 7, research associate with the Acronym Institute for Disarmament Diplomacy, 2007, “Climate Change and Nuclear Power,” <http://wmdreport.org/ndcs/online/NuclearDisorderPart3Section1.pdf>

The reprocessing of spent reactor fuel, specifically in order to separate and recycle plutonium for re-use in reactors as mixed-oxide fuel (MOX), could lead to greater proliferation challenges than uranium enrichment. All commercial nuclear power reactors produce plutonium as a by-product. Plutonium separated from spent fuel is directly usable in a nuclear weapon. Moreover, it is estimated that a developing state with a relatively primitive weapons program can construct a bomb out of only eight kilograms of plutonium, compared to 25 kg of U-235 enriched above 90%. An estimated 238 tons of separated plutonium existed in civilian nuclear programs worldwide at the end of 2003, enough for nearly 30,000 nuclear weapons.16

Even safeguarded plutonium reprocessing facilities are risky from a non-proliferation perspective. Present difficulties in material accountancy at large-scale plutonium reprocessing plants create unacceptably large margins of errors in calculating the amount of material unaccounted for, complicating efforts to credibly and confidently apply safeguards." For example, a 1990 study by MIT nuclear researcher Marvin Miller examined the effectiveness of material accountancy for the then-planned industrial scale Rokkasho reprocessing plant in Japan. Miller demonstrated that the annual measurement error for input material into the plant, calculated to be about 1%, amounts to the equivalent of 72 kg of plutonium, enough material for at least a dozen nuclear weapons. ,s

Fortunately, due to the high costs of operating reprocessing plants and the availability of inexpensive uranium, the spread of such facilities has been very limited. The only non-nuclear weapon possessing state to operate a commercial-scale reprocessing plant is Japan. This trend is likely to hold. The MIT study concludes that, based on the availability of uranium resources and expected technological advances aiding its recovery, resorting to reprocessing will be unnecessary to meet the fuel service needs of the world's nuclear reactors for the lifetime of the plants they envision in their 1,000 gigawatt growth scenario.1\* These factors point to the undesirability of spent fuel re-processing in the near to midterm and should propel efforts to permanently limit its spread and phase out its use.

The contribution that nuclear power will actually make to reducing carbon emissions over the next few decades depends upon how rapidly it can be scaled up, and recent history is sobering. The existing global fleet of 436 commercial nuclear power reactors, with a total net installed capacity of about 370 GWe, provides about 16 percent of the world’s supply of electricity today. Depending on how the accounting is done, the emissions avoided by the nuclear fleet amount to about 650 million tons of carbon per year, or 9 percent of the current global emissions total. 8 But it has taken about 40 years for the nuclear industry to reach this level, and in the future the rate of expansion will need to be much faster if nuclear is to play a significant role in reducing carbon emissions. In business-as-usual scenarios published by the International Energy Agency and separately by the ipcc, CO2 emissions are expected to reach about 41 gigatons (GT) per year (that is, 45 percent above today’s level) by 2030 and perhaps 45–50 GT (60–80 percent above today’s level) by 2050. 9 If new nuclear power plants were called upon to eliminate, say, 25 percent of the increase in CO2 emissions that would otherwise occur in these business-as-usual scenarios, roughly 700–900 GWe of new nuclear capacity would have to be added by 2050. 10 In other words, in order to achieve the goal of displacing one quarter of the projected increase in carbon emissions, at least twice as much nuclear capacity would have to be built in the next 40 years as was built in the last 40. In fact, since many existing nuclear plants will reach the end of their useful life during this period and will have to be replaced, the actual requirement would be closer to three times the earlier result

### Warming DA---Link---2NC

#### Solving warming requires almost 100 reactors a year---and requires several new states get enrichment capabilities

Sharon **Squassoni 8**, senior associate in the Nonproliferation Program at the Carnegie Endowment, former director of Policy Coordination in the Nonproliferation Bureau of the State Department, March 12, 2008, “Nuclear Energy and Global Warming,” Testimony before the Committee on House Select Energy Independence and Global Warming, lexis

A rough approximation of where reactor capacity would expand **in a climate change scenario** is based on the high scenario of the 2003 MIT Study, "The Future of Nuclear Power." For 1500 GW capacity, MIT estimated that 54 countries (an additional 23) would have commercial nuclear power programs. This essentially **means a five- fold increase in the numbers of reactors worldwide** and an annual build rate of 35 per year. In the event that smaller-sized reactors are deployed in developing countries - which makes eminent sense - the numbers could be much higher. If nuclear energy were assumed to be able to **contribute a reduction of** between 2 and **6 billion tons of carbon per year** as outlined in the Stern Report, the resulting reactor capacity would range between 1800 GWe and 4500 GWe - increases ranging from six times to ten times current capacity. This would require building between 42 and 107 reactors per year through 2050.

Impact on Uranium Enrichment

Such increases in reactor capacity would certainly have repercussions for the front and back ends of the fuel cycle. Almost 90 percent of current operating reactors use low-enriched uranium (LEU). Presently, 11 countries have commercial uranium enrichment capacity and produce between 40 and 50 million SWU. A capacity of 1070 GWe - the one "wedge" scenario - could mean tripling enrichment capacity, requiring anywhere from 11 to 22 additional enrichment plants. A capacity of 1500 GWe would require quadrupling enrichment capacity (see slide 4). Further, if Stern Report nuclear expansion levels are achieved, enrichment capacity would have to increase ten-fold.

In assessing where new uranium enrichment capacity might develop, the MIT Study assumed that 18 states would have 10 GWe reactor capacity - the point at which domestic uranium enrichment becomes competitive with LEU sold on the international market - and thus might enrich uranium. (See slide 4 for a more modest approach, with 9 additional countries enriching uranium).