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

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

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

#### B. Negative Interpretation is Superior

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

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

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#### ---The Affirmative’s story of salvation by the little-modular-reactor-that-could assumes a narrative of progressive technological determinism that befogs effective policymaking and precludes rational risk assessment.

Carper and Schmid 2011 (Ross Carper (rosscarper@gmail.com), a writer based in Washington state, is the founding editor of the creative nonfiction project BeyondtheBracelet.com. Sonja Schmid (sschmid@vt.edu) is an assistant professor in Science and Technology Studies at Virginia Tech. “The Little Reactor That Could?” http://www.issues.org/27.4/carper.html)

“It turns out that most of the … mishaps [in nuclear plants] actually involve humans. So we were thinking today, what do we do to create a power plant control system to minimize that kind of impact? We came up with the following. The power plant of the future will have three control devices: a computer, a dog, and a guy. The computer runs the power plant because, as I said, most power plant mishaps happen because of human interaction. The dog keeps people away from the computer. And the guy is just there to feed the dog.” After lingering on the title slide a moment longer—“New. Clear. Energy.” in yellow letters—he advanced the screen and gave his opening line, a message he would revisit throughout his talk. “It’s more of a battery metaphor.” As the co-founder and president of Hyperion Power Generation, Deal was referring to his company’s starring product, which he believes will represent a radical revolution for nuclear power. He has also described the Hyperion Power Module (HPM), which is only a few feet wide and not much taller, as the iPhone of nuclear power: a compact, technologically elegant device that will be a worldwide sensation for its portability, ease of use, and applications. These first moments of a normal overview presentation contain two of Hyperion’s prominent talking points: a piece of imagery and a problem solved. HPMs are batteries that eliminate nuclear energy’s obstacles related to human error and expertise. For the latter point, his Denver talk and many others refer to the goal of taking Homer Simpson out of the equation. When Sonja Schmid and I set out to capture the story of small modular reactors, it quickly became clear that this technological coming-of-age tale is really, at least for now, a story about stories—the imagery industry leaders use to both envision their designs and communicate them to policymakers and the public. Behind the technical fact sheets, and in the years that remain before designs become physical machinery, small reactors are a movement of metaphors. On many topics, imagery doesn’t carry substantive weight. It is added for flavor, to simplify, clarify, or restate content in more vivid terms. But in the house of small nuclear reactors, metaphors seem to be weight-bearing walls. They also come in the context of a debate that couldn’t have higher stakes. On one hand, our world must quickly scale up new sources of carbon-neutral energy. On the other, the nuclear accident in Fukushima, Japan, reminded us that our attempts to do so in the nuclear sector may result in unforeseen complications that can spiral into disasters. In today’s proposals for a new nuclear approach, presentation matters. But how much does corporate imagery reveal about the technology itself and its implications, and how accurate are the pictures the industry paints? Is small beautiful? Overall, the emerging vision of small modular reactors is a major downshift from the custom-built giants of yesteryear to new railcar-ready, factory-manufactured, standardized machines with an electricity output in the range of 25 to 200 megawatts (MW), rather than the 1,000 or more MW that is typical in today’s commercial reactors. A growing faction of promoters believes that these small reactors can provide solid answers to the myriad risks nuclear energy continues to face: safety, weapons proliferation, waste management, and initial capital cost. Each small reactor design offers a unique narrative of how it will remove or reduce these risks. Recurring themes include built-in capsule-like containment, passive cooling features, pledges for more effective disposal or recycling of waste, and a kind of inverse “economies of scale”: advantages offered by small capital investment, standardization, and mass production. Because none of these small designs has yet been licensed by the Nuclear Regulatory Commission (NRC), and all of them are still several years from market deployment in even the most optimistic scenarios, they make a convenient canvas on which to paint metaphors. In the case of radically advanced reactor designs and deployment strategies, both corporations and journalists readily put vivid colors to use. Others are cast in more muted, evolutionary tones: They are miniature versions of the world’s tried-and-true light-water reactors, with substantially improved safety features. Leading revolutionary approaches in fuel, moderation, and cooling include reactors by Hyperion, Toshiba, and GE Hitachi, whereas efforts in favor of a more incremental design change include NuScale, Westinghouse, and Babcock & Wilcox. All leading small reactors create a modular option, which allows them to be pieced together like LEGO blocks to build up a customized power supply. Customers could potentially receive their prepackaged mini-reactors anywhere in the world, as long as the site is accessible by boat, truck, or rail. Judging by a rising emphasis on small modular reactors within President Obama’s past two budget requests, not to mention Energy Secretary Steven Chu’s outspoken affection for the technology, small reactors are increasingly being considered a highly exportable clean energy innovation and therefore prime candidates to implement the administration’s “win the future” message. Returning to Hyperion, the way they present their technology shows that subtlety is not a priority. In some sense, there is a space for this; the small reactor market is already revolutionary in that it allows room for entrepreneurs to join the nuclear energy ranks alongside giant, buttoned-up corporations. And some entrepreneurs have a habit of making big, bold claims—early and often. Most recently, a February 2011 Time magazine article titled “Nuclear Batteries” prominently features the “tanned and enthusiastic” Grizz Deal. Curiously, the author of the piece uses the phrase “nuclear battery” throughout, not as a metaphor but as the default label for Hyperion’s small reactor. Along the way, Deal outlines his goals for the HPM, a commercialized design that is based on work performed at Los Alamos National Laboratory. By the end of the article, he is quoted offering to “take care” of much of the world’s nuclear fuel, precluding the need for new nations to pursue enrichment or reprocessing programs, because these countries will presumably rely entirely on leasing Hyperion’s product. The Time article is not an outlier. In dozens of trade and popular press articles, interviews, and blog posts, the character of Grizz and his imagery shine through. In November 2008, he was quoted in the Guardian on Hyperion’s safety and nonproliferation features: “You could never have a Chernobyl-type event; there are no moving parts,” said Deal. “You would need nation-state resources in order to enrich our uranium. Temperature-wise it’s too hot to handle. It would be like stealing a barbecue with your bare hands.” Seeking out the origins of the venture helped us fill in some of the history behind the enthusiasm. It began with an initial shared motivation, which was recounted to us in an interview with Deborah Deal-Blackwell, Deal’s sister and cofounder of Hyperion. “My brother and I—neither of us have kids,” she said. “About five years ago, we started asking, what can we do to leave a legacy in the world? After some searching, we found that clean water was the answer.” Deal-Blackwell explained the leap from clean water to nuclear reactors. She and Deal had quickly found that providing clean water on large scales, such as through desalination, can be quite energy-intensive. So they began to explore options. After briefly looking into renewable energy sources, they decided on a nuclear solution to pursue their clean water mission. Deal had worked at Los Alamos as an entrepreneur in residence, and he knew of an advanced reactor design by the lab’s Otis Peterson that he thought would be perfect to commercialize. The HPM concept was born. Peterson’s design was technically intriguing to say the least. It would use uranium hydride, a novel nuclear fuel with unique self-regulating features that control the core’s temperature. But in 2009, foreseeing licensing delays with such a revolutionary approach, Hyperion decided on an entirely different design Los Alamos had produced: a uranium nitride–fueled fast reactor cooled by molten lead-bismuth. In other words, instead of forcing the NRC to create a new classification, Hyperion intends, for now, to fit its reactor within the somewhat more familiar, but still far from commercial, Generation IV category. Interestingly, the only previous application of a lead-bismuth cooled reactor was in the Alfa-class Soviet submarines developed in the 1960s. The HPM is also revolutionary in its size and its approach to spent fuel. The smallest of the leading design proposals, each unit would produce 25 MW of electricity, enough to power 20,000 U.S. homes—or considerably more homes in any other nation. Also unique is the approach of providing a factory-sealed unit that would be removed completely for refueling and waste removal every 5 to 10 years, alleviating proliferation concerns related to sensitive material accumulated in spent fuel. This is a clear innovation that, if successful, would be a positive step forward from traditional practice. As a result, the approach offers an advantage over other small reactor designs, which do not seem to contain substantively new solutions for dealing with the on-site accumulation of spent fuel. However, returning to the notion of human expertise reveals a clear weakness. Deal-Blackwell also told a version of the “feed the dog” joke during our interview, a repetition that implies that, in Hyperion’s view, human expertise is best handled by sealing it inside an automated technology. Although concerns about human error are legitimate, neither the public nor government regulators are ready to accept that scenario. Emerging technologies such as Hyperion’s call for a new and robust regulatory plan to determine what kind of human expertise is necessary for their safe operation, as well as how relevant knowledge can be created and maintained, transferred when appropriate (such as during export), and secured from illicit applications. For three years, the “battery” metaphor has been the centerpiece of Hyperion’s identity. Although some of this language seems to have been scrubbed from the company’s Web site, former statements are easy to find on other sites devoted to the leading edge of nuclear technology. One example, from an early Hyperion Web page, began with the text “Hyperion is different. Think Big Battery …” and ended with, “Think battery, with the benefits of nuclear power. Think Hyperion.” With this direct exhortation to nontechnical audiences on exactly how they should think about a small reactor, Hyperion is unmatched in its brazen communications. And as the Time article shows, the image has stuck. The question is whether it fits. In one way, it does. The HPM is envisioned as a self-contained sealed unit, delivered and used until its fuel has depleted, then carefully returned to a proper facility. But the comparison doesn’t hold much further than procedural similarities. A battery is a static device that converts stored chemical energy to electrical energy. It arguably does not belong in the same conversation as harnessing a nuclear chain reaction, the results of which include highly radioactive materials. Images on Hyperion’s Web site of buried, unattended nuclear reactors would make sense if they were merely batteries, but they are not. For this reason, more than one of the nuclear energy experts we interviewed used the term “fantasy” in reference to such scenarios that deploy “walk-away-safe” nuclear reactors. In the middle of Deal’s talk in Denver, he began flipping through some artist-drawn images. The most striking of all shows a small nuclear reactor, buried and unattended at what looked to be less than 15 feet below the surface. Two simple tubes snake upward from the reactor, drawing the eye to a pair of gray above-ground tanks, with the words “Potable Water” stamped on the side. The setting? An impoverished African village complete with about a dozen mud-constructed, thatch-roofed huts. A handful of people were drawn into the image, all of them walking to or from the clean water source, which is apparently powered by a $50 million HPM. Although the humanitarian goals that launched Hyperion are admirable, this quaint portrait of a Third-world problem goes beyond vivid jokes, iPods, batteries, and barbecues to reveal a full savior narrative that casts Hyperion’s small reactor as a solution to some of humanity’s direst needs. And the message is reinforced again and again. A recent news article in South Carolina’s Aiken Standard led with the following sentence: “Nuclear power is the only thing that can save the human race, Hyperion Power Generation CEO John ‘Grizz’ Deal told a crowd of more than 150 in Augusta on Wednesday.” A utopian narrative is not without precedent in the history of nuclear power. In fact, it harkens back to the early 1950s, when the American public first heard rumors that “atoms for peace” would soon yield “electricity too cheap to meter.” Early in our search for the story of small reactors, we began to notice something familiar: The shift to small modular reactors has the nuclear industry playing out the plot of The Little Engine That Could, a slice of mid–20th-century Americana that became a hallmark of children’s self-esteem building. Where the large have failed to try, or tried and failed, the Little Reactor will come along and prevail, pulling the heavy load of toys and goodies over the mountain. Or at least the Little Reactor thinks he can. An emphasis on evolution The Little Reactor character appears in many forms, most of which are far less colorful than Hyperion’s version. We spoke to Bruce Landrey, chief marketing officer at NuScale Power, a small-reactor startup based in Corvallis, Oregon. Landrey has spent his career communicating information about nuclear reactors for various companies. The story of his experiences, at its end, harmonizes well with his current employer’s approach. When Landrey graduated from the University of Oregon in the mid-1970s, he didn’t have a job, and he wasn’t necessarily looking to go into the energy sector. But soon his father was paired on the golf course with a stranger from an electric company that happened to be seeking new communications talent for the rollout of a new nuclear power plant. Eighteen holes later, Landrey’s father had positioned him, without his knowledge, as a prime candidate for the job. He applied, and was hired. “I was thrown into the deep end,” he said, remembering how little he knew about nuclear power. He also encountered an odd phenomenon related to public perception in his region. “We had a lot of protesters and demonstrations at the plant, people chaining themselves to the fence and so on,” he remembers. “But it was ironic, because the protesters were the same people I was drinking beer with the previous year at the university. But here I was, on the other side of the issue.” Landrey decided that if he would be earning his living speaking in favor of nuclear power, he would use his first six months on the job to learn everything he possibly could about the technology and its implications. He did so, becoming immersed in the technical side of nuclear reactors enough to make him confident discussing them from an environmental and safety perspective. “But what I was never comfortable with was the tremendous business risk a large nuclear power plant poses to an electric company, its customers, and its shareholders,” he said. And over the next several years, he had a front-row seat to the downsides of this risk. “The company I worked for tried to build two additional nuclear plants, which became caught up in licensing delays. Then, after the Three Mile Island accident, they were finally just abandoned.” Three decades later, Landrey still finds himself speaking up for nuclear energy, but now for NuScale. He is as risk-averse as ever when it comes to the financial challenges presented by nuclear power. So is NuScale, and this perspective guides both its technical approach and its communications. As the company sees it, their strategy builds on proven market-ready technology, familiar to regulators and the community of existing experts. Compared to revolutionaries such as Hyperion, the essence of NuScale’s metaphor is much less splashy: Our small reactor is really an improved version of the reactor down the road. It is a light-water design, which means it uses normal water as its coolant, and it shares this feature, along with standard fuel rods, with the majority of active nuclear power reactors in the world. Landrey explained some differences between NuScale and its larger predecessors, while also evoking a metaphor: a Thermos. Rather than a large concrete containment building, each reactor module comes inside its own steel vessel, which performs the containment’s safety purposes while also forming a Thermos-like vacuum between the vessel and the reactor module. This enables the reactor’s passive cooling feature, which uses natural circulation by a convection process, eliminating the need for a normal light-water reactor’s mechanical equipment or backup power generation to cool the reactor. Of course, backup power generation was the key failure that set off the Fukushima disaster and is the Achilles heel of all existing nuclear power plants. When we asked about Hyperion and other small reactor designs, Landrey was quick to draw a line in the sand between NuScale and a less traditional approach. “You have to be very careful with small modular reactors,” he said, “to distinguish what goes in the near-term commercialization category and what continues to remain a concept in a laboratory someplace. There is a big gulf—it’s really apples and oranges.” He also mentioned key differences on the topic of human expertise. Rather than automation, Landrey spoke of the importance of education and training in any context that will use NuScale reactors. The company’s plans call for an expert staff to operate the facility. For example, the top image on the company’s “Our Technology” Web page is an overhead view not of a reactor itself, but of the control room and user interfaces for plant operators. For Landrey, the evolution-versus-revolution question is a central issue to explore when looking into small reactors: Which designs, or aspects of the design, grow out of widely used commercial power reactors, and which represent completely new attempts? The unstated perspective is that the evolutionaries represent realistic near-term solutions, whereas the revolutionaries are still far more futuristic than their promoters will admit. Dusting off a design Also quick to emphasize this gulf is Babcock & Wilcox, one of the world’s preeminent suppliers of nuclear reactors. B&W is now partnering with engineering and construction giant Bechtel to develop and produce the “mPower,” a compact new light-water reactor similar in many ways to the NuScale design. Last summer, Christofer Mowry, president of B&W, told the Wall Street Journal, “Bechtel doesn’t get involved in science projects. This [agreement] is a confidence builder that the promise of this small reactor is going to materialize.” Of course, as with Landrey’s comment, such a quote cleverly forces the question into the reader’s mouth: Which of today’s small reactors should be dismissed as mere “science projects”? Although the mPower is certainly an advanced project, its first draft has been around for quite a while; our interviewees spoke of their small-reactor effort beginning by “dusting off a technology from the early eighties.” Compared to a conventional pressurized water reactor, the mPower reactor has the distinction of integrating the entire primary system (the reactor vessel, the steam generator, and the pressurizer) in one containment structure, which, according to one of the B&W engineers, “gives us a lot of inherent safety features that the large reactors don’t have.” The tendency to look backward before moving forward arose not only from B&W’s vast experience with light-water designs. First, it was a conscious response to its perception of the market. Many potential mPower customers are utilities that run today’s fossil fuel plants (not exactly the most venturesome bunch), who will perhaps one day need to turn their turbines using a carbon-neutral technology. Hypothetically, a significant number of these utilities that would be priced out of a large reactor would, in fact, be interested in a more manageably sized, and priced, option. This thinking was the result of an executive saying flatly “show me a customer” when the company’s technical leaders approached him with their idea about a small-sized, budget reactor. But a related and perhaps greater motivation for B&W’s design conservatism is the current regulatory gatekeeper. “The Nuclear Regulatory Commission… is a light water reactor regulatory agency,” one of our B&W interviewees said. “It takes a very long time to come up with a regulatory framework to be able to license another type of technology, and we wanted to get the technology to market as quickly as we could." Another interjected, "The idea was to come up with a design that capitalizes on the tremendous knowledge base that surrounds light water reactors, and then make some evolutionary changes. But when you get into revolutionary changes, the market isn't looking for that right now." The design includes a plan to bury the mPower underground. Although this feature is widely shared across the small-reactor industry, B&W offered an interesting reason when we asked why. They first referred to aesthetics; their initial rationale had been to avoid the stigma associated with the physical appearance of a nuclear power plant. The typical cooling towers and containment structures have acquired almost emblematic status among opponents of nuclear energy. Only after having volunteered these reasons did they add that the underground placement also earned them safety advantages with regard to earthquakes and missile impact. Like Mowry’s reference to “science projects,” B&W’s presentation is subtle but quick to make use of the public’s associations. Rather than taking a direct approach to force positive associations through imagery, B&W and others find the negative associations we already hold, and offer just the opposite. As they do so, the message comes back to their historical credentials, familiar technology, and the inclusion of credible players such as Bechtel. And the continuity of mPower’s design sends its loudest message to the regulatory community: This is a well-known, mastered technology, but upgraded to add significant improvements. The appeal to history Our foray into the light-water approaches coalesced in one question: Does inertia trump innovation in the U.S. nuclear industry? It would seem so, at least judging by NuScale’s and B&W’s carefully chosen paths. To some extent, even Hyperion’s shift in reactor fuel for its initial small reactor sends a similar signal. A familiar picture emerges, where the very entities that serve as the guarantor of safety also represent an obstacle to new, potentially better ideas. Perhaps unintentionally, they provide incentives for companies to continue down the well-trodden path, in exchange for faster licensing approval and shorter time to market. In terms of accounting for human expertise, evolutionary approaches do have a marked advantage. They do not seek a technical fix that eliminates the operator’s crucial role and ignores organizational and educational structures. On the downside, however, slow incremental innovations tend to neglect nuclear energy’s historical problems. The known hurdles with traditional light-water reactors, including low efficiency and unresolved waste management concerns, will arguably continue to live on for another generation, and if their industrial promoters get their way, these problems will be mass-produced and widely exported. Other potentially valuable lessons from history are also ignored; for example, why there is so little commercial experience with small nuclear reactors. In the past, small reactors have been used in research settings, for naval propulsion, and, rarely, to power research or industrial facilities at remote locations. But until recently, most small reactors for research and on submarines and icebreakers operated on highly enriched uranium, material that in sufficient quantities could be used to produce a nuclear weapon. When converted to fuel with lower enrichment, these reactors require more frequent refueling. Furthermore, the United States abandoned small reactors altogether in the 1970s to take advantage of the anticipated economies of scale to be achieved with larger power reactors. As the story has gone, in many cases the word “economy” hasn’t proven to apply. In the 1970s and 1980s, the U.S. nuclear industry was embroiled in a debate over the safety of scaling up. Would substantially increasing the size of nuclear reactors allow extrapolation from existing safety protocols, or would it in fact produce qualitatively new problems? Similar questions should be asked in today’s opposite scenario. It is far from self-evident that a compressed scale automatically produces smaller risks or that the data gathered from similarly fueled and cooled large reactors transfers down. And if the evolutionary approach does lower the risk of a given small modular reactor, who can say whether reduced risks in individual power plants are outweighed by an overall global risk of dispersing a much greater number of nuclear reactors across the planet? The Fukushima disaster has inconveniently shown a problem inherent to installing multiple reactors at one plant. After a scenario of unique failures within several reactors at once, is the prospect of a dozen or more interrelated small modular reactors on one site still as attractive? An overarching question is whether any of these risks are significantly curbed by an approach that offers familiarity, or whether this would encourage complacency. Pyotr Neporozhni, who served as the Soviet minister of energy and electrification for three decades, is reported to have dismissed concerns about nuclear safety with the quip: “A nuclear reactor is just another boiler.” Neporozhni retired in 1985, one year before Chernobyl. Although it is true that the end task is to boil water, it would be a mistake to ignore the intricate, wholly new ways in which small modular reactors will attempt to go about that task, even if widely known materials are used. A small design is not “just another light water-reactor.” Even if, as one B&W representative said, the NRC has traditionally been a “light-water–reactor agency,” its leadership does not seem to be glossing over the novel questions small modular reactors are raising. During a summer 2010 keynote address at a conference devoted to small reactors, William Ostendorff, a current member of the NRC, indicated that the question is open regarding how much history counts toward confidence about new small reactors. “There are substantial differences between the proposed concepts for SMRs [small modular reactors] and the large, light-water reactors that the NRC’s regulations were based upon,” he said. “How will prototype reactors be licensed? How will risk insights be used? How do SMRs fit into the Price-Anderson nuclear liability framework? Questions like these are not easy ones to answer.”

#### ---Their euphoric embrace of fusion technology follows the historical narrative of energy wonderment that makes environmental collapse and nuclear war inevitable by obfuscating structural inequality.

Byrne & Toly 2006

John, director of the Center for Energy and Environmental Policy (CEEP) and Distinguished Professor of Public Policy at the University of Delaware, Noah, research associate and Ph.D. candidate in the Center for Energy and Environmental Policy at the University of Delaware, Energy as a Social Project: Recovering a Discourse, *Transforming Power: Energy, Environment and Society in Conflict*, pg 1-3

With environmental crisis, social inequality, and military conflict among the significant problems of contemporary energy-society relations, the importance of a social analysis of the modern energy system appears easy to establish. One might, therefore expect a lively and fulsome debate of the sector’s performance, including critical inquiries into the politics, sociology, and political economy of modern energy. Yet, contemporary discourse on the subject is disappointing: instead of a social analysis of energy regimes, the field seems to be a captive of euphoric technological visions and associated studies of “energy futures” that imagine the pleasing consequences of new energy sources and devices. One stream of euphoria has sprung from advocates of conventional energy, perhaps best represented by the unflappable optimists of nuclear power who, early on, promised to invent a “magical fire” (Weinberg, 1972) capable of meeting any level of energy demand inexhaustibly in a manner “too cheap to meter” (Lewis Strauss, cited in the *New York Times* 1954, 1955). In reply to those who fear catastrophic accidents from the “magical fire” or the proliferation of nuclear weapons, a new promise is made to realize “inherently safe reactors” (Weinberg, 1985) that risk neither serious accident nor intentionally harmful use of high-energy physics. Less grandiose, but no less optimistic, forecasts can be heard from fossil fuel enthusiasts who, likewise, project more energy, at lower cost, and with little ecological harm (see, e.g., Yergin and Stoppard, 2003). Skeptics of conventional energy, eschewing involvement with dangerously scaled technologies and their ecological consequences, find solace in “sustainable energy alternatives” that constitute a second euphoric steam. Preferring to redirect attention to smaller, and supposedly more democratic, options, “green” energy advocates conceive devices and systems that prefigure a revival of human scale development, local self-determination, and a commitment to ecological balance. Among supporters are those who believe that greening the energy system embodies universal social ideals and, as a result, can overcome current conflicts between energy “haves” and “have-nots.” In a recent contribution to this perspective, Vaitheeswaran suggests (2003: 327, 291), “today’s nascent energy revolution will truly deliver power to the people” as “micropower meets village power.” Hermann Scheer echoes the idea of an alternative energy-led social transformation: the shift to a “solar global economy… can satisfy the material needs of all mankind and grant us the freedom to guarantee truly universal and equal human rights and to safeguard the world’s cultural diversity” (Scheer, 2002: 34). The euphoria of contemporary energy studies is noteworthy for its historical consistency with a nearly unbroken social narrative of wonderment extending from the advent of steam power through the spread of electricity (Nye, 1999). The modern energy regime that now powers nuclear weaponry and risks disruption of the planet’s climate is a product of promises pursued without sustained public examination of the political, social, economic, and ecological record of the regime’s operations.

#### ---The alternative is to reject the affirmatives technological determinism in favor of a situated analysis of individual reactors within their particular imbedded political context. Only then can we remove the policy blinders that make large scale accidents and proliferation threats inevitable.

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Mixing metaphors During her dissertation research on the Soviet nuclear industry, Schmid spent a year in Moscow, mostly penned inside musty archival reading rooms. But with a single tape recorder and without a quiet office at her disposal, she also set out to preserve a primary resource that was, and is, dying out. Former dons of the Soviet-era nuclear power program spoke with her on trains and buses, in homes and coffee shops, and over sometimes-obligatory shots of vodka. One of these interviews yielded an image that stuck with her, a counterweight to the simplifying metaphors we had encountered. Like her other interviewees, “Yuri” had been eager to speak to Schmid, but visibly relieved when she offered not to use his real name. For an elderly Russian nuclear engineer whose Cold War career had comprised stints in both military and civilian reactors, secrecy fell somewhere between a reflex and a superstition. After two terse hours with her microphone on a desk between them, they shared a cigarette break. They stood in a stairwell, holding cigarettes over the public ashtray, a large metal trash bin painted, rather sternly, the same gray as the walls. Then, in two sentences separated by a narrow downward stream of smoke, Yuri abandoned his technical talking points. “The reactors are like children; each one is different,” he said, as if suddenly remembering something he had forgotten, the central point. “You come to know their peculiarities by spending time with them; you begin to feel how each reactor breathes.” The large traditional reactors he had operated during his career were supposedly identical in design, but as he said, their personalities were quite distinct, as if there was something immeasurably complex happening beyond the components of these machines, something relational. Historically, nuclear energy has been entangled in one of the most polarizing debates in this country. Promoters and adversaries of nuclear power alike have accused the other side of oversimplification and exaggeration. For today’s industry, reassuring a wary public and nervous government regulators that small reactors are completely safe might not be the most promising strategy. People may not remember much history, but they usually do remember *who let them down before*. It would make more sense to admit that nuclear power is an inherently risky technology, with enormous benefits that might justify taking these risks. So instead of framing small reactors as qualitatively different and “passively safe,” why not address the risks involved head-on? This would require that the industry not only invite the public to ask questions, but also that they respond, even—or perhaps especially—when these questions cross preestablished boundaries. Relevant historical experience with small compact reactors in military submarines, for example, should not be off limits, just because information about them has traditionally been classified. The examples we discussed show that metaphors always simplify the complex technical calculations underlying nuclear technologies. Vivid illustrations often obscure as much as they clarify. Small reactors are not yet a reality, and the images chosen to represent them are often more advertisement than explanation. What information do we need to navigate among the images we are presented with? Clearly, some comparisons are based more on wishful thinking than on experience. A retrievable underground battery and a relationship with a child, for example, invoke quite different degrees of complexity. Carefully scrutinized, the selection of metaphors often reveals the values that go into the design of these new reactors: why one approach is safer than another, which level of risk is acceptable, and whom we should trust. Ultimately, the images offered by our interviewees are based on projections. Although it may make intuitive sense that smaller plants will be easier to manage, nuclear power involves non-nuclear, and even nontechnical, complexities that will not disappear with smaller size, increased automation, or factory-assembled nuclear components. For instance, nuclear reactors, and by extension nuclear power plants, need reliable organizations to train experts, provide everyday operation and maintenance, address problems competently when they arise, and interact effectively with the public in case of an emergency. This is not a trivial list even for high-tech nations like the United States, and it presents an even larger challenge for prospective importers of small modular reactors, particularly the developing countries with no domestic nuclear infrastructure that are clearly a major target of Hyperion’s efforts. The same goes for the projected cost of small reactors. If there are any numbers publicized at this point at all, they tend to increase monthly, not least because of the recent events in Japan. The nuclear industry may need to rethink nuclear safety issues, revisiting problems it had considered long resolved. Small modular reactors do not offer easy solutions to multiple point failure. In fact, the modular arrangement of multiple cores at one site might increase this particular risk. These questions remain, regardless of whether a new reactor follows an evolutionary or a revolutionary track. Whether the “nuclear battery” or the “just another light-water reactor” message appeals to us, we would be well advised to keep in mind the connotations of familiarity and controllability they offer in the face of unpredictable novelty. That should make us suspicious. Is what we are being sold as advantageous in fact the biggest vulnerability of these small designs? Easy transportability may look less like an asset when considered from the standpoint of proliferation. Multiple small cores might not necessarily turn out to be safer than one large one. We may remember that taking apart a machine, looking inside, and trying to figure out what is wrong ourselves can be more appealing than a machine that, like an iPod, needs to be shipped back to the factory for repair. Distributed generation sounds like a good idea when we talk about solar roof panels, but may not be as attractive when it requires highly trained expertise and accumulates radioactive waste. We don’t know all the answers yet, but we should avoid being drawn in too quickly by these metaphors, even those that are more muted than Hyperion’s. Yuri’s realization that reactors are like children, an image based on profound experience and devoid of any marketing bias, presents a different and competing picture. Rather than simplifying, Yuri’s image goes in the opposite direction. Thinking of small reactors as more like children offers a lesson in humility in the face of complexities, both technical and nontechnical. Reactors, like children, may come with their own complicated personality; they can be quite unpredictable, but they also hold the promise of a better future. Today’s small-reactor narrative isn’t a children’s story but an immensely complex novel, rife with layers of context, relationships, and flawed characters. But even children’s literature can temper itself against its own oversimplifications, as we are urging the nuclear industry to do. In 1974, Shel Silverstein published his reaction to The Little Engine That Could, flipping the empowerment narrative to a cautionary tale. The last stanza of his poem “The Little Blue Engine” warns against allowing confidence and optimism to become hubris: He was almost there, when — CRASH! SMASH! BASH! He slid down and mashed into engine hash On the rocks below … which goes to show If the track is tough and the hill is rough, THINKING you can just ain’t enough! For the small-reactor movement to truly come of age, the metaphors we use to describe it must also mature. Convenient images, save-the-day narratives, and a we-think-we-can reliance on a purely technical fix must be balanced by a broader examination of a full range of metaphors, the complexities they capture or ignore, and the social, political, and organizational contexts in which these machines will ultimately be used.

### 1nc

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

Froggatt 6/6/12

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

Chinese Nuclear Goes Global

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

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

Hall-Energy Digital-1/23/12

US to Explore Small Nuclear Reactor Designs

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

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

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

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

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

Chinese nuclear exports key to soft power

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

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

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

#### Chinese soft power key to international security and resolving all global problems

Zhang-professor at the Geneva School of Diplomacy and International Relations-9/4/12

http://www.china.org.cn/opinion/2012-09/04/content\_26421330.htm

The rise of China's political soft power

As China plays an increasingly significant role in the world, its soft power must be attractive both domestically as well as internationally. The world faces many difficulties, including widespread poverty, international conflict, the clash of civilizations and environmental protection. Thus far, the Western model has not been able to decisively address these issues; the China model therefore brings hope that we can make progress in conquering these dilemmas. Poverty and development The Western-dominated global economic order has worsened poverty in developing countries. Per-capita consumption of resources in developed countries is 32 times as large as that in developing countries. Almost half of the population in the world still lives in poverty. Western countries nevertheless still are striving to consolidate their wealth using any and all necessary means. In contrast, China forged a new path of development for its citizens in spite of this unfair international order which enabled it to virtually eliminate extreme poverty at home. This extensive experience would indeed be helpful in the fight against global poverty. War and peace In the past few years, the American model of "exporting democracy'" has produced a more turbulent world, as the increased risk of terrorism threatens global security. In contrast, China insists that "harmony is most precious". It is more practical, the Chinese system argues, to strengthen international cooperation while addressing both the symptoms and root causes of terrorism. The clash of civilizations Conflict between Western countries and the Islamic world is intensifying. "In a world, which is diversified and where multiple civilizations coexist, the obligation of Western countries is to protect their own benefits yet promote benefits of other nations," wrote Harvard University professor Samuel P. Huntington in his seminal 1993 essay "The Clash of Civilizations?". China strives for "being harmonious yet remaining different", which means to respect other nations, and learn from each other. This philosophy is, in fact, wiser than that of Huntington, and it's also the reason why few religious conflicts have broken out in China. China's stance in regards to reconciling cultural conflicts, therefore, is more preferable than its "self-centered" Western counterargument. Environmental protection Poorer countries and their people are the most obvious victims of global warming, yet they are the least responsible for the emission of greenhouse gases. Although Europeans and Americans have a strong awareness of environmental protection, it is still hard to change their extravagant lifestyles. Chinese environmental protection standards are not yet ideal, but some effective environmental ideas can be extracted from the China model. Perfecting the China model The China model is still being perfected, but its unique influence in dealing with the above four issues grows as China becomes stronger. China's experiences in eliminating poverty, prioritizing modernization while maintaining traditional values, and creating core values for its citizens demonstrate our insight and sense of human consciousness. Indeed, the success of the China model has not only brought about China's rise, but also a new trend that can't be explained by Western theory. In essence, the rise of China is the rise of China's political soft power, which has significantly helped China deal with challenges, assist developing countries in reducing poverty, and manage global issues. As the China model improves, it will continue to surprise the world.

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

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

Nuclear Power and China’s Energy Future: Limited Options

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

#### 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 )

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

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

Report: China’s actions are crucial on climate change

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

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

### 1nc

CIR will pass this year---bipartisan consensus, but it can still be broke

CNBC 1/7/13 (“Why Immigration Reform May Happen This Year” http://www.cnbc.com/id/100351691)

A long-awaited overhaul of U.S. immigration law has a good chance of happening this year, bringing major changes to the millions of people living here illegally—and perhaps giving the economy a boost. While details are sketchy right now, the Obama administration last week announced it is launching a major effort to push reforms through Congress soon. A major goal is to expand the guest worker program to allow more foreign nationals to legally work in the U.S. But the biggest hurdle may be whether to grant amnesty to millions of illegal immigrants in the U.S.—or deport them. Analysts say that unlike failed attempts in the past, they expect reform to get done this time—and it could end up being beneficial for the still sluggish economy. (Read more: Bleak Global Economy) "If there's a way to bring millions of people legally into our system, they'd be paying more taxes and spending more money and creating more jobs," said Michael Wildes, managing partner of the immigration law firm Wildes & Weinberg. "It would be a big boost to the economy and any kind of amnesty provision that includes fees from illegal immigrants would help fill the treasury." Others agree that this is the year something will get done. "I think some type of reform will happen soon," said Jim Witte, director of the Institute for Immigration Research at George Mason University. "There are traditional allies among Democrats but there's also a growing conservative coalition of businesses and law enforcement who want immigration reform as well." (Read more: Disney To Layoff Workers?) I'ts estimated that some 40 million people in the U.S. are immigrants, according to the Census Bureau, with anywhere from 7 million to 20 million of them in the country illegally. Economic activity produced by illegal immigrant spending employs about 5 percent of the total U.S. workforce, according to a study by UCLA. The research indicates illegal immigrants produce a total of $150 billion of economic activity each year. And billions of dollars from illegal worker paychecks flow into and support the Social Security system--some $7.2 billion in 2009 alone, that they will be unable to collect. "The irony is that illegal immigrants are not entitled to many of the benefits they pay for," said Jamie Longazel, a professor of sociology at the University of Dayton. "The reality is that many people receive benefits on the backs of those who suffer." How to integrate them—or not—into the country could be the a stumbling block to any reform. But the idea of deporting millions of people isn't realistic, said Christine Greer, an assistant professor of political science at Fordham University. "We can't just pick up and move some 15 million people and their families out of the country," Greer said. "It's not feasible to do that. Besides, many kids came here with parents and had no choice. Some of the kids don't even speak the language of their native land." But it's not just illegal immigration that's at stake. Some analysts have argued that since the late 1990s, the U.S. needs to find a way to allow more workers—most specifically skilled tech workers—to enter legally. There are nearly one million people working in the U.S. under the current guest worker programs that allow U.S. employers to sponsor non-U.S. citizens in the country with temporary visas. That number is not big enough, said Scott Cooper, managing attorney at the immigration law firm of Fragomen, Del Rey, Benson & Lowey. (Read more: Why End of Stimulus May Not Be All Bad) "The U.S. needs more skilled workers from abroad and be more receptive to the contributions they make economically," said Cooper. "We're limiting our economy by not letting more in." "We need go beyond the current quota of 140,000 legal immigrants per year and allow more qualified people with math and science skills to enter the U.S.," said Ted Ruthizer, a lawyer who teaches immigration law and policy at Columbia University. said. "The Job market is screaming for them." But not everyone sees an economic rainbow with immigrants, legal or not. (Read more: US May Get Messy Again: Roubini) "Their contribution is large, but I think it's hard to accurately say what impact immigrants have on the economy, especially when it comes to the earnings and spending of illegal immigrants," said Jim Witte. "You can say that some competition from illegal workers may depress the wages of legal workers. On the other hand you can also say that cheaper illegal labor frees up people at higher skill levels to put their talents to a higher value," Witte said. Business groups, like the U.S. Chamber of Commerce have called for tighter border security but also say they advocate establishing provisional visas for lesser skilled workers, having sufficient numbers of visas for the highly skilled and for agriculture workers. "These changes would allow employers to hire immigrants in accordance with the demands of the economy, when U.S. workers are unavailable," according to the chamber's web site. For the Federation for American Immigration Reform (FAIR), who contend that immigrants are a drain on the economy, any reforms must include not only stricter border controls but tougher laws limiting any kind of immigration -- with amnesty for no one. "We blame the business community as well as others because we're bringing in people who have poor job skills, are poorly educated and relegated to the lower rung on the economic ladder," said Ira Mehlman, a spokesman for FAIR. "We end up paying for all their health care they take away jobs from Americans." (Read more: Heath Insurance Rates Rise) The last attempt at reform came in 2007 from President George W. Bush who advocated an expanded guest worker program that would tighten security along the southern border while allowing about 11 million illegal immigrants to work legally in the country temporarily before forcing them to return home. But the measure failed to get any support in Congress. That lack of action spurred some states, like Arizona and Alabama, to pass their own stringent and controversial immigration laws. What's different now on the national level--and why reform is likely to become law in the months ahead -- is a shift in the political scene, said Scott Cooper. "The recent presidential election changed things with the immigration vote going so strongly to Obama," Cooper said. "So that's why I think there will be reform because the Republicans need it to win elections and Obama has to give something to the immigration groups that voted for him." Despite what many consider the best chances in decades for reform, getting it done won't be easy. "I'n not optimistic about any reform package because of the extent to which current policy reflects corporate interests for cheap labor and the fact that most politicians lack the courage to stand up to those who spout ant-immigration sentiment," said Jamie Longazel. Immigration reform is hard to do anytime because of the many misconceptions about it, said Evie P. Jeang, founder and managing partner of the Ideal Legal Group, an immigration and labor law firm. "The myths are that immigrants steal jobs, commit more crimes, mooch off our health care and don't pay taxes," said Jeang. "The studies have shown that's not true. Even unlawful immigrants pay more in taxes that they use in welfare services." But there are reasons for optimism. A so called bi-partisan 'Gang of Eight' of U.S. senators has been meeting since the first week of December to discuss reform. They include Democrats Chuck Schumer, Dick Durban and Bob Menendez as well as Republicans Lindsey Graham, Mike Lee and John McCain. Schumer said he and Graham are reviving talks about an immigration reform proposal they started in 2010. (Read more: Most Stressful Jobs)

DOD smrs drain capital

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

Some have argued that the Department of Defense (DOD) would be a unique testing ground for an SMR demonstration. While this might be true, there does not appear to be enough political will for using the DOD as a site for energy experimentation. A DOD SMR program might also entail high political costs due to the larger defense cut negotiations that are taking place in Congress as part of the fiscal cliff. The bottom line: the administration’s recent moves are a sign that SMRs are poised to play a large role in any nuclear energy future.

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

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

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

**Decline goes nuclear**

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

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

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

### 1nc

#### The United States Federal Government, should:

#### ---Obtain, through alternative financing, advanced microgrids for military bases in the United States, maximized to account for site specific energy factors. This should include increased support for renewable energy sources.

#### ---Necessary funding should not be provided from existing funds or programs of the Department of Energy, the Department of Defense. Necessary funding should be provided through creation of a non-budgetary funding stream placing a 1 mill per kilowatt surcharge on commercial electricity and a 2 cents per gallon surcharge on non-federal transportation fuel. Additional funding should be provided through designating a necessary portion of federal oil and gas royalty revenue.

#### Only the parity option speeds up licensing, leads to approval, and solves safety

Reynolds 2010

Roger S., Adjunct Mechanical Engineering Professor WSU Tri-Cities, "APPLICABILITY OF THE NRC LIGHT WATER REACTOR LICENSING PROCESS TO SMRs," July 2010, https://smr.inl.gov/Document.ashx?path=DOCS%2fReading+Room%2fPolicy+and+regulation%2fANS+SMR+APPLICABILITY+OF+THE+NRC+LWR+LICENSING+PROCESS+910.pdf

4. TECHNOLOGY-NEUTRAL FRAMEWORK: PARITY OPTION

As noted above, the only option currently available for gaining approval of a deviation from a binding requirement is the exemption process. In this option, the licensee is exempted from meeting a requirement based on a demonstration of low public risk and the presence of “special circumstances.” The implication of granting an exemption is that the design feature is deficient in some way but is acceptable because the safety impact is minimal. The granting of numerous exemptions has the disadvantage of raising the question whether the combined result of these minimal effects might be significant. SMR designs are not deficient; they are in fact inherently safe in many ways. The parity option allows an applicant to gain license approval by demonstrating the inherent safety qualities of the design. The essence of this option is to enact an NRC change process that justifies deviations from the current regulations based on an integrated analysis of the fundamental features of the plant. The acceptance criteria for approval under the new change process would require demonstrating that the design provides a level of protection of the public health and safety that is equivalent to or better than what is provided by compliance with the current regulations. The approval of a non-LWR design would still be technically complex under this proposal. The advantage is that the complexity will be dealt with in the NRC review process, not in the rulemaking process. Many options exist for facilitating the treatment of technical complexity in the context of the review process. Two examples of processes that have proved effective to gain NRC staff approval, in principal, for a new approach to achieving compliance and assuring safety are the industry consensus submittal and the topical report process, described as follows: • Industry Consensus Standards: Review of consensus standards or Nuclear Energy Institute (NEI) task reports provide SER conclusions that can be relied on in individual licensing decisions. These industry consensus reports have been used on issues like fire protection, quality assurance, emergency planning action levels, operator training, and other administrative procedures. The industry and NRC can work toward a review structure for common issues in DC submissions, much the same way the industry Design Centered Working Groups (DCWGs) resolve common issues in DC, Reference Combined Construction and Operating License Application (R-COLA), and Standard Combined Construction and Operating License Application (S-COLA) reviews. This avenue takes advantage of the vast resources available to the SDOs. However, the standards development process can be time-consuming. • Topical Reports: For vendor-specific issues, vendors can submit topical reports, the goal being to resolve a specific licensing issue applicable to that vendor or to preserve vendor proprietary information that could not be protected in an industry consensus standard. When a topical report is approved by the staff, it represents staff approval of the use of that approach that can be relied on in the review of future regulatory submittals. This approach is likely to be quicker than the standards development process. However, the vendor will have to bear the entire resource burden. Finally, for any process used, there should be transparency for the benefit of all stakeholders to understand the level of protection provided by the innovative designs. Early definitive decisions by the NRC aid transparency. The public benefits not only from knowing what the applicant proposed but also from knowing what the NRC conclusions are. Currently, the NRC is finalizing SERs for many of the designs undergoing DC and combined OL review on a chapter-by-chapter basis. Early decisions on individual chapters of the SER for designs enhance transparency rather than making the public wait years for the entire SER. For SMRs of the LWR design, the exemption process is sufficient for licensing. For non-LWR designs, a technology-neutral framework is needed. Two options for a technology-neutral framework are presented in this paper: the general-safety-standards option and the parity option. It may be impractical and expensive to pursue rulemaking to accommodate each of the areas in which SMRs differ from LWR designs. It may also be impractical to contemplate the issuance of numerous exemptions to approve the ways in which SMRs do not conform to current requirements. It would be more efficient to pursue rulemaking to implement a technology-neutral framework based on the parity change process, where the advantages of SMRs can be compared on an equal footing to those of current designs. In this way, decisions about compliance of SMRs with the regulations can be made in a balanced manner. This process would allow an innovative design to be approved by demonstrating “parity” with current plants, that is, protection equivalent to or greater than that provided by compliance with the current regulations. The change process proposed allows for the provision of a coherent safety case, i.e., a convincing demonstration that the design is safe enough.

Microgrid solves---protects critical missions

DEFENSE COMMUNITIES 360-8/5/12

Microgrids Offer Improved Energy Security, Study Concludes

http://www.defensecommunities.org/microgrids-offer-improved-energy-security-study-concludes/#

Advanced microgrids offer a cost-effective solution to military installations’ growing vulnerability to the fragile electric grid, according to a study released last month by DOD’s office of installations and environment. The study, performed by MIT Lincoln Laboratory, illustrates the largely untapped potential of moving to smarter, next generation microgrids that can accommodate much greater use of renewable energy sources and tighter integration with the electrical grid. A microgrid that can operate when tied to the grid would offer new opportunities for the military to generate cost savings by using backup generation assets during normal operation and generate financial revenue by using advanced ancillary services. The study found that the combination of on-site energy generation and storage, together with a microgrid’s ability to manage local energy supply and demand, allow installations to shed non-essential loads and maintain mission-critical loads if the electric grid is disrupted. There is no “one size fits all” solution, the report concludes. The location of an installation influences the options available for energy sources and interaction with the local utility, the characteristics of the local electricity market and the regulatory environment. The most effective microgrids will be those that take into account the needs of the local commercial electric grid and are configured so that they can earn value helping to meet those needs.

#### Uniqueness and issue specific spillover – military bases pursuing strong and collaborative local community relations now - key to solve land encroachment issues vital to military effectiveness - but energy citing decisions that cause local community backlash specifically spillover and undermine

Boccuti, Faul and Gray, 12

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

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

#### We have 3 independent links

#### Local community backlash - Even your solvency advocates admit the link is true and highly likely

Andres and Breetz 11

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

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

#### plan sends critical signal of isolation to both local community and base officials - Military bases prioritizing community integration now

Parthemore and Rogers, 10

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

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

#### Impact - strong local community relations are vital to military effectiveness

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

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

### Grid

#### Cyber D

#### No attarck – Interdisciplinary research goes neg

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

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

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

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

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

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

Sommer & Brown 11

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

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

#### China D

#### ---Economic interdependence and changing ideology makes war over Taiwan unlikely.

Ross 2004

Robert, Professor of Political Science @ Boston College, Chinese Foreign Policy in Transition, pg. 147

China’s ability to wreak havoc is not new to East Asia. Since 1949 the United States has had to cope with U.S.-Chinese conflicts of interest. In many respects, it is easier to deal with these conflicts today than ever be¬fore. Indochina is no longer an issue. China is collaborating with South Korea to encourage North Korean moderation. Even the conflict with Taiwan has become more manageable. Taiwan now has a stable government, a prosperous economy, and a vastly improved military. The mainland’s ability to challenge Taiwan’s security is less today than ever before. Moreover, the mainland is no longer allied with a global superpower that can shield it in a conflict with the United States over Taiwan. Nor is it an antagonist in a polarized East Asian balance of power. Participation in the global economy and a stake in regional stability encourage China to avoid confrontations with the United States over Taiwan.

#### ---No risk of Sino/American war.

Rosecrance et al 2010

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

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

### Competitiveness

#### Leadership D

#### Economic leadership is resilient

Drezner 12 (Daniel, is professor of international politics at the Fletcher School of Law and Diplomacy at Tufts University, a senior editor at The National Interest , and a contributing editor at Foreign Policy. Prior to Fletcher, he taught at the University of Chicago and the University of Colorado at Boulder. “Predictions about the death of American hegemony may have been greatly exaggerated” <http://drezner.foreignpolicy.com/posts/2012/01/22/predictions_about_the_death_of_american_hegemony_may_have_been_greatly_exaggerated?wpisrc=obinsite>)

Let's face it, there's a general anxiety about the future of America. There's Tom Friedman's column today, which my doctors have now forbade me from critiquing in order to keep my blood pressure down. Books suggesting the United States is kowtowing to China are forthcoming. The Economist recently observed on the highlights of a sobering survey of Harvard Business School graduates, which contained the following: Fully 71% of the businesspeople polled expected America’s competitiveness to decline over the next three years. (National competitiveness is a slippery concept: countries do not compete in the same way that firms do. But the businessfolk in question answered some clearer questions, too.) Some 45% said that American firms will find it harder to compete in the global economy. A startling 64% said that American firms will find it harder to pay high wages and benefits. Intriguingly, the Harvard alumni were gloomy about where America is headed, rather than how it is now. Some 57% felt that today the business environment in America is somewhat or much better than the global average; only 15% said it was worse. But when asked to compare its prospects with those of other industrialised economies, only 9% felt that America was pulling ahead; some 21% said it was falling behind. A striking 66% expected America to lose ground to Brazil, India and China; only 8% thought it would pull away from them. This would seem to jibe with popular laments about why Apple can't make its products domestically. There are a lot of reasons, but a significant one is the lack of necessary skills for higher-end manufacturing. This is in no small part because American students shy away from the training necessary to do these kind of jobs even if they originally think they want to be engineers. Why? Because American college students don't like doing homework. So, America is doomed, right? To be honest, this sounds like a lot of pious baloney. As Michael Beckley points out in a new article in International Security, "The United States is not in decline; in fact, it is now wealthier, more innovative, and more militarily powerful compared to China than it was in 1991." The whole article is worth a read, and a good cautionary tale on the dangers of overestimating the ease of national catch-up: The widespread misperception that China is catching up to the United States stems from a number of analytical flaws, the most common of which is the tendency to draw conclusions about the U.S.-China power balance from data that compare China only to its former self. For example, many studies note that the growth rates of China’s per capita income, value added in hightechnology industries, and military spending exceed those of the United States and then conclude that China is catching up. This focus on growth rates, however, obscures China’s decline relative to the United States in all of these categories. China’s growth rates are high because its starting point was low. China is rising, but it is not catching up. What about the future? One could point to the last few months of modestly encouraging economic data, but that's ephemeral. Rather, there are three macrotrends that are worth observing now before (I suspect) they come up in the State of the Union: 1) The United States is successfully deleveraging. As the McKinsey Global Institute notes, the United States is actually doing a relatively good job of slimming down total debt -- i.e., consumer, investor and public debt combined. Sure, public debt has exploded, but as MGI points out, that really is the proper way of doing things after a financial bubble: The deleveraging processes in Sweden and Finland in the 1990s offer relevant lessons today. Both endured credit bubbles and collapses, followed by recession, debt reduction, and eventually a return to robust economic growth. Their experiences and other historical examples show two distinct phases of deleveraging. In the first phase, lasting several years, households, corporations, and financial institutions reduce debt significantly. While this happens, economic growth is negative or minimal and government debt rises. In the second phase of deleveraging, GDP growth rebounds and then government debt is gradually reduced over many years.... As of January 2012, the United States is most closely following the Nordic path towards deleveraging. Debt in the financial sector has fallen back to levels last seen in 2000, before the credit bubble, and the ratio of corporate debt relative to GDP has also fallen. US households have made more progress in debt reduction than other countries, and may have roughly two more years before returning to sustainable levels of debt. Indeed, the deleveraging is impressive enough for even Paul Krugman to start sounding optimistic: the economy is depressed, in large part, because of the housing bust, which immediately suggests the possibility of a virtuous circle: an improving economy leads to a surge in home purchases, which leads to more construction, which strengthens the economy further, and so on. And if you squint hard at recent data, it looks as if something like that may be starting: home sales are up, unemployment claims are down, and builders’ confidence is rising. Furthermore, the chances for a virtuous circle have been rising, because we’ve made significant progress on the debt front. 2) Manufacturing is on the mend. Another positive trend, contra the Harvard Business School and the GOP presidential candidates, is in manufacturing. Some analysts have already predicted a revival in that sector, and now the data appears to be backing up that prediction. The Financial Times' Ed Crooks notes: Plenty of economists and business leaders believe that US manufacturing is entering an upturn that is not just a bounce-back after the recession, but a sign of a longer-term structural improvement. Manufacturing employment has grown faster in the US since the recession than in any other leading developed economy, according to official figures. Productivity growth, subdued wages, the steady decline in the dollar since 2002 and rapid pay inflation in emerging economies have combined to make the US a more attractive location. “Over the past decade, the US has had some huge gains in productivity, and we have seen unit labour costs actually falling,” says Chad Moutray, chief economist at the National Association of Manufacturers. “A lot of our members tell us that it sometimes is cheaper to produce in the US, especially because labour costs are lower.” Now, whether this boom in manufacturing will lead to a corresponding boom in manufacturing employment is much more debatable. Still, as The Atlantic's Adam Davidson concludes: "the still-unfolding story of manufacturing’s transformation is, in many respects, that of our economic age. It’s a story with much good news for the nation as a whole. But it’s also one that is decidedly less inclusive than the story of the 20th century." 3) A predicted decline in energy insecurity. British Petroleum has issued their Energy Outlook for 2030. The Guardian's Richard Wachman provides a useful summary: Growth in shale oil and gas supplies will make the US virtually self-sufficient in energy by 2030, according to a BP report published on Wednesday. In a development with enormous geopolitical implications, the country's dependence on oil imports from potentially volatile countries in the Middle East and elsewhere would disappear, BP said, although Britain and western Europe would still need Gulf supplies. BP's latest energy outlook forecasts a growth in unconventional energy sources, "including US shale oil and gas, Canadian oil sands and Brazilian deepwater, plus a gradual decline in demand, that would see [North America] become almost totally energy self-sufficient" in two decades. BP's chief executive, Bob Dudley, said: "Our report challenges some long-held beliefs. Significant changes in US supply-and-demand prospects, for example, highlight the likelihood that import dependence in what is today's largest energy importer will decline substantially." The report said the volume of oil imports in the US would fall below 1990s levels, largely due to rising domestic shale oil production and ethanol replacing crude. The US would also become a net exporter of natural gas. Note that this will take a while, and doesn't mean that the U.S. will be energy independent. Still, it's quite a trend. Or, rather, trends. Since the Second World War, the pattern in the global political economy has been for the United States to adjust to systemic shocks better than any potential challenger country. A lot of very smart people have predicted that this time was different -- the United States wouldn't be able to do it again. These trends suggest that maybe, just maybe, that might be wrong

#### Competitiveness not key to leadership—US and Britan in 20’s prove

**Ferguson 03** (Nail Ferguson is a Herzog professor of financial history at New York University's Stern School of Business. His most recent book is The Cash Nexus: Money and Power in the Modern World, 1700-2000, Foreign Affairs, “Power”. Jan/Feb 3003.)

Not necessarily. It's tempting to assume that power is synonymous with a large economy-that big GDP equals big power. Hence many analysts point to China's huge economy and rapid growth as evidence that the country will soon gain superpower rank, if it hasn't already. Just project forward the average annual growth rates of the past 30 years, and Chinese GDP will equal that of the United States and exceed that of the EU within just two decades. But GDP doesn't stand for great diplomatic power. If institutions aren't in place to translate the economy grows faster than public interest in foreign affairs-then product is nothing more than potential power. The United States over-took Great Britain in terms of GDP in the 1870s. But it was not until World War I that the United States finally overtook the British Empire as a global power. In any case, national growth rates in the next 20 years are unlikely to match those of the last three decades. Depressed Japan's will almost certainly be lower, while growth in the United States might conceivably be higher, if there is any truth to the claim that investments in information technology during the 1990s permanently boosted U.S. productivity. And China will have trouble sustaining average annual growth rates of more than 5 percent in the coming decades. Already the Asian behemoth is suffering serious social growing pains as market forces rend asunder what was once a command economy. Before 1914, Russia had the fastest growing economy in Europe. But the ensuing social polarization and war caused Russia's collapse in 1917.

#### Domestic factors determine power and performance

Krugman 94 (Paul, “Competitiveness: A Dangerous Obsession,” April 1994, Paul Krugman joined The New York Times in 1999 as a columnist on the Op-Ed Page and continues as professor of Economics and International Affairs at Princeton University. At MIT he became the Ford International Professor of Economics. Mr. Krugman is the author or editor of 20 books and more than 200 papers in professional journals and edited volumes. His professional reputation rests largely on work in international trade and finance; he is one of the founders of the "new trade theory," a major rethinking of the theory of international trade. In recognition of that work, in 1991 the American Economic Association awarded him its John Bates Clark medal)

In fact, however, trying to define the competitiveness of a nation is much more problematic than defining that of a corporation. The bottom line for a corporation is literally its bottom line: if a corporation cannot afford to pay its workers, suppliers, and bondholders, it will go out of business. So when we say that a corporation is uncompetitive, we mean that its market position is unsustainable -- that unless it improves its performance, it will cease to exist. Countries, on the other hand, do not go out of business. They may be happy or unhappy with their economic performance, but they have no well-defined bottom line. As a result, the concept of national competitiveness is elusive. One might suppose, naively, that the bottom line of a national economy is simply its trade balance, that competitiveness can be measured by the ability of a country to sell more abroad than it buys. But in both theory and practice a trade surplus may be a sign of national weakness, a deficit a sign of strength. For example, Mexico was forced to run huge trade surpluses in the 1980s in order to pay the interest on its foreign debt since international investors refused to lend it any more money; it began to run large trade deficits after 1990 as foreign investors recovered confidence and began to pour in new funds. Would anyone want to describe Mexico as a highly competitive nation during the debt crisis era or describe what has happened since 1990 as a loss in competitiveness? Most writers who worry about the issue at all have therefore tried to define competitiveness as the combination of favorable trade performance and something else. In particular, the most popular definition of competitiveness nowadays runs along the lines of the one given in Council of Economic Advisors Chairman Laura D'Andrea Tyson's *Who's Bashing Whom?*: competitiveness is "our ability to produce goods and services that meet the test of international competition while our citizens enjoy a standard of living that is both rising and sustainable." This sounds reasonable. If you think about it, however, and test your thoughts against the facts, you will find out that there is much less to this definition than meets the eye. Consider, for a moment, what the definition would mean for an economy that conducted very little international trade, like the United States in the 1950s. For such an economy, the ability to balance its trade is mostly a matter of getting the exchange rate right. But because trade is such a small factor in the economy, the level of the exchange rate is a minor influence on the standard of living. So in an economy with very little international trade, the growth in living standards -- and thus "competitiveness" according to Tyson's definition -- would be determined almost entirely by domestic factors, primarily the rate of productivity growth. That's domestic productivity growth, period -- not productivity growth relative to other countries. In other words, for an economy with very little international trade, "competitiveness" would turn out to be a funny way of saying "productivity" and would have nothing to do with international competition. But surely this changes when trade becomes more important, as indeed it has for all major economies? It certainly could change. Suppose that a country finds that although its productivity is steadily rising, it can succeed in exporting only if it repeatedly devalues its currency, selling its exports ever more cheaply on world markets. Then its standard of living, which depends on its purchasing power over imports as well as domestically produced goods, might actually decline. In the jargon of economists, domestic growth might be outweighed by deteriorating terms of trade. So "competitiveness" could turn out really to be about international competition after all. There is no reason, however, to leave this as a pure speculation; it can easily be checked against the data. Have deteriorating terms of trade in fact been a major drag on the U.S. standard of living? Or has the rate of growth of U.S. real income continued essentially to equal the rate of domestic productivity growth, even though trade is a larger share of income than it used to be? To answer this question, one need only look at the national income accounts data the Commerce Department publishes regularly in the Survey of Current Business. The standard measure of economic growth in the United States is, of course, real gnp -- a measure that divides the value of goods and services produced in the United States by appropriate price indexes to come up with an estimate of real national output. The Commerce Department also, however, publishes something called "command gnp." This is similar to real gnp except that it divides U.S. exports not by the export price index, but by the price index for U.S. imports. That is, exports are valued by what Americans can buy with the money exports bring. Command gnp therefore measures the volume of goods and services the U.S. economy can "command" -- the nation's purchasing power -- rather than the volume it produces.\ And as we have just seen, "competitiveness" means something diFFerent from "productivity" if and only if purchasing power grows significantly more slowly than output. Well, here are the numbers. Over the period 1959-73, a period of vigorous growth in U.S. living standards and few concerns about international competition, real gnp per worker-hour grew 1.85 percent annually, while command gnp per hour grew a bit faster, 1.87 percent. From 1973 to 1990, a period of stagnating living standards, command gnp growth per hour slowed to 0.65 percent. Almost all (91 percent) of that slowdown, however, was explained by a decline in domestic productivity growth: real gnp per hour grew only 0.73 percent. Similar calculations for the European Community and Japan yield similar results. In each case, the growth rate of living standards essentially equals the growth rate of domestic productivity -- not productivity relative to competitors, but simply domestic productivity. Even though world trade is larger than ever before, national living standards are overwhelmingly determined by domestic factors rather than by some competition for world markets. How can this be in our interdependent world? Part of the answer is that the world is not as interdependent as you might think: countries are nothing at all like corporations. Even today, U.S. exports are only 10 percent of the value-added in the economy (which is equal to gnp). That is, the United States is still almost 90 percent an economy that produces goods and services for its own use.

#### No protectionist backlash from sluggish competitiveness

Suominen 9(transatlantic fellow at the German Marshall Fund of the United States and trade economist at the Inter-American Development Bank in Washington, 2009 (Kati, “A New Age Of Protectionism? the Economic Crisis And Transatlantic Trade Policy”, the German Marshall Fund Of The United States, [http://www.gmfus.org//doc/Suominen%20final.pdf](http://www.gmfus.org/doc/Suominen%20final.pdf), March 2009)

This paper makes three arguments First, fears of an all-out trade war and spiraling protectionist backlash are exaggerated. There are a great many insurance policies in place to pre-empt anything akin to the beggar-thy-neighbor policies of the 1930s, including a solid multilateral system with bound tariffs and a credible dispute settlement mechanism, dozens of bilateral free trade deals with often deep tariff commitments, solid intellectual backing for free trade, well-organized export lobbies, and the unprecedentedly large stake that countries around the world have in the policies of their trading partners and the fortunes of the global trading system.

Trade is not zero sum---declines in productivity are due to domestic factors not better products by other nations---those bolster the economy

Krugman 94 (Paul, Nobel Prize winning economist, econ prof, “COMPETITIVENESS: DOES IT MATTER?” http://www.myvirtualdisplay.com/2007/01/17/paul-krugman-an-old-piece-on-national-competitiveness/)

(2) “Competing in the world marketplace.” Again, strategic traders hold that countries compete with each other in the same way that Nike competes with Reebok; they attribute the long stagnation of middle-class living standards in the U.S. to a failure to do this effectively. What’s wrong with their thinking? At a conceptual level, the most basic point about international trade is that it is not a zero-sum game. Companies like Nike and Reebok are almost purely rivals: Only a tiny fraction of Nike’s sales are to Reebok workers, and vice versa. So one’s success tends to be at the other’s expense. But the major industrial countries, while they sell products that compete with each other, are also each other’s main export markets and main suppliers of useful imports. If anything, a successful European or Japanese economy helps the U.S. by providing us with larger markets. Moreover, the purpose of international trade — the reason it is useful — is to import, not to export. That is, what a country really gains from trade is the ability to import things it wants. Exports are not an objective in and of themselves; the need to export is a burden that a country must bear because its import suppliers are crass enough to demand payment. But isn’t it a fact that the stagnation of U.S. living standards has been in large part due to a failure to compete effectively on world markets? No, it’s not a fact. From 1979 to 1989 the real compensation of all U.S. workers rose 5.8%, while productivity rose 5.1%. These are purely domestic variables — that is, productivity is not measured relative to other countries, and no data about global market shares or anything that involves the global economy are taken into account. Yet the two series rose by almost exactly the same (disappointing) amount. So we got almost exactly the growth in living standards we would have gotten if the U.S. were alone in the world and we had no international trade at all.

#### Nuclear Leadership/Prolif

#### US nuclear leadership is irrelevant—countries won’t buy US if its constraining

Lewis 12

Jeffrey Lewis, director of the East Asia Nonproliferation Program at the James Martin Center for Nonproliferation, 8/1/12, It's Not as Easy as 1-2-3, www.foreignpolicy.com/articles/2012/08/01/it\_s\_not\_as\_easy\_as\_1\_2\_3?page=full

Creating market incentives to discourage the spread of enrichment and reprocessing seems like a reasonable thing to do - **except that most states make nuclear decisions on something other than a cost basis**. Nuclear power enthusiasts have been no strangers to wishful thinking, starting with claims that nuclear energy would be "too cheap to meter." Government decisions about nuclear power tend to **prioritize** concerns about **sovereignty** and keeping technological pace with neighbors. It is not hard to see national nuclear programs as something akin to national airlines - money-losing prestige projects that barely take market forces into account. Often, aspiring nuclear states look to countries like the United States and Japan as models. If such countries invest heavily in fuel-cycle services, developing states might **try to copy** them **rather than** simply **become** their **customers**.

#### Technology doesn’t equate to non-proliferation – political considerations outweigh

Feiveson 1 (Harold, currently serves as the Secretary-Treasurer of the Federation of American Scientists Council and is a Senior Research Policy Scientist of the Program on Science and Global Security at Princeton University. “The Search for Proliferation-Resistant Nuclear Power” http://www.fas.org/faspir/2001/v54n5/nuclear.htm )

It should be recognized straight away that many in the nuclear industry worldwide believe that intrinsic or technical proliferation resistance should not be given much attention in the development of nuclear power. Their arguments are several. For example: Proliferation is manifestly a political problem. Therefore, it is counterproductive to impose technical constraints on the development of nuclear power except in a few problem countries, such as Iraq and North Korea. If countries are determined to obtain nuclear weapons they can do so most directly via a dedicated program and not through civil nuclear power. Institutional constraints - that is, the entire nonproliferation regime defined by the NPT, safeguards agreements, supplier agreements, etc. � are adequate and could be improved further without imposing technical constraints on nuclear power. The shape of technology, international politics, and ways people think about weapons of mass destruction are impossible to gauge over the long term. Indeed, nuclear weapons may in the future be far less a matter of concern than other weapons of mass destruction. Therefore, we cannot sensibly attempt today to design a proliferation-resistant nuclear future for the long term. In practice, it will be extraordinarily difficult to contrive an effective proliferation- resistant nuclear fuel cycle for sophisticated states, and difficult even to do so for unsophisticated states. To a point, there is merit in all of these arguments, and taken together they underscore the truth that the civilian nuclear fuel cycle is only a part, possibly even a small part, of the greater problem of addressing the proliferation of nuclear weapons and other weapons of mass destruction.

#### The US will not exercise leadership

Henry Sokolski, executive director of the Nonproliferation Policy Education Center, 2/7/12, Obama's Nuclear Mistake, www.nationalreview.com/blogs/print/290330

What prompted Obama to kick this political nest? A stunning inattention to nuclear-export realities, his own nuclear-control rhetoric, and history.

In 2008, President Bush negotiated a nuclear-cooperative agreement with the United Arab Emirates (UAE). This agreement featured two new and important nonproliferation conditions. The first required the UAE to forswear making nuclear fuel — a process that can bring states to the very brink of acquiring bombs. The second stipulated that the UAE must open its nuclear facilities to intrusive nuclear inspections authorized under a special international understanding known as the Additional Protocol. While it negotiated this agreement with the UAE, the Bush administration also peddled its new, tougher conditions to existing and prospective U.S. civilian-nuclear-technology recipients, including Jordan, Egypt, Indonesia, Saudi Arabia, and Vietnam.

Initially, this effort enjoyed President Obama’s support after he succeeded Bush: He put the final touches on the UAE deal and in 2009 sold it as the new nonproliferation “Gold Standard” for future civilian nuclear-cooperation deals. After a year’s effort trying to get Jordan, Vietnam, and South Korea to forswear making nuclear fuel, though, Team Obama started to go wobbly.

First, in the late summer of 2010, Secretary of State Hillary Clinton announced that the U.S. had initialed a nuclear deal with Vietnam that lacked the Gold Standard conditions. The Hill went nuts. Letters were sent to the secretary of state, and State quietly put the Vietnam agreement on ice while the National Security Council ordered an interagency policy review. Deputy Secretary of State James Steinberg, who wanted to uphold the standard, fought Deputy Secretary of Energy Daniel Poneman, who did not. Nothing was decided.

Then, in July of 2011, Steinberg left the government. In short order, Poneman prevailed over remaining resistance within State. Late last year, State resumed nuclear cooperation talks with Vietnam. Anxious to notify the Hill, as required by law, Undersecretary of State Eileen Tauscher and Deputy Secretary Poneman tried to arrange a private, classified briefing with the House and Senate foreign-affairs committee chairmen and ranking members. But all the important members were out of town. So instead, the two officials sent them a short note.

It was a knee-slapper. First, it said the administration had decided that pushing the Bush administration’s Gold Standard would actually risk undermining nuclear nonproliferation. “We are concerned,” Tauscher and Poneman argued, that pushing this standard would “reduce[ ] the number of future U.S. partners, minimizing our nonproliferation influence.”

Second, they noted that “France and Russia in particular are very aggressive in pursuing nuclear business,” that “neither imposes enrichment or reprocessing conditions in their agreements,” and that for every billion dollars of exports, the U.S. is able to support 10,000 jobs. So, if we want jobs, we have to back off pushing nuclear nonproliferation? That seems to be the letter’s conclusion. Yet it’s unclear if there are any significant U.S. reactor exports to be made, or any truly American vendors to make them. Nearly 80 percent of Westinghouse’s nuclear division is now Japanese- and Kazakhstani-owned; roughly half of General Electric’s is Japanese-owned. As for nuclear manufacturing, nearly all of that is now done overseas. Also, the Fukushima tsunami disaster has endangered whatever U.S. nuclear reactor or component exports might otherwise be left. Certainly prospective foreign customers have been loath to forswear suing U.S. nuclear firms in the case of a nuclear accident. Yet without such a pledge, U.S. vendors will not sell. The letter’s most egregious error, though, is its misreading of the nuclear market. Contrary to the two officials’ suggestion, the most profitable nuclear sales prospect is not overseas reactors, where profit margins can be negative. Instead, it’s supplying nuclear fuel to run the U.S.’s 104 power reactors, the world’s largest fleet. Russia and France are eager to penetrate this market. France is building a $4.8 billion fuel-fabrication plant in Georgia for the U.S. Department of Energy and has secured a $2 billion conditional federal loan guarantee to enrich uranium in Idaho. Russia would like to establish a similar U.S. enrichment project. Bottom line: If the U.S. wants to make a nuclear buck, doing so while maintaining nonproliferation standards depends far less on what other nuclear suppliers are doing overseas than those foreign suppliers’ export profits depend on securing U.S. taxpayer funds and loan guarantees.

So far, however, Team Obama has avoided exploiting this leverage. Impatient, the House Committee on Foreign Affairs has reported out a bill (H.R. 1280) to push the Gold Standard by increasing congressional oversight over U.S. civilian nuclear-cooperative agreements. The Senate has yet to act.

#### Prolif

#### Proliferation is stable and solves conflict – history proves

Dratler 10 (Jay, Goodyear Professor of Intellectual Property, Emeritus Ph.D. degrees in physics from the University of California (San Diego), and a J.D. degree from Harvard Law School, where he was articles editor of the Harvard Law Review. “The Case for Nuclear Proliferation” <http://jaydiatribe.blogspot.com/2010/04/case-for-nuclear-proliferation.html>)

**The strongest argument for nuclear proliferation is** not speculation, but history**. Since the first and only use of nuclear weapons** (against Japan in 1945), **no one has invaded a country that had them,** with the possible exception of Israel. **Besides brief border skirmishes, all significant armed conflicts since 1945 but one have involved nuclear haves fighting in nuclear have-nots**, or have-nots fighting among themselves. Here’s the list: 1947: India (have-not) and Pakistan (have-not) over partition and Kashmir (have not) 1950-53: North Korea (have-not) in South Korea (have-not) 1950-53: US (have) and allies in South Korea (have-not) against North Korea (have-not) and China (have) 1950-53: China (have) in North Korea (have-not) and South Korea (have-not) against US (have) 1954-63: France (have) in Indochina (have-not) 1965: India (have-not) in Pakistan (have-not) over Kashmir (have-not) 1967: Soviet Union (have) in Hungary (have-not) 1968: Soviet Union (have) in Czechoslovakia (have-not) 1971: India (have-not) in Pakistan (have-not), creating Bangladesh (have-not) 1964-75: US (have) in Vietnam (have-not) 1979-89: Soviet Union (have) in Afghanistan (have-not) 1982: UK (have) in Falklands (have-not) against Argentina (have-not) 1983: US (have) in Grenada (have-not) 1989: US (have) in Panama (have-not) 1991: US (have) in Iraq (have-not) (Operation Desert Storm) 1995: US (have) and NATO (have) in bombing campaign in Bosnia and Kosovo (have-nots) 2001-present: US (have) in Iraq (have-not) (Operation Iraqi Freedom) 2001-present: US (have) in Afghanistan (have-not) 2008: Russia (have) in Georgia (have-not) [Other colonial actions, which involved haves against colonized have-nots, are not listed. Nor are civil wars and conflicts in Africa, all of whose nations are nuclear have-nots.] **The only exception** known to me **is Pakistan’s brief invasion of India** (in 1999, over Kashmir, as usual). That invasion occurred when both nations had nuclear weapons. But India’s strong conventional response and enormous international pressure stopped it. Other possible but unproven exceptions involved foreign invasions of Israel in 1967 and 1973, when Israel may have had nuclear weapons but, if it did, didn’t reveal or use them. The conclusion that follows from this list in inescapable. Since the development of nuclear weapons, major powers possessing them (except for India and Pakistan) were too prudent or too civilized to make war among themselves. **The unbroken record of military carnage that had preoccupied and devastated Eurasia and most of the “civilized” world for the previous two centuries stopped in its tracks**. But **the record of carnage continued in smaller countries lacking nuclear weapons**, either because they fought among themselves, or (more often) because they were invaded or fought over by nuclear powers. Looking at these data, **an unbiased observer has to conclude that nuclear weapons, with their unthinkable potential consequences, don’t cause wars.** They prevent them**.** The destructive power of nuclear weapons is war’s reductio ad absurdum. It demonstrates graphically how pointless, senseless and useless war is. That is a lesson that Europe and the rest of the world should have learned (but didn’t) from World War I, a serious attempt at mutual genocide that accomplished absolutely nothing. Better late than never.

#### Even “rogue states” won’t cause conflict with nukes

Dratler 10 (Jay, Goodyear Professor of Intellectual Property, Emeritus Ph.D. degrees in physics from the University of California (San Diego), and a J.D. degree from Harvard Law School, where he was articles editor of the Harvard Law Review. “The Case for Nuclear Proliferation” <http://jaydiatribe.blogspot.com/2010/04/case-for-nuclear-proliferation.html>)

Rogue Regimes After terrorists and crazies, **rogue regimes are the next strongest argument against nuclear proliferation**. **What would happen, conventional wisdom screams, if a terrible tyrant got nuclear weapons**? Conventional wisdom acts as if this question highlights a mere hypothetical future peril. But it doesn’t. Terrible tyrants have had and have nuclear weapons, and nothing extraordinary has happened. With the possible exception of Hitler, **Stalin was the worst** tyrant in human history. He was certainly the most paranoid. Yet he had nuclear weapons for four years before he died. **He didn’t use them**. Nor did his Soviet successors. **North Korea’s Kim Jong Il is every bit as paranoid as Stalin and far more prone to making idle external threats. Yet he has done nothing rash** and is unlikely to do so. Why? Because he knows that a single 50-megaton thermonuclear bomb could erase Pyongyang and his regime forever, even if he and a few select leaders managed to survive in some deep bunker. He also knows that his four-million-strong starving army is no proof against the atom’s awesome power. So Kim waits and occasionally blusters. Waits for what? If he or his minions have any semblance of wisdom, they will exploit the reduction in paranoia that their small nuclear arsenal permits and begin improving their civilian economy. If and as that happens, the long-suffering North Korean people will begin a gradual and painful climb toward a better life. It may take decades. It may take a century. But eventually **cooler and wiser heads will prevail amidst the stalemate of multilateral nuclear deterrence. Conventional wisdom acts as if there were some easy external “solution” to localized tyrannies,** if only they didn’t have nuclear weapons. But **history reveals that view as nonsense**. The Castro brothers, Kim, and Mugabe have been around for decades. They are all likely to die peacefully, of old age. No external force seriously challenged them during their (and Kim’s father’s) long reigns. No external force seriously challenges them now although only Kim has an arguable nuclear deterrent. What would change if each of them had a small nuclear arsenal? Their countries are small enough to be easy subjects for others’ nuclear deterrence. **A few missiles could literally annihilate their entire nations. The only real difference a small nuclear arsenal might make would be giving the lie to the paranoid fear of foreign invasion that they use to keep their own people’s aspirations in check**. The proof of the pudding is Iraq. Part of our justification for invading was removing the tyrant Saddam. That wasn’t the main reason; Israel and oil were. But never mind. It was a reason with which every supporter of the war—left or right—(including me, before the blunders started) could agree. Soon we will have spent well over a trillion dollars in direct and indirect costs. We will have suffered over 4,000 dead and 30,000 wounded to remove a tyrant who we thought had weapons of mass destruction but didn’t. That expense and the enormous economic drain of two wars are among the principal reasons for our national decline. With our sad example in mind, the rest of the world is unlikely to challenge local tyrants by conventional invasion for a century, if ever. Certainly the world’s most rapidly rising power (China) will not. And we have found it like pulling teeth to get our NATO allies to contribute to the supposedly agreeable mission of fighting the tyrannical Taliban in Afghanistan. So the notion that rogue regimes would be more susceptible to external “regime change” without than with nuclear weapons is sheer fantasy. **The notion that local tyrants would commit personal and national suicide by starting a nuclear war is equally absurd.** The Castro brothers, Kim Jong Il, and Robert Mugabe will die peaceably of old age, and their successors will change their policies. **Or their smarter underlings or people will remove them. It is impossible to foresee, let alone predict, that their possession of nuclear weapons would make any difference at all**. The only difference it might make is assuaging their paranoia enough to let them spend less on tools of war and more on their people, if only to improve the chances of their regimes’ survival against mutiny or popular revolt.

#### 2. And no incentive to strike first – risk of failure

Waltz 2k—Kenneth, pol sci prof at Berkeley (Georgetown Journal of International Affairs, Volume 1, Number 1, Winter/Spring 2000, Interviewed by Jeremy Goldberg & Parag Khanna “Interview: Is Kenneth Waltz Still M.A.D. about Nukes?”, <http://www.ciaonet.org/olj/gjia/gjia_winspr00f.html>)

Proximity also does not mean vulnerability. **Every country has enough space to move its weapons around; in order for me to believe that your force is vulnerable and consider a preemptive attack, I have to convince myself that I know exactly how many deliverable nuclear weapons you have. So if I think you have twelve weapons, I’ve got to know you don’t have a couple more**. I’ve got to be sure that’s the number. And if I persuade myself that you have twelve and no more, I have to know where they are, and I have to be sure that you do not move them by the time I decide to attack. It’s estimated by Herbert York, former director of Lawrence Livermore National Laboratories, that a country making a relatively crude nuclear warhead would be able to make one weighing less than a ton–small enough to place in a van and move around. Journal Some military analysts would contend that India’s conventional superiority makes Pakistan’s nuclear capability vulnerable, largely because Pakistan relies on its air capability to deliver weapons, and in a conventional war, its air capability could be destroyed very quickly. Could that development, with the implications on Pakistan’s inability to withstand a preemptive attack, possibly disrupt nuclear stability? Waltz You’ve got to be sure that in an attack, whether with nuclear weapons or conventional weapons, you’re attacking weapons. Now, it’s hard–nuclear weapons are small–to be sure that you’re going to destroy those weapons quickly and completely. With conventional weapons you at least have the illusion of control; that is, you can defend, you can delay, and you can exact a toll from the enemy. The ultimate question is whether you are going to win or lose. If you are fighting with nuclear weapons the issue is survival, not necessarily physically, but as a political entity. Military commanders are well aware of how many things can go wrong: failed intelligence, undetected warheads in an unexpected location. If Pakistan has two dozen nuclear weapons spread around and at least four or five India does not know about, is India going to attack and risk four or five warheads blowing up Indian cities? While the attack might not destroy India, what could be at stake that would be worth that price? It’s a risk to their regime, it’s a risk to rulers, and it’s a risk to the military. You don’t get much enthusiasm out of the military for fighting wars it’s going to lose.

#### And empirics are on our side

Bzostek 5 (Rachel, PhD Candidate Pol. Sci. “WHY NOT PREEMPT? AN ANALYSIS OF THE IMPACT OF LEGAL AND NORMATIVE CONSTRAINTS ON THE USE OF ANTICIPATORY MILITARY ACTIVITIES ”, August, <http://etd.lsu.edu/docs/available/etd-06302005-104805/unrestricted/Bzostek_dis.pdf>)

Anticipatory Military Activities: Do States Preempt? While there are a plethora of different factors that could influence the likelihood of a state’s using anticipatory military activities, a few generalizations can be made. For one, it appears that uncertainty, which underlies most of the concepts discussed above, and is applicable to both the capabilities and the intentions of the adversary, tends to increase, at least hypothetically, the probability of a state using anticipatory military activities to deal with threats posed by an adversary. This is primarily due to the fact that states tend to expect the worst from their adversary. Or, in other words, as the adage goes, it’s better to be safe than sorry. But, is this actually the case? If uncertainty is truly as rampant and detrimental as many scholars suggest, and if taking anticipatory military action is seen as an effective tool for dealing with this uncertainty, one would expect to see states frequently employing these activities. But, as Reiter notes, for the most part states do not take anticipatory action. It is important to note that the absence of such actions does not necessarily imply a corresponding lack of uncertainty. To be sure, there are numerous different elements at play, all of which must be taken into consideration. However, it is also true that just as the influence of many of the international security concepts can be underestimated, they can also be overestimated, leaving a situation of partial understanding. In this respect, Chapters 6 through 8 seek to rectify at least part of this problem by integrating and including concepts from a variety of different sources, specifically, through adding legal and normative elements into the analysis. Several scholars have empirically tested various hypotheses about preemptive and preventive war using concepts and theories derived from the international security literature. While there is diversity vis-à-vis the explanatory variables used in these studies, there appears to be consensus with respect to the conclusions: states rarely use anticipatory military activities. Before discussing these conclusions, it is important to look at the different explanations and hypotheses tested in these studies.

3. New proliferators will build small arsenals – uniquely stable.

Seng, 1998

[Jordan, PhD Candidate in Pol. Sci. – U. Chicago, Dissertation, “STRATEGY FOR PANDORA'S CHILDREN: STABLE NUCLEAR PROLIFERATION AMONG MINOR STATES”, p.203-206]

However, this "state of affairs" is not as dangerous as it might seem. The nuclear arsenals of limited nuclear proliferators will be small and, consequently, the command and control organizations that manage chose arsenals will be small as well. The small arsenals of limited nuclear proliferators will mitigate against many of the dangers of the highly delegative, 'non-centralized' launch procedures Third World states are likely to use. This will happen in two main ways. First, only a small number of people need be involved in Third World command and control. The superpowers had tens of thousands of nuclear warheads and thousands of nuclear weapons personnel in a variety of deployments organized around numerous nuclear delivery platforms. A state that has, say, fifty nuclear weapons needs at most fifty launch operators and only a handful of group commanders. This has both quantitative and qualitative repercussions. Quantitatively, the very small number of people 'in the loop' greatly diminishes the statistical probability that accidents or human error will result in inappropriate nuclear launches. All else being equal, the chances of finding some guard asleep at some post increases with the number of guards and posts one has to cover. Qualitatively, small numbers makes it possible to centrally train operators, to screen and choose them with exceeding care, 7 and to keep each of them in direct contact with central authorities in times of crises. With very small control communities, there is no need for intermediary commanders. Important information and instructions can get out quickly and directly. Quality control of launch operators and operations is easier. In some part, at least, Third World states can compensate for their lack of sophisticated use-control technology with a more controlled selection of, and more extensive communication with, human operators. Secondly, and relatedly, Third World proliferators will not need to rely on cumbersome standard operating procedures to manage and launch their nuclear weapons. This is because the number of weapons will be so small, and also because the arsenals will be very simple in composition. Third World stares simply will not have that many weapons to keep track of. Third World states will not have the great variety of delivery platforms that the superpowers had (various ballistic missiles, cruise missiles, long range bombers, fighter bombers, missile submarines, nuclear armed ships, nuclear mortars, etc., etc.), or the great number and variety of basing options, and they will not employ the complicated strategies of international basing that the superpowers used. The small and simple arsenals of Third World proliferators will not require highly complex systems to coordinate nuclear activities. This creates two specific organizational advantages. One, small organizations, even if they do rely to some extent of standard operating procedures, can be flexible in times of crisis. As we have discussed, the essential problem of standard operating procedures in nuclear launch processes is that the full range if possible strategic developments cannot be predicted and specified before the fact, and thus responses to them cannot be standardized fully. An unexpected event can lead to 'mismatched' and inappropriate organizational reactions. In complex and extensive command and control organizations, standard operating procedures coordinate great numbers of people at numerous levels of command structure in a great multiplicity of places. If an unexpected event triggers operating procedures leading to what would be an inappropriate nuclear launch, it would be very difficult for central commanders to “get the word out' to everyone involved. The coordination needed to stop launch activity would be at least as complicated as the coordination needed to initiate it, and, depending on the speed of launch processes, there may be less time to accomplish it. However, the small numbers of people involved in nuclear launches and the simplicity of arsenals will make it far easier for Third World leaders to 'get the word out' and reverse launch procedures if necessary. Again, so few will be the numbers of weapons that all launch operators could be contacted directly by central leaders. The programmed triggers of standard operating procedures can be passed over in favor of unscripted, flexible responses based on a limited number of human-to-human communications and confirmations. Two, the smallness and simplicity of Third World command and control organizations will make it easier for leaders to keep track of everything that is going on at any given moment. One of the great dangers of complex organizational procedures is that once one organizational event is triggered—once an alarm is sounded and a programmed response is made—other branches of the organization are likely to be affected as well. This is what Charles Perrow refers to as interactive complexity, 8 and it has been a mainstay in organizational critiques of nuclear command and control s ystems.9 The more complex the organization is, the more likely these secondary effects are, and the less likely they are to be foreseen, noticed, and well-managed. So, for instance, an American commander that gives the order to scramble nuclear bombers over the U.S. as a defensive measure may find that he has unwittingly given the order to scramble bombers in Europe as well. A recall order to the American bombers may overlook the European theater, and nuclear misuse could result. However, when numbers of nuclear weapons can be measured in the dozens rather than the hundreds or thousands, and when deployment of those weapons does not involve multiple theaters and forward based delivery vehicles of numerous types, tight coupling is unlikely to cause unforeseen and unnoticeable organizational events. Other things being equal, it is just a lot easier to know all of what is going on. In short, while Third World states may nor have the electronic use-control devices that help ensure that peripheral commanders do nor 'get out of control,' they have other advantages that make the challenge of centralized control easier than it was for the superpowers. The small numbers of personnel and organizational simplicity of launch bureaucracies means that even if a few more people have their fingers on the button than in the case of the superpowers, there will be less of a chance that weapons will be launched without a definite, informed and unambiguous decision to press that button.

#### Yes they will build small arsenals, fallout fear economic constraints, opacity

#### Seng, 1998

[Jordan, PhD Candidate in Pol. Sci. – U. Chicago, Dissertation, “STRATEGY FOR PANDORA'S CHILDREN: STABLE NUCLEAR PROLIFERATION AMONG MINOR STATES”, p.56-57]

Kenneth Waltz argues that leaders in all new nuclear states will build only small arsenals. His claim rests primarily on the assumption that all new nuclear states will believe they only need to threaten adversaries with the destruction of one or two cities to ensure stable deterrence, and that they subsequently will be reluctant to dedicate massive resources to building large nuclear arsenals.' My claim is less broad, and it concerns only stares in the developing world. I argue that conditions in the developing world are such that whether leaders think they need to be able to destroy only one city or believe they should have the capability to achieve complete societal destruction of an adversary, they very likely will judge that only very small nuclear arsenals are needed for the job. Moreover, because conditions are such that arsenal buildups will exact high economic, political and security costs on developing states, it is very unlikely they will build more weapons than they believe they need. What follows is an examination of the specific conditions on which these claims are based. There are five main reasons to expect small arsenals among nuclear states in the developing world. They include 1) the limited number of targets developing states will have to worry about, 2) fears concerning 'regional suicide' through nuclear fallout, 3) economic constraints related to nuclear production and military budgets, 4) the specific manner in which developing states reap political rewards and prestige from nuclear weapons development, and 5) the requirements of keeping nuclear arsenals opaque. These factors can carry a cumulative weight in developing state proliferators, which is to say that their cumulative effect may serve to constrain arsenal buildup when the individual effect of any one of them may not be sufficient. They also reinforce each other in important ways, meaning that if policymakers recognize the existence of one or some of the conditions they are likely to recognize most or all of them, and thus their cumulative weight is likely CO be felt. Not all the factors discussed here will apply to all proliferators and potential proliferators in the developing world; however, it is not necessary that they do. It is simply necessary that enough of the factors apply, or that one of them applies strongly enough, to generate the essential constraining effects. This is very likely to be the case in all developing world situations.

#### Kagan’s arguments are logically flawed and unproven.

Preble 2012

Christopher Preble, vice president for defense and foreign-policy studies at the Cato Institute, The Critique of Pure Kagan, The National Interest July/August 2012, http://nationalinterest.org/bookreview/the-critique-pure-kagan-7061?page=1

Kagan’s too-casual rejection of any reasonable alternative to American hegemony reveals the crucial flaw in his reasoning, however, given that he predicts we might not be afforded a choice in the future. If the United States can’t sustain its current posture indefinitely, a wiser long-term grand strategy would set about—preferably now—easing the difficult and sometimes dangerous transitions that often characterize major power shifts. Rather than continuing to discourage other countries from tending to their security affairs, the United States should welcome such behavior. Kagan’s reassuring tone—about China’s unique vulnerabilities, for example—actually buttresses that competing point of view. After all, if a distant, distracted hegemon like the United States can manage the challenge posed by China, and if it can do so while preventing wars and unrest in several other regions simultaneously, then Asian nations would be at least equally capable of accomplishing the same task given that they will be focused solely on their own security primarily in just that one region. KAGAN REFUSES to consider this possibility. He writes that the “most important features of today’s world—the great spread of democracy, the prosperity, the prolonged great-power peace—have depended directly and indirectly on power and influence exercised by the United States.” It follows, therefore, that the world would become considerably less democratic, less prosperous and less peaceful if the United States were to withdraw militarily from Europe, Asia and the Middle East. Of course, he can’t actually prove either claim to be true, and he concedes as much. Instead, he bases his case on a particular set of beliefs about how the world works and about the United States’ unique characteristics within that system. Kagan asserts that the world requires a single, order-inducing hegemon to enforce the rules of the game and that America must perform this role because its global economic interests demand it. He also believes that the United States has a special obligation, deriving from its heritage as a “dangerous nation,” to spread democracy and human rights. What’s more, America’s military might is the essential ingredient that leads to its international influence. The spread of democracy and market capitalism, Kagan claims, is made possible by U.S. power but would retreat before autocracy and mercantilism if that power were seen to be waning. The attractiveness of America’s culture, economics and political system—the vaunted “soft power” in Joseph Nye’s telling—is fleeting and would dissipate if Americans were to commit what Kagan calls “preemptive superpower suicide.” How other nations respond to U.S. power also follows a familiar pattern. In Kagan’s telling, allies will bandwagon with us if we are committed to defending them but bolt like frightened racehorses at the first sign of trouble. Would-be challengers will back down in the face of U.S. power but rush to exploit opportunities for conquest if Uncle Sam exhibits any hesitation or self-doubt. And Kagan simply dismisses any suggestion that other countries might chafe at American dominance or fear American power. His ideas represent something close to the reigning orthodoxy in Washington today and for the past two decades. Inside the Beltway, there is broad, bipartisan agreement on the basic parameters of U.S. foreign policy that Kagan spells out. This consensus contends that the burden of proof is on those who argue against the status quo. The United States and the world have enjoyed an unprecedented stretch of security and prosperity; it would be the height of folly, the foreign-policy establishment asserts, to upend the current structure on the assumption that an alternative approach would represent any improvement. But such arguments combine the most elementary of post hoc fallacies with unwarranted assumptions and idle speculation. Correlation does not prove causation. There are many factors that could explain the relative peace of the past half century. Kagan surveys them all—including economic interdependence, evolving norms governing the use of force and the existence of nuclear weapons—and concludes that U.S. power is the only decisive one. But, once again, he concedes that he cannot prove it.

## 2NC

### 2nc at: “floating pics bad”

#### ---No link --- Not a floating pic --- The alternative applies a much stricter standard for the assessment of nuclear safety meaning we likely give out fewer permits than the affirmative and exclude part of the plan.

#### Defense----

#### a.) they got infinite prep to construct the 1ac’s narrative, if they can’t defend how they made it they should lose

#### b.) they should be able to generate solvency deficits---based on defenses of how they presented the 1ac, the specificity of the link proves this is discussed in the lit.

#### Offense---

#### a.) Advocacy Skills: assuming that we should just debate about the meat of the policy and not its nitty gritty processes cedes decisions of implementation to policy elites who will manipulate the plan--- that’s Carper

#### b.) Dissenting academia: don’t have to disagree with the whole 1ac, forces bad argument practices, making us NEVER agree with them produces stasis and inaction, we become the 112 congress, motionless due to forced dissent.

#### c.) their interp exludes all pics, which are key to creating better research practices, they force debaters into the core of affs and lit.

#### ---At worst reject the alternative and you still vote negative on our case turns and external link scenarios.

### 2nc alt

#### Nuclear reactors should be evaluated on a case by case basis instead of endorsed by a universal technological design under the assumption it can solve our problems, the Colbert evidence cites a nuclear physicist and says this framing recognizes reactors complexity and thus their capability to fail as opposed to the affs bright eyed optimism that nuclear will assuredly work and solve extinction.

#### we solve all of their offense, the only way they can get offense is by winning the SMRs should be displayed as a one technology from a design, they have to defend the assembly line method, they can’t the only reactors we exclude would have been bad any way.

### 2nc fw

#### ---Framework is not responsive --- All of our evidence is specific to the effects of nuclear policy framing on how it effects policy implementation. Excluding our argument based off ‘policymaking education’ is incoherent since Carper and Schmid indicate the issue of framing for Small Modular Reactors is the key policy issue in deciding NRC licensing.

#### ---The roll of the ballot is to vote for the team who best presents a method for assessing and implementing nuclear power. This solves their affirmative ground and limits claims, if they cannot defend their method of increasing production they deserve to lose.

#### ---Advocacy is a key question---nuclear powers largest problem has never been the technology, rather convincing people it should be deployed, forcing the aff to be more persuasive nuclear advocates is the best and most relevant portable skill they can gain from the debate

#### ---Representations define nuclear policy making --- describing SMR’s as an ever safe technology makes bearcats select less qualified personal, spend less on unkeep and suverallience beause they have been taught to believe by public debates its something they need not worry about---that’s Carper, while representations may not shape most policies SMRs are a huge exception, the technology has yet to be finished so the stories we tell greatly influence how they are constructed.

#### ---Framing determines policy effectiveness --- 90% of policy errors emerge from the flawed and deterministic lens of security.

Lowth 2011

Colonel R. G., British Army, ‘Securitization’ and its effect on Strategic Thinking, SEAFORD HOUSE PAPER, Royal Defense Studies

A frame is ‘a perspective from which a problematic situation can be made sense of’.4 Framing sets a particular context. It shapes perceptions, and influences thinking and behaviour (Haider-Markel et al, 2006; Bradley, 2011).5 The re-framing of issues (ie. ‘reinterpreting their meaning and re-perceiving the situation’ (ibid)) is also potentially transformative.6 Much mistaken thinking and associated flawed behaviour is attributed, with authority, to mis-perception: ‘Around 90% of errors in thinking ... arise from errors of perception (Carr, 2010:5).7 Indeed some afford perceptions not just a primary but an exclusive explanatory role: ‘Perception is all there is’ (Peters and Austin, 1994:71). The ways in which problems are articulated and interpreted, in terms of their essential ‘form or origin’, fundamentally affects the strategies developed to resolve them (Goffman, 1986:10). The process of framing influences strategic thinking because it shapes a priori understanding, organisation and explanation: ‘Problems arise as much from the meaning that people involved give them as from the facts of the situation’ (Martin, 2002:28). Framed thinking is inherently convergent, focused and directed as if by a lens, but the process is neither objective nor universal; it varies between individuals and communities, and alters over time. Framing involves (re)definition. Words are critical and their impact, albeit invariably subconscious, can be profound: ‘There is nothing outside the text’ (Derrida, 1976:158). The cognitive linguist George Lakoff challenged his students not to think of an elephant – but none could avoid doing so. The word alone created an irresistible frame: Every word, like elephant, evokes a frame, which can be an image or other kinds of knowledge ... the word is defined relative to that frame (Lakoff, 2004:3). Framing is more than just associative, however; it also tends to be partial: When the word tax is added to relief, the result is a metaphor: Taxation is an affliction, the person who takes it away is a hero, and anyone who tries to stop him is a bad guy. This is a frame ... made up of ideas, like affliction and hero (ibid). Moreover, framing – as a form of linguistic construction – can be purposefully partial: Framing is about language that fits your worldview, [but] it is not just language. Ideas are primary — and the language carries those ideas, evokes those ideas (ibid). The language of security is similarly evocative, partial and inherently political. The theory of securitization within international relations – the use of the term ‘security’ to elevate an issue above and beyond normal politics – is remarkably similar to that of framing: The distinguishing feature of securitization is a specific rhetorical structure ... the staging of existential issues as of supreme priority. The process ... a speech-act ... causes the actor to operate in a different mode than he would have otherwise (Buzan et al, 1998:26,30). Both the generic process of framing and the specific example of securitization: ‘construct discourses through which the world comes to be perceived’ (Henry, 2002:68). They are both potentially powerful forms of sense-making. And yet, curiously, the two are seldom connected explicitly.8 Debates about securitisation are conducted within the milieu of security studies; they tend to focus on how issues become characterised as threats, rather than on the ramifications. Those concerned about framing, on the other hand, operating principally within psychology and its fields of application (behavioural sciences, sociology, media studies etc) tend to address much more keenly the cognitive implications, especially the creation of alternative world views, the colouring of perceptions, and associated influences on decision-making. This paper draws upon both fields of research to explore the framing effect of securitization on strategic thinking.9 Starting from the premise that: ‘By saying the word [security], something is done’ (Wæver, 1995:55), it is argued that: − (A part of) what securitization – as a form of discourse – ‘does’, is frame − In the context of strategy, this matters (so strategists should be aware). thinking. − A conscious process of de-securitization can re-frame thinking (with potentially beneficial results). The increasing breadth of affairs portrayed as ‘security issues’ – food, water, the environment, as well as energy – makes it imperative, in an ‘era of security obsessionism’ (Charrett, 2009:11), for policy makers and strategists to appreciate the cognitive influence of securitization. However, while both framing and securitization are periodically characterised as negative, this dissertation makes no such judgment – either in general, or in relation to European energy supply. The intention here is to demonstrate instead that securitization does frame strategic thinking, and that this matters: ‘Designating an issue as a matter of security is not just a theoretical question but caries ‘real-world’ significance’ (Hough, 2004:14).

#### ---Energy policy scenario planning disconnects us from the realities of status quo consumption and distracts from material change.

Sumrell & Varnelis 2009

Robert, production designer, educator, writer & teaches at the Columbia University Graduate School of Architecture, Planning, and Preservation, Kazys, Director of the Network Architecture Lab at the Columbia University Graduate School of Architecture, Planning, and Preservation, Personal Lubricants: Shell Oil and Scenario Planning, New Geographies 2: Landscapes of Energy, pg 131-132

Scenario planning does not focus on the future but rather on the present. Peak oil, global warming, and the fragility of speculative bubbles are imminent threats. But the massive capital already invested by companies like Shell in existing infrastructure makes it impossible for them to abandon standard industry practices, even if they know that the consequences of business as usual will be dire once things hit a tipping point. Like fairy tales, scenarios present carefully crafted stories that indirectly illustrate the dangers of the world to an audience that isn't ready for them. They allow us to prepare for the future, even if we feel powerless against the forces of the world around us, by providing a context for speaking about the unspeakable. The lessons of fairy tales are gentle and distant, they may only make sense later, when the codified dangers from the stories appear in reality. This helps preserve a childlike naiveté and enables the continued drive toward pleasure in the face of fear and doubt. As Bruno Bettelheim wrote: "The figures and events of fairy tales also personify and illustrate inner conflicts, but they suggest ever so subtly how these conflicts may be solved, and what the next steps in the development toward a higher humanity might be. The fairy tale is presented in a simple, homely way; no demands are made on the listener. This prevents even the smallest child from feeling compelled to act in specific ways, and he is never made to feel inferior. Far from making demands, the fairy tale reassures, gives hope for the future, and holds out the promise of a happy ending." By providing a forum where fear and anxiety can both be discussed, fairy tales provide listeners with a sense of importance, even if they do not yet have agency.46 ln Beyond the Pleasure Principle, Sigmund Freud hypothesized that since organisms come into being from a plenum of inanimate matter, they carry with them the death drive or "pleasure principle” a desire to return to this undifferentiated state. lf, however, the organism responds with an "influx of fresh amounts of stimulus" through a traumatic event, it can awake again and go on living or, if the stimulus is strong enough, reproduce.4T In this light, scenario planning functions more as a rhetorical device and therapy than as a method of planning or accurate forecast. The shock of the actual event is necessary to allow change to occur. But scenario planning allows participants to continue playing even though they know better. Like psychoanalysis, there is no end or goal to the process of gaming; its value is the sensation that comes from playing the game.

### 2nc impact d

#### Second link---technological manipulation, framing nuclear power as having the potential of being perfectly controllable makes extinction inevitable

Kovel 1984

Joel, The Culture of Technocracy, Against the State of Nuclear Terror, pg 107, http://www.colorado.edu/ReligiousStudies/chernus/4820-ColdWarCulture/Readings/AgainstTheStateOfNuclearTerror.pdf

Nuclear weaponry is not just an aberration but the logical result of an entire attitude toward the world. This becomes even clearer when we consider the intermediate stage comprised by the saga of industrial and commercial nuclear power .21 Again, it would be too far afield to consider this story in any detail. But its bare essentials should be pointed out. The nuclear industry arose as a twofold effort to turn the discovery of nuclear technology to the further advantage of the ruling system of power-two lines of approach that have been, we might add, frequently combined in the history of capitalist society. One was to make the whole business of destruction seem legitimate and benign: hence arose "atoms for peace" as a handy slogan to temper the brutal reality of the technology. And the other was the irresistible impulse to turn a profit by squeezing the new source of power into the shape of a commodity-by boiling water with it and using the steam to generate electricity, which could of course be sold. The grim story of this venture need not be recounted here. But it is worth re-emphasizing that the failings of nuclear power arose out of the peculiar delusion that any and all parts of nature could be tamed by the human master. Thus, just as the unimaginable ferocity of nuclear weapons breaks down the political ends served by the use of technology in warfare, so does the malignancy of uncontrolled radioactivity make a mockery of the fantasy that there are no limits to the sources of commodities and profits. And as nuclear weapons continue to proliferate, while plutonium accumulates in reactors, we face the breakdown of "atoms for peace." It appears inevitable that the proposed U.S. build-up must draw on spent reactor fuel. Meanwhile, the nuclear power industry itself becomes militarized, in large measure because of the tre-mendous risks associated with its source of energy. A good example of this is the recently disclosed fact that U.S. Army Green Berets have been stationed at nuclear power plants, ostensibly to check on whether these leviathans are vulnerable to sabotage .22 Thus the two lines of nuclear development find each other once more contributing to the heightening of nuclear terror but also to the dissolution of one of its stage props. As we have noted, the triumph of the economic means the triumph of the principle of exchange as the guiding standard of human reason. Roughly put, this means making the whole world into a market, where everything has its price, a monetary value through which it can be equated, and so exchanged, 1 with anything else. The exchange principle makes the rule of the economic sphere coincide with the rule of money. The other side of the principle of exchange is the loss of what is unique and cannot be exchanged. As capitalist economics rose, the sacred was lost. Out of this loss arose the unchecked power of the rationalized market mentality. The mentality of the market is but the economic form of technocratic rationalization. The same animal goes under different names depending on its habitat 23 -market mentality, technocratic rationalization, instrumental reason (as a general philosophical category), positivism (as a philosophy of science), or pragmatism (as an ethical code of conduct). If we emphasize technocracy here, it is because it is the form of the animal most closely implicated with the nuclear crisis. All of the forms, however, are variations on the exchange principle and the stripping of value from the boundary between humanity and nature. Since there are no bounds to what this mentality thinks it can do with the principle of exchange, the way is left open for the nuclear power industry and the making of nuclear weapons. But the principle also implies the inevitable use of the bomb, since its effects are deemed equivalent to something else, say, the intimidation of an adversary .24 Therefore, state managers have never really gone beyond a simple calculation of what advantage and what risk could be wrought by the use of nuclear weapons, and a weighing of the results in the balance of possible actions. Because of this attitude, there was never any serious question of whether or not to drop the bomb on Hiroshima.

### 2nc addonn

**Empirically, water doesn’t cause war**

**Lawfield 10** – Thomas Lawfield is an MA candidate at the University for Peace. Water Security: War or Peace? Thomas Lawfield May 03, 2010 http://www.monitor.upeace.org/innerpg.cfm?id\_article=715

In reality, water does not cause war. The arguments presented above, although correct in principle, have little purchase in empirical evidence. Indeed, as one author notes, there is only one case of a war where the formal declaration of war was over water.[20] This was an incident between two Mesopotamian city states, Lagash and Umma, over 2,500 years BC, in modern day southern Iraq. Both the initial premises and arguments of water war theorists have been brought into question. Given this, a number of areas of contestation have emerged: "Questioning both the supply and demand side of the water war argument [...] Questioning assumptions about the costs of water resources [...and] Demonstrating the cooperative potential of the water resource."[21] Why then is water not a cause of war? The answer lies in two factors: first, the capacity for adaptation to water stresses and, second, the political drawbacks to coupling water and conflict. First, there is no water crisis, or more correctly, there are a number of adaptation strategies that reduce stress on water resources and so make conflict less likely. Unlike the water war discourse, which perceives water as finite in the Malthusian sense, the capacity for adaptation to water stress has been greatly underestimated. For instance, I will discuss in particular a trading adaptation known as ‘virtual water’, which refers to the water used to grow imported food. This water can be subtracted from the total projected agricultural water needs of a state, and hence allows water scarce states to operate on a lower in-country water requirement than would otherwise be expected.[22] This means that regions of the world that are particularly rich in water produce water intense agricultural products more easily in the global trade system, while other water scarce areas produce low intensity products.[23] The scale of this water is significant - Allan famously pointed out that more embedded water flows into the Middle East in the form of grain than flows in the Nile.[24] In addition, there are significant problems around the hegemonic doctrine of the water crisis. Many authors point to relatively low water provision per capita by states, and suggest that this will increase the likelihood of a state engaging in war with a neighbouring state, to obtain the water necessary for its population. This is normally a conceptual leap that produces the incorrect corollary of conflict, but is also frequently a problem of data weaknesses around the per capita requirements. For instance, Stucki cites the case of the Palestinians being under the worst water stress, with a per capita provision being in the region of 165m³/year.[25] Unfortunately, such an analysis is based on false actual provision data in this region. Based on the authors work on water provision in Lebanese Palestinian refugee camps, the actual provision is over 90m³/month. Such a figure is highly likely to be representative of other camps in the region.[26] If this example is representative of trends to exaggerate water pressures in the region, then we should be sceptical about claims of increasing water stress. Furthermore, given that many water systems have a pipe leakage rate of fifty per cent, combined with a seventy per cent loss of agricultural water, significant efficiency enhancements could be made to existing infrastructure. Combined with desalination options in many water shortage prone states, there is an overall capacity for technological and market driven solutions to water scarcity.[27]

**Even if they win the war scenario, water isn’t the root cause – politics is
Lawfield 10** – Thomas Lawfield is an MA candidate at the University for Peace. Water Security: War or Peace? Thomas Lawfield May 03, 2010 http://www.monitor.upeace.org/innerpg.cfm?id\_article=715

Second, water wars are not caused by water, but rather an inability of politics. Barnett makes the case clear by arguing that water war would be a ‘failure of politics’ rather than the outcome of justified demands for essential resources.[28] In this way, it is not scarcity that is the driver in the Malthusian sense, but a political, and politicised issue. This is most noticeable where conflict occurs in areas where there are both political tensions and water resources challenges. For example, there are absurd and exaggerated claims of a linkage between Israel’s water management and surrounding states. In reality, conflict in this region is strongly influenced by political circumstance that speaks to a wider discourse around Israel’s position in the Near East. That environmental constraints and pressures are woven into wider discourses of politics is no indication that they are the cause of conflict, but rather more that they are an important contextual factor that may be mobilised for political reasons. For instance, in 2000 Lebanon started building a small pumping station on the Wazzani river which is used by downstream Israel. This rapidly became a media issue in Israel, probably due to the heightened security discourse surrounding water. Claims were made that the action was comparable to the 1964 diversion of the Hasbani, an Arab coalition move to harm the Israeli economy. However, the story diminished even faster than it emerged, when officials on both sides showed their dismay at the emerging media frenzy.[29] There are two key trends to note from this example: first, that wider discussions around water wars influence the articulation of war in reality, and second the water component of the conflict is not significant, rather it acts as a trigger for the utilisation of wider political narratives. In essence, water is merely a tool for political ends. Third, war over water is illogical. States are not inherently belligerent, but act in self interested, utility-maximising ways. Rather, they engage in conflict if they stand to gain more than they loose. In the case of water, the costs of military engagement far outweigh the costs of cooperative engagement. For instance, Baskin points out that it would cost more for Israel to engage in war for the water resources of the West Bank than it would to buy the equivalent of the West Banks aquifers from elsewhere.[30] Water war protagonists also present the weak argument that there is a unique situation in the Middle East of the possibility of state territories changing, with water related land grabs. ‘Victory may bring land that offers more resources – either water or oil.’[31] This is not the case. State territories have been extremely stable for over a hundred years – conflict that attempts to enlarge boundaries would problematise the very existence and legitimacy of the state itself. By contrast, if they stand to gain by establishing cooperative relationships with other states in the international system, they will. It is difficult to see how good water management, which frequently demands cooperation, can be conducted through the use of conflict. That said, there are incidences of water related conflict on the intrastate level. For instance, in summer 2000, clashes involving thousands of farmers and police occurred in the Huang He river basin, China over government policy changes that meant a local dam runoff would no longer supply irrigation water for farmers but instead be used for urbanisation. In addition, in Pakistan there have been clashes between farmers in Punjab and Sind province over control of the Indus. But these are not resource pressure issues – rather water acts as one of many other triggers in a wider problem of social injustice and political discourses.

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### 2NC Microgrids

#### ---The CP creates advanced microgrids that solve their islanding advantage-Extend our Defense Communities evidence-its cites a MIT Lincoln Laboratory study that says advanced mircogrids can allow bases to maintain critical missions if there is grid disruption

#### ---To be clear advanced microgrids have a number of features that solve all of their grid internal links-These include islanding the microgrid if the main grid is disrupted, securing critical loads during emergencies, and accelerating the use of renewable energy sources and energy efficiency.

Sater-Research Fellow at Global Green USA’s Security and Sustainability Office-11

Military Energy Security: Current Efforts and Future Solutions

http://globalgreen.org/docs/publication-185-1.pdf

Microgrid Definition A microgrid resembles the smart grid in many ways except on a smaller scale. For the purposes of this paper, a microgrid shall be able to perform the following functions: • Perform demand management during normal operating conditions • Island the microgrid from the main grid once an upstream fault is detected • Secure critical loads and shed non-critical loads according to the given priority list during emergencies • Resynchronize the microgrid to the main grid after an upstream fault is cleared • Optimally coordinate internal loads and distributed energy resources, including generation and storage devices, to address any operational, environmental, economic, or security constraints 24 Like the smart grid, a microgrid would improve energy efficiency and accelerate the integration of renewable energy sources. During normal operations, a microgrid acts no different than the smart grid. It increases energy efficiency by relying more heavily on non-continuous sources of power when they are available, such as wind and solar, and decreasing the use of generators or power from the civilian grid. Microgrids better manage energy use to avoid peak demand times when electricity is most expensive and can incorporate energy storage devices such as electric vehicles. If the microgrid detects a disruption in the civilian grid such as a blackout, the microgrid will isolate or “island” the facility from the main power grid. Once isolated, the microgrid will route power only to loads deemed critical, thus conserving fuel for the backup generators. If renewable energy options or battery backups are available, the microgrid will use energy from these sources to further conserve generator fuel. For example, if the civilian grid experiences a blackout during the day, a microgrid will draw power from solar photovoltaic arrays to run as many critical loads as possible, only turning on as many generators as are needed to meet the critical load demand.

Microgrid installation and capacity will grow 700 percent in the next few years---solves the case

Pike Research 9/16/11

Military Microgrid Capacity to Experience More than 700% Growth by 2017

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

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

Empirical data supports Microgrids ability to meet military demands and be implemented quickly

Sater-Research Fellow at Global Green USA’s Security and Sustainability Office-11

Military Energy Security: Current Efforts and Future Solutions

http://globalgreen.org/docs/publication-185-1.pdf

Microgrids

A microgrid consists of physical and cyber elements. The physical system is the distribution

circuits, electronic devices, and electricity generators (either renewable or conventional) and the

cyber system is the software that acts as the “central decision support unit.”

45 Saifur Rahman and Manisa Pipattanasompornfrom from Virginia Tech, in partnership with the DOD’s Strategic Environmental Research and Development Program (SERDP), developed the five aforementioned tasks as well as a model called an Intelligent Distributed Autonomous Power Systems (IDAPS) microgrid. Their grid had the following characteristics: 1. Intelligence: The IDAPS microgrid knew which loads were critical and which loads it could shed during a commercial power outage. The grid made its decisions based upon a prioritized list of loads, the available internal power generation capability of the installation, and the expected duration of the outage. 2. Distribution: The grid connected various sources of power generation known as Distributed Energy Resources (DERs). By incorporating a range of generation sources the grid avoided the possibility of a single point failure being catastrophic to the mission assurance of the installation. 3. Autonomy: The grid could detect commercial power outages autonomously and island the installation without any human interaction, thus ensuring power to critical installation facilities. 4. Plug & Play and Scalability: An installation could add or remove DERs without any loss in function. This characteristic allows the installations to constantly update their renewable energy generation and add new sources of power without losing efficiency. Furthermore, the IDAPS microgrids are combinable. Installations could combine their microgrids to create “the building blocks for a more resilient regional electric power system.” 46

An important part of this research from Virginia Tech was the development of algorithms for the microgrid to estimate the electrical generation coming from typical renewable energy sources, including wind, solar, microturbines, and fuel cells. Some surprising evidence of the resiliency of electric grids controlled by microgrids comes from an unexpected place--Cuba. Cuba’s population of 11 million suffered 188 and 224 blackouts lasting more than one hour in 2004 and 2005, respectively. However, in 2007, the island suffered zero blackouts lasting more than one hour. In 2006, the Cuban government made a widespread, concerted effort to increase energy efficiency among its population and install microgrids with DERs across the country. In 2008, when two hurricanes in two weeks felled 167 transmission towers, the DERs and microgrids proved their resiliency. In the most damaged areas, microgrids islanded themselves and turned on portable diesel backup generators to maintain power to all critical services such as hospitals, food plants, and schools. The government is currently investing in renewable energy generation to replace its older diesel generators and make Cuba more energy independent. 47 Cuba’s experience provides two lessons for the US military. First, the resiliency shown by Cuba’s microgrids and DERs, despite severe damage from the hurricanes, lends itself to possible application in areas where the electric grid is always at risk such as Baghdad’s Sadr City. 48 Providing reliable electricity to a hazardous area could serve as a valuable counterinsurgency tool. However, this is a topic deserving of its own analysis and report and is too nuanced to discuss in depth here. The second lesson for the US military is the ability of a command structured organization, such as the Cuban Government or the US military, to enact significant reforms quickly and effectively when significant problems arise. According to the NREL, the structural hierarchy of the DOD gives it advantages in enacting radical change at speed and scale. The DOD has a history of adopting new technologies that later became important on the consumer market such as the Internet and GPS. 49 Evidence of the benefits of full scale integration of microgrids is available from the US as well. The residents and the public utility in Naperville, IL decided to invest in microgrid technology in the 1990s when their average duration of a blackout for a consumer, called the System Average Interruptible Duration Index (SAIDI), approached two hours. By 2010, the average duration was only 18 minutes. Likely the most important development was the construction of a real-time data acquisition system called System Control & Data Acquisition (SCADA). The so-called “smart grid brain” gathered and processed data and allowed the utility to anticipate demand spikes. Apart from the expected net benefit of $52 million the city expects over the next 15 years, the microgrid will eventually allow for lower prices per kilowatt hour of electricity as the utility better understands consumers’ needs and will serve as initial infrastructure for the integration of electric vehicles. 50

### 2nc

#### And, nuclear power is MORE variable and results in LESS efficient energy AND MORE blackouts---start ups can take up to 2 weeks in the event of a minor incident

Lovins 8 (Physicist Amory Lovins, a 45-year student of this subject, is Cofounder, Chairman, and Chief Scientist of Rocky Mountain Institute (www.rmi.org) and Cofounder and Chairman Emeritus of Fiberforge, Inc. “The Nuclear Illusion” filetype pdf)

Research is increasingly showing that if we properly diversify renewable energy supplies in type and location, forecast the weather (as hydropower and windpower operators now do), and integrate renewables with existing demand- and supply-side resources on the grid, then renewables’ electrical supplies will be more reliable than current arrangements. That is, such a renewablebased power system, even if solar and wind form a large fraction of supply, will generally need less storage and backup capacity than we’ve already installed and paid for to cope with the intermittency of large thermal stations—which fail unpredictably, for long periods, in billionwatt chunks.97 Though micropower’s unreliability is an unfounded myth, nuclear power’s unreliability is all too real. Nuclear plants are capital-intensive and run best at constant power levels, so operators go to great pains to avoid technical failures. These nonetheless occur occasionally, due to physical causes that tend to increase with age due to corrosion, fatigue, and other wear and tear. Some nuclear power failures are major and persistent: of the 132 U.S. nuclear units that were built and licensed to operate (52% of the original 253 orders), 21% were permanently shut down because of intractable reliability or cost issues (or in one case a meltdown), while a further 27% have suffered one or more forced outages of at least a year.98 When the remaining 68 units work well, their output is indeed commendably steady and dependable, lately averaging ~90% capacity factor in the United States. However, even these relatively successful nuclear plants also present four unique reliability issues: Routine refueling, usually coordinated with scheduled major maintenance, shuts down the typical U.S. nuclear plant for 37 days every 17 months.99 • In both Europe and the United States, prolonged heat waves have shut down or derated multiple nuclear plants when their sources of cooling water got too hot.100 A major accident or terrorist attack at any nuclear plant could cause most or all others in the same country or even in the world to be shut down, much as all 17 of Tokyo Electric Company’s nuclear units were shut down for checks in 2002–04 for many months, and some units for several years after falsified safety data came to light. Natural disaster can also intervene: a 7-unit Tokyo Electric Power Company (TEPCO) nuclear complex, the largest in the world—outproduced only by the Itaipu and Three Gorges Dams, and supplying 6–7% of Japan’s power—was indefinitely shut down by 2006 damage from an earthquake stronger than its supposedly impossible design basis, and remains down in spring 2008. Its output is being replaced by recommissioned and hastily finished oil-, gas-, and coal-fired plants; the operator’s extra cost in FY2007 alone was ~$5.6 billion.101 • Unlike scheduled outages, many nuclear units can also fail simultaneously and without warning in regional blackouts, which necessarily and instantly shut down nuclear plants for safety. But nuclear physics then makes restart slow and delicate: certain neutronabsorbing fission products must decay before there are enough surplus neutrons for stable operation. Thus at the start of the 14 August 2003 northeast North American blackout, nine U.S. nuclear units totaling 7,851 MW were running perfectly at 100% output, but after emergency shutdown, they took two weeks to restart fully. They achieved 0% output on the first day after the midafternoon blackout, 0.3% the second day, 5.7% the third, 38.4% the fourth, 55.2% the fifth, and 66.8% the sixth. The average capacity loss was 97.5% for three days, 62.5% for five days, 59.4% for 7 days, and 53.2% for 12 days102— hardly a reliable resource no matter how exemplary its normal operation. Canada’s restart was even rougher, with Toronto teetering for days on the brink of complete grid failure despite desperate appeals to turn everything off. This nuclear-physics characteristic of nuclear plants makes them “anti-peakers”—guaranteed unavailable when they’re most needed.

### Condo

---Real World-Policy makers do consider multiple options at once. Their argument guts one of the core elements of policy discussion.

---Best policy justifies-Multiple options make it more likeley that the best policy will be found. The role of the judge is to endorse the best policy at the end of the round. If a conditional counterplan has been proven to be the best policy, it’s perverse not to allow it to be endorsed.

---Education-Argument breadth has benefits. If depth were the only value, teams wouldn’t be allowed to debate more than one advantage or disadvanatge per round. Exploring the range of issues on a subject is also intellectualy important.

#### ---Time limits aren’t an answer

A. Time is finite in debate. Running one argument inherently trades off with another.

B. Other arguments make this non-unique. Multipe topicality arguments, two card disads, or kritiks equally distort time.

C. Creating time pressure and making time based decisions is an inherent part of debate strategy. It’s an acceptable part of all other debate arguments.

---Counterplans don’t introduce unique complexity into the round. The counterplan may just be a minor alteration of the plan. Disadvantage s also raise multiple issues.

---Permutations justify-Retaining the status quo as an option is reciprocal to the affirmative’s ability to advocate the plan or permutation.

---Conditionality is reciprocal to the affirmative’s ability to select a case. Since the affirmative selects the ground for the debate they enjoy a huge preparation advantage. Allowing hypothetical negative arguments helps to defeat this edge.

---Advocacy concerns aren’t decisive.

A. In the real world, policies are attacked from avariety of perspectives. In debate there is only one negative team, so to encompass the true range of potential counter-affirmative advocacy, multiple positions must be allowed.

B. Most debate practice isn’t consistent with the advocacy paradigm. Strategic concessions by the affirmative and permutations allow the affirmative to advocate multiple positions.

---Not a voting issue. Emphasis on punishment incentivizes a race to bottom discouraging substsantive debates.

### Comm relz

Boccuti, Faul and Gray, 12

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

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

#### We have 3 independent links

#### Local community backlash - Even your solvency advocates admit the link is true and highly likely

Andres and Breetz 11

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

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

#### plan sends critical signal of isolation to both local community and base officials - Military bases prioritizing community integration now

Parthemore and Rogers, 10

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

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

#### Impact - strong local community relations are vital to military effectiveness

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

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

### 2nc evidence framing

#### Prefer our ev –

#### A) Their authors have biases- the military wants funding for its programs and corporations/media have an economic interest in fear

#### B) Vagueness- There is no concrete definition or example of cyberwarfare that means all of their scenarios are postulation not science makes inflating them very easy

#### All their authors are biased

Schneier 10

(Bruce, Security Technologist and author of several books on cyber security, “The Exaggerated Fears of Cyber-War” 9/2/09 http://www.schneier.com/blog/archives/2009/09/the\_exaggerated.html

On cyber-terrorism: So why is there so much concern about “cyber-terrorism”? Answering a question with a question: who frames the debate? Much of the data are gathered by ultra-secretive government agencies—which need to justify their own existence—and cyber-security companies—which derive commercial benefits from popular anxiety. Journalists do not help. Gloomy scenarios and speculations about cyber-Armaggedon draw attention, even if they are relatively short on facts. Politicians, too, deserve some blame, as they are usually quick to draw parallels between cyber-terrorism and conventional terrorism—often for geopolitical convenience—while glossing over the vast differences that make military metaphors inappropriate. In particular, cyber-terrorism is anonymous, decentralized, and even more detached than ordinary terrorism from physical locations. Cyber-terrorists do not need to hide in caves or failed states; “cyber-squads” typically reside in multiple geographic locations, which tend to be urban and well-connected to the global communications grid. Some might still argue that state sponsorship (or mere toleration) of cyber-terrorism could be treated as casus belli, but we are yet to see a significant instance of cyber-terrorists colluding with governments. All of this makes talk of large-scale retaliation impractical, if not irresponsible, but also understandable if one is trying to attract attention. Much of the cyber-security problem, then, seems to be exaggerated: the economy is not about to be brought down, data and networks can be secured, and terrorists do not have the upper hand. On cyber-war: Putting these complexities aside and focusing just on states, it is important to bear in mind that the cyber-attacks on Estonia and especially Georgia did little damage, particularly when compared to the physical destruction caused by angry mobs in the former and troops in the latter. One argument about the Georgian case is that cyber-attacks played a strategic role by thwarting Georgia’s ability to communicate with the rest of the world and present its case to the international community. This argument both overestimates the Georgian government’s reliance on the Internet and underestimates how much international PR -- particularly during wartime -- is done by lobbyists and publicity firms based in Washington, Brussels, and London. There is, probably, an argument to be made about the vast psychological effects of cyber-attacks -- particularly those that disrupt ordinary economic life. But there is a line between causing inconvenience and causing human suffering, and cyber-attacks have not crossed it yet.

#### Economic incentives

WSJ 11

(Michael Hickins, “White House Advisor: Use of Term Cyberwar “Terrible” 2/15/11, Wall Street Journal http://blogs.wsj.com/digits/2011/02/15/white-house-advisor-use-of-term-cyberwar-terrible/)

It was in fact Mr. Schneier who kicked off discussion of the war-like rhetoric, claiming that this is part of a turf war to determine which federal agency would have control over cybersecurity, abetted by “exaggeration and distortion” by a “military industrial complex that does that quite well.” “Metaphors matter here,” he added. “All these examples [of online sabotage] aren’t really warfare, but if you call them warfare, a different set of psychological buttons get pushed. To the police, we are citizens to defend. To the military, we are a population to be subdued, or at least to get out of the way and not make trouble.” The examples to which Mr. Schneier referred include suspected instances of online sabotage against Estonia in April 2007 and against Georgia in 2009, and the so-called “ghostnet” surveillance network of the U.S. power grid. According to Mr. Schneier, companies like Booz Allen Hamilton, which is participating in a public debate on cybersecurity matters tomorrow at RSA, a security industry conference, are ratcheting up the rhetoric for their own economic benefit. Booz Allen Hamilton vice president “Mike McConnell [has] made a lot of money in cyber war contracts… Talking up cyber war is what he does; it’s in his political and economic interest to do it,” said Mr. Schneier.

#### Even if they are not biased, they congnitivly think attacks are more likely than they really are.

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

Several scholars have asked why there is such a divergence between cyber-doom scenarios and the few incidents of actual cyberattack that we have thus far witnessed (Stohl, 2007; Weimann, 2008: 42). They have resolved the paradox, in part, by pointing to the fact that fears of cyberterrorism and cyberwar combine a number of long-standing human fears, including fear of terrorism (especially since 9/11), fear of the unknown, and fear of new technologies (Stohl, 2007; Weimann, 2008: 42; Embar-Seddon, 2002: 1034). Here I will focus on the third of these, the fear of “technology out of control” as an increasingly prominent fear held by citizens of Western, industrial societies over the last century. Concerns about cybersecurity are but the latest manifestation of this fear. Historians of technology have written extensively about the rise of the belief in “autonomous technology” or “technological determinism” in Western societies, as well as the increasingly prominent feelings of pessimism and fear that have come along with these beliefs. While many in the nineteenth century believed that technological innovation was the key to human progress (Hughes, 2004), throughout the course of the twentieth century, many began to question both humanity’s ability to control its creations, as well as the impacts of those creations. Thus, we have seen the emergence of “the belief that technology is the primary force shaping the post-modern world” (Marx, 1997: 984) but also “that somehow technology has gotten out of control and follows its own course, independent of human direction” (Winner, 1977: 13). As a result, we have also seen the emergence of an increasing sense of “technological pessimism” (Marx, 1994: 238), a sense of ambivalence towards technology in which we at once marvel at the innovations that have made modern life possible, but also “a gathering sense . . . of political impotence” and “the feeling that our collective life in society is uncontrollable” as a result of our increasing dependence upon technology (Marx, 1997: 984). Technological determinism, both optimistic and pessimistic, is found in a number of recent and influential scholarly and popular works that address the role of technological change in society. These include Manuel Castells’ mostly optimistic work, which identifies information and knowledge working on themselves in a feedback loop as being the core of the new economy (Castells, 2000), and Kevin Kelly’s more recent and more pessimistic work that posits definition an emergent, self-reinforcing, technology dependent society he calls the “technium” (Kelly, 2010). The character of the technologies that are most prominent in our lives has indeed changed over the last century, from individual mechanical devices created by individual inventors to large socio-technical systems created and managed by large, geographically dispersed organizations (Marx, 1994: 241; Marx, 1997: 972–974). In the twentieth century, we came to realize that “Man now lives in and through technical creations” (Winner, 1977: 34) and to “entertain the vision of a postmodern society dominated by immense, overlapping, quasi-autonomous technological systems,” in which society itself becomes “a meta-system of systems upon whose continuing ability to function our lives depend.” It is no wonder that the “inevitably diminished sense of human agency” that attends this vision should lead to pessimism and fear directed at technology (Marx, 1994: 257). That these fears are manifest in contemporary concerns about cybersecurity should not come as a surprise. **Scholars have noted that our reactions to new technologies are often “mediated by older attitudes”** (Marx, 1994: 239) which often include a familiar “pattern of responses to new technologies that allure [and] threaten” (Simon, 2004: 23). Many of the concerns found in contemporary cybersecurity discourse are not unique, but rather, have strong corollaries in early 20th-century concerns about society’s increasing reliance upon interdependent and seemingly fragile infrastructure systems of various types, including electronic communication networks

### 2NC No Escalation

#### It won’t escalate – brown --

#### A) Localization- cyberspace necessitates local attacks makes global spillover impossible

#### B) Quick response- empirically solutions to viruses and malware are developed in a few days max

#### C) Non internet infrastructure- huge facets of the financial system aren’t connected to the internet

#### No spillover-the longer they are in the increased risk they get caught

Sommer & Brown 11

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

Appendix 1 of this study attempts an exploration of a number of potential feasible global cyber hazards, analysing them for Triggers/ Likelihood of Occurrence/ Ease of Implementation, Immediate Impact, Likely Duration / Recovery factors –immediate, Propagation, Likely Duration / Recovery factors –Longer Term, and Potential for Global Impact. The purpose is not to make precise forecasts or to produce an exhaustive list, but to build an understanding of some of the key mechanisms and risk factors. Some of the events described as a ―failure‖or a ―compromise‖are neutral as to whether the cause is deliberate or accidental –the focus is on effects. It will be seen that, once the scenarios are played through, almost none of them actually qualify as a likely global shock, although in some instances the local and short-term effects can be considerable. There are a number of reasons why cyber-events do not necessarily reach a tipping point from which there is a cascade into a more global event, among them: The Internet was designed from the start to be robust and self-healing, so that failures in one part are routed around The same is true of the main physical telecommunications infrastructure –there can be local failings but all other traffic will find alternative, albeit slightly slower, routes In many cyber-events there is no loss of physical resource; what may need to be rectified is vulnerable software or data Historically, solutions to discovered flaws in software and operating systems and/or the emergence of new forms of malware - have been found and made available within a few days Again, historically, few single DDoS attacks have lasted more than a day; this seems to be because defensive signatures are fairly rapidly derived and because the longer an attack lasts the greater the opportunities for trace-back techniques to identify perpetrators Many government departments and major businesses and organisations have ICT-related back-up and contingency plans If a single large commercial or NGO entity such as a bank or health-care provider is incapacitated, there is often some rival alternative organisation that take on some of the essential traffic Although their usage is not as universal as one may like, large numbers of government departments and major businesses and organisations and private individuals do deploy up-to-date malware detection, firewalls and intrusion detection technologies. The consequence is that would-be perpetrators must constantly find new exploits if they are to be successful. Many of the networks transmitting the most important data, for example about world financial transactions, are not connected to the Internet, use specialised protocols and equipment, and have reasonably strong levels of access control. Any compromise requires insider knowledge Local loss of internet and telecommunications capacity –or even power and water supplies - for a few days, while causing possibly great inconvenience and some financial loss, does not qualify as a ―global shock‖.

#### Tracing means attacks are short lived and contained- our ev assumes all variables

Sommer & Brown 11

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

Pure cybersecurity risks tend to be localised and temporary rather than global and long-term. This is for two fundamental reasons: 1. The longer an attack persists, the greater the likelihood it will be detected, routed around, and become attributable to a specific party against whom actions can be taken (including disconnection, arrest and retribution). 2. Larger-scale attacks result in more of the data needed to diagnose and fix system vulnerabilities, and provide a stronger incentive to system suppliers and administrators to do so (Libicki, 2009: xiv). Even for the best-resourced and most determined attackers –nation states taking military action –these conditions are likely to hold. RAND Corporation recently reported to the US Air Force ―operational cyberwar has an important niche role, but only that‖, commenting: ―Investigation may reveal that a particular system has a particular vulnerability. Predicting what an attack can do requires knowing how the system and its operators will respond to signs of dysfunction and knowing the behaviour of processes and systems associated with the system being attacked. Even then, cyberwar operations neither directly harm individuals nor destroy equipment (albeit with some exceptions). At best, these operations can confuse and frustrate operators of military systems, and then only temporarily. Thus, cyberwar can only be a support function for other elements of warfare, for instance, in disarming the enemy‖(Libicki, 2009: xiv—xv).

#### Risk of a cyberattack extremely low and any impact would be temporary and small

Vancouver Sun 11

January 18, 2011, p. http://www.vancouversun.com/business/Risk+devastating+cyberattack+still+relatively+OECD+report/4123901/story.html

Few attacks or events have the capacity to bring critical global computer systems to their knees, despite widespread fears to the contrary, according to a new report commissioned by the Organization for Economic Co-operation and Development (OECD). There are "significant and growing risks of localized misery and loss," the report finds, but those attacks are most likely to have short-term impacts in limited areas rather than creating a "global shock" causing serious economic damage or loss of life. "Most of the stuff you read about in the media -- virus infections, identity fraud, web-sites being hacked and defaced -- are upsetting for individuals and companies but not something that governments should really focus on directly as a threat overall to the nation," said Ian Brown, a senior research fellow at the Oxford Internet Institute at Oxford University and co-author of the report. "We were slightly encouraged. We certainly came to the conclusion that risks are lower than you sometimes see in the press." The report, co-authored by Peter Sommer at the London School of Economics, is part of the OECD's Future Global Shocks series examining potentially catastrophic global events such as financial collapse, disease pandemics and weather and volcanic conditions bringing intercontinental transport to a halt. One of the only viable triggers they could foresee for a global computer meltdown are "capable, well resourced nation-states using cyber attacks as part of overall warfare," Brown said, while cautioning that the list of countries with serious cyber-warfare capability is a very short one that includes the U.S., U.K., China and Israel. "Other states and sub-state actors like terrorist groups, organized criminal gangs and individual hackers, hacktivists and so on are very unlikely to be able to cause those serious consequences through online attacks," he said.

### Heg defense

#### Data disproves hegemony impacts

Fettweis, 11

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

It is perhaps worth noting that there is no evidence to support a direct relationship between the relative level of U.S. activism and international stability. In fact, the limited data we do have suggest the opposite may be true. During the 1990s, the United States cut back on its defense spending fairly substantially. By 1998, the United States was spending $100 billion less on defense in real terms than it had in 1990.51 To internationalists, defense hawks and believers in hegemonic stability, this irresponsible “peace dividend” endangered both national and global security. “No serious analyst of American military capabilities,” argued Kristol and Kagan, “doubts that the defense budget has been cut much too far to meet America’s responsibilities to itself and to world peace.”52 On the other hand, if the pacific trends were not based upon U.S. hegemony but a strengthening norm against interstate war, one would not have expected an increase in global instability and violence.

The verdict from the past two decades is fairly plain: The world grew more peaceful while the United States cut its forces. No state seemed to believe that its security was endangered by a less-capable United States military, or at least none took any action that would suggest such a belief. No militaries were enhanced to address power vacuums, no security dilemmas drove insecurity or arms races, and no regional balancing occurred once the stabilizing presence of the U.S. military was diminished. The rest of the world acted as if the threat of international war was not a pressing concern, despite the reduction in U.S. capabilities. Most of all, the United States and its allies were no less safe. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Clinton, and kept declining as the Bush Administration ramped the spending back up. No complex statistical analysis should be necessary to reach the conclusion that the two are unrelated.

Military spending figures by themselves are insufficient to disprove a connection between overall U.S. actions and international stability. Once again, one could presumably argue that spending is not the only or even the best indication of hegemony, and that it is instead U.S. foreign political and security commitments that maintain stability. Since neither was significantly altered during this period, instability should not have been expected. Alternately, advocates of hegemonic stability could believe that relative rather than absolute spending is decisive in bringing peace. Although the United States cut back on its spending during the 1990s, its relative advantage never wavered.

However, even if it is true that either U.S. commitments or relative spending account for global pacific trends, then at the very least stability can evidently be maintained at drastically lower levels of both. In other words, even if one can be allowed to argue in the alternative for a moment and suppose that there is in fact a level of engagement below which the United States cannot drop without increasing international disorder, a rational grand strategist would still recommend cutting back on engagement and spending until that level is determined. Grand strategic decisions are never final; continual adjustments can and must be made as time goes on. Basic logic suggests that the United States ought to spend the minimum amount of its blood and treasure while seeking the maximum return on its investment. And if the current era of stability is as stable as many believe it to be, no increase in conflict would ever occur irrespective of U.S. spending, which would save untold trillions for an increasingly debt-ridden nation.

It is also perhaps worth noting that if opposite trends had unfolded, if other states had reacted to news of cuts in U.S. defense spending with more aggressive or insecure behavior, then internationalists would surely argue that their expectations had been fulfilled. If increases in conflict would have been interpreted as proof of the wisdom of internationalist strategies, then logical consistency demands that the lack thereof should at least pose a problem. As it stands, the only evidence we have regarding the likely systemic reaction to a more restrained United States suggests that the current peaceful trends are unrelated to U.S. military spending. Evidently the rest of the world can operate quite effectively without the presence of a global policeman. Those who think otherwise base their view on faith alone.

#### No challengers

Kaplan, senior fellow – Center for a New American Security, and Kaplan, frmr. vice chairman – National Intelligence Council, ‘11

(Robert D and Stephen S, “America Primed,” *The National Interest*, March/April)

But in spite of the seemingly inevitable and rapid diminution of U.S. eminence, to write America’s great-power obituary is beyond premature. The United States remains a highly capable power. Iraq and Afghanistan, as horrendous as they have proved to be—in a broad historical sense—are still relatively minor events that America can easily overcome. The eventual demise of empires like those of Ming China and late-medieval Venice was brought about by far more pivotal blunders.

Think of the Indian Mutiny against the British in 1857 and 1858. Iraq in particular—ever so frequently touted as our turning point on the road to destruction—looks to some extent eerily similar. At the time, orientalists and other pragmatists in the British power structure (who wanted to leave traditional India as it was) lost some sway to evangelical and utilitarian reformers (who wanted to modernize and Christianize India—to make it more like England). But the attempt to bring the fruits of Western civilization to the Asian subcontinent was met with a violent revolt against imperial authority. Delhi, Lucknow and other Indian cities were besieged and captured before being retaken by colonial forces. Yet, the debacle did not signal the end of the British Empire at all, which continued on and even expanded for another century. Instead, it signaled the transition from more of an ad hoc imperium fired by a proselytizing lust to impose its values on others to a calmer and more pragmatic empire built on international trade and technology.1 There is no reason to believe that the fate of America need follow a more doomed course.

Yes, the mistakes made in Iraq and Afghanistan have been the United States’ own, but, though destructive, they are not fatal. If we withdraw sooner rather than later, the cost to American power can be stemmed. Leaving a stable Afghanistan behind of course requires a helpful Pakistan, but with more pressure Washington might increase Islamabad’s cooperation in relatively short order.

In terms of acute threats, Iran is the only state that has exported terrorism and insurgency toward a strategic purpose, yet the country is economically fragile and politically unstable, with behind-the-scenes infighting that would make Washington partisans blanch. Even assuming Iran acquires a few nuclear devices—of uncertain quality with uncertain delivery systems—the long-term outlook for the clerical regime is itself unclear. The administration must only avoid a war with the Islamic Republic.

To be sure, America may be in decline in relative terms compared to some other powers, as well as to many countries of the former third world, but in absolute terms, particularly military ones, the United States can easily be the first among equals for decades hence.

China, India and Russia are the only major Eurasian states prepared to wield military power of consequence on their peripheries. And each, in turn, faces its own obstacles on the road to some degree of dominance.

The Chinese will have a great navy (assuming their economy does not implode) and that will enforce a certain level of bipolarity in the world system. But Beijing will lack the alliance network Washington has, even as China and Russia will always be—because of geography—inherently distrustful of one another. China has much influence, but no credible military allies beyond possibly North Korea, and its authoritarian regime lives in fear of internal disruption if its economic growth rate falters. Furthermore, Chinese naval planners look out from their coastline and see South Korea and a string of islands—Japan, Taiwan and Australia—that are American allies, as are, to a lesser degree, the Philippines, Vietnam and Thailand. To balance a rising China, Washington must only preserve its naval and air assets at their current levels.

India, which has its own internal insurgency, is bedeviled by semifailed states on its borders that critically sap energy and attention from its security establishment, and especially from its land forces; in any case, India has become a de facto ally of the United States whose very rise, in and of itself, helps to balance China.

Russia will be occupied for years regaining influence in its post-Soviet near abroad, particularly in Ukraine, whose feisty independence constitutes a fundamental challenge to the very idea of the Russian state. China checks Russia in Central Asia, as do Turkey, Iran and the West in the Caucasus. This is to say nothing of Russia’s diminishing population and overwhelming reliance on energy exports. Given the problems of these other states, America remains fortunate indeed.

The United States is poised to tread the path of postmutiny Britain. America might not be an empire in the formal sense, but its obligations and constellation of military bases worldwide put it in an imperial-like situation, particularly because its air and naval deployments will continue in a post-Iraq and post-Afghanistan world. No country is in such an enviable position to keep the relative peace in Eurasia as is the United States—especially if it can recover the level of enduring competence in national-security policy last seen during the administration of George H. W. Bush. This is no small point. America has strategic advantages and can enhance its power while extricating itself from war. But this requires leadership—not great and inspiring leadership which comes along rarely even in the healthiest of societies—but plodding competence, occasionally steely nerved and always free of illusion.

#### Their laundry list of vague impacts is academic junk – conflicts can’t just emerge

Fettweis, 11

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

Assertions that without the combination of U.S. capabilities, presence and commitments instability would return to Europe and the Pacific Rim are usually rendered in rather vague language. If the United States were to decrease its commitments abroad, argued Robert Art, “the world will become a more dangerous place and, sooner or later, that will redound to America’s detriment.”53 From where would this danger arise? Who precisely would do the fighting, and over what issues? Without the United States, would Europe really descend into Hobbesian anarchy? Would the Japanese attack mainland China again, to see if they could fare better this time around? Would the Germans and French have another go at it? In other words, where exactly is hegemony is keeping the peace? With one exception, these questions are rarely addressed.

That exception is in the Pacific Rim. Some analysts fear that a de facto surrender of U.S. hegemony would lead to a rise of Chinese influence. Bradley Thayer worries that Chinese would become “the language of diplomacy, trade and commerce, transportation and navigation, the internet, world sport, and global culture,” and that Beijing would come to “dominate science and technology, in all its forms” to the extent that soon the world would witness a Chinese astronaut who not only travels to the Moon, but “plants the communist flag on Mars, and perhaps other planets in the future.”54 Indeed China is the only other major power that has increased its military spending since the end of the Cold War, even if it still is only about 2 percent of its GDP. Such levels of effort do not suggest a desire to compete with, much less supplant, the United States. The much-ballyhooed, decade-long military buildup has brought Chinese spending up to somewhere between one-tenth and one-fifth of the U.S. level. It is hardly clear that a restrained United States would invite Chinese regional, must less global, political expansion. Fortunately one need not ponder for too long the horrible specter of a red flag on Venus, since on the planet Earth, where war is no longer the dominant form of conflict resolution, the threats posed by even a rising China would not be terribly dire. The dangers contained in the terrestrial security environment are less severe than ever before.

Believers in the pacifying power of hegemony ought to keep in mind a rather basic tenet: When it comes to policymaking, specific threats are more significant than vague, unnamed dangers. Without specific risks, it is just as plausible to interpret U.S. presence as redundant, as overseeing a peace that has already arrived. Strategy should not be based upon vague images emerging from the dark reaches of the neoconservative imagination.

Overestimating Our Importance

One of the most basic insights of cognitive psychology provides the final reason to doubt the power of hegemonic stability: Rarely are our actions as consequential upon their behavior as we perceive them to be. A great deal of experimental evidence exists to support the notion that people (and therefore states) tend to overrate the degree to which their behavior is responsible for the actions of others. Robert Jervis has argued that two processes account for this overestimation, both of which would seem to be especially relevant in the U.S. case.55 First, believing that we are responsible for their actions gratifies our national ego (which is not small to begin with; the United States is exceptional in its exceptionalism). The hubris of the United States, long appreciated and noted, has only grown with the collapse of the Soviet Union.56 U.S. policymakers famously have comparatively little knowledge of—or interest in—events that occur outside of their own borders. If there is any state vulnerable to the overestimation of its importance due to the fundamental misunderstanding of the motivation of others, it would have to be the United States. Second, policymakers in the United States are far more familiar with our actions than they are with the decision-making processes of our allies. Try as we might, it is not possible to fully understand the threats, challenges, and opportunities that our allies see from their perspective. The European great powers have domestic politics as complex as ours, and they also have competent, capable strategists to chart their way forward. They react to many international forces, of which U.S. behavior is only one. Therefore, for any actor trying to make sense of the action of others, Jervis notes, “in the absence of strong evidence to the contrary, the most obvious and parsimonious explanation is that he was responsible.”57

It is natural, therefore, for U.S. policymakers and strategists to believe that the behavior of our allies (and rivals) is shaped largely by what Washington does. Presumably Americans are at least as susceptible to the overestimation of their ability as any other people, and perhaps more so. At the very least, political psychologists tell us, we are probably not as important to them as we think. The importance of U.S. hegemony in contributing to international stability is therefore almost certainly overrated.

In the end, one can never be sure why our major allies have not gone to, and do not even plan for, war. Like deterrence, the hegemonic stability theory rests on faith; it can only be falsified, never proven. It does not seem likely, however, that hegemony could fully account for twenty years of strategic decisions made in allied capitals if the international system were not already a remarkably peaceful place. Perhaps these states have no intention of fighting one another to begin with, and our commitments are redundant. European great powers may well have chosen strategic restraint because they feel that their security is all but assured, with or without the United States.

#### Even if the US is engaged they don’t solve war

Mearsheimer 2011 (John J., R. Wendell Harrison Distinguished Service Professor of Political Science at the University of Chicago, The National Interest, Imperial by Design, lexis)

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

#### The US can’t influence other states, laundry list of empirics prove

Haass, 8 [Richard, President of the Council on Foreign Relations, “ The Age of Nonpolarity,” Foreign Affairs; May/Jun2008, Vol. 87 Issue 3, p44-56, 13p, 1 ]

Power and influence are less and less linked in an era of nonpolarity. U.S. calls for others to reform will tend to fall on deaf ears, U.S. assistance programs will buy less, and U.S.-led sanctions will accomplish less. After all, China proved to be the country best able to influence North Koreas nuclear program. Washington's ability to pressure Tehran has been strengthened by the participation of several western European countries--and weakened by the reluctance of China and Russia to sanction Iran. Both Beijing and Moscow have diluted international efforts to pressure the government in Sudan to end its war in Darfur. Pakistan, meanwhile, has repeatedly demonstrated an ability to resist U.S. entreaties, as have Iran, North Korea, Venezuela, and Zimbabwe.

## 1NR

### 2NC OV – China DA

Chinese soft power is key to address all international conflicts and works to solve the root cause of terrorism, western intervention doesn’t solve because it creates a clash of civilizations, that’s zhang the impact is extinction

Robert Ayson, Professor of Strategic Studies and Director of the Centre for Strategic Studies: New Zealand at the Victoria University of Wellington, 2010 (“After a Terrorist Nuclear Attack: Envisaging Catalytic Effects,” Studies in Conflict & Terrorism, Volume 33, Issue 7, July, Available Online to Subscribing Institutions via InformaWorld)

**Washington’s early response to a terrorist nuclear attack** on its own soil **might** also **raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China**. For example, **in the noise and confusion during the immediate aftermath** of the terrorist nuclear attack, **the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment**, when careful planning runs up against the friction of reality, **it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow**, although it must be admitted that **any preemption would probably still meet with a devastating response**. **As part of its initial response** to the act of nuclear terrorism (as discussed earlier) **Washington might decide to order a significant conventional (or nuclear) retaliatory or disarming attack against the leadership of the terrorist group and/or states seen to support that group**. Depending on the identity and especially the location of these targets, **Russia and/or China might interpret such action as being far too close for their comfort, and potentially as an infringement on their spheres of influence and even on their sovereignty**. One far-fetched but perhaps not impossible scenario might stem from a judgment in Washington that some of the main aiders and abetters of the terrorist action resided somewhere such as Chechnya, perhaps in connection with what Allison claims is the “Chechen insurgents’ … long-standing interest in all things nuclear.”42 American pressure on that part of the world would almost certainly raise alarms in Moscow that might require a degree of advanced consultation from Washington that the latter found itself unable or unwilling to provide. **There is also the question of how other nuclear-armed states respond to the act of nuclear terrorism on another member of that special club**. It could reasonably be expected that following a nuclear terrorist attack on the United States, both Russia and China would extend immediate sympathy and support to Washington and would work alongside the United States in the Security Council. But there is just a chance, albeit a slim one, where the support of Russia and/or China is less automatic in some cases than in others. For example, what would happen if the United States wished to discuss its right to retaliate against groups based in their territory? If, for some reason, Washington found the responses of Russia and China deeply underwhelming, (neither “for us or against us”) might it also suspect that they secretly were in cahoots with the group, increasing (again perhaps ever so slightly) the chances of a major exchange. If the terrorist group had some connections to groups in Russia and China, or existed in areas of the world over which Russia and China held sway, and if Washington felt that Moscow or Beijing were placing a curiously modest level of pressure on them, what conclusions might it then draw about their culpability? If Washington decided to use, or decided to threaten the use of, nuclear weapons, the responses of Russia and China would be crucial to the chances of avoiding a more serious nuclear exchange. They might surmise, for example, that while the act of nuclear terrorism was especially heinous and demanded a strong response, the response simply had to remain below the nuclear threshold. It would be one thing for a non-state actor to have broken the nuclear use taboo, but an entirely different thing for a state actor, and indeed the leading state in the international system, to do so. If Russia and China felt sufficiently strongly about that prospect, there is then the question of what options would lie open to them to dissuade the United States from such action: and as has been seen over the last several decades, the central dissuader of the use of nuclear weapons by states has been the threat of nuclear retaliation. **If some** readers **find this simply too fanciful**, and perhaps even offensive to contemplate, **it may be informative to reverse the tables. Russia**, which possesses an arsenal of thousands of nuclear warheads and that has been one of the two most important trustees of the non-use taboo, **is subjected to an attack of nuclear terrorism. In response, Moscow places its nuclear forces very visibly on a higher state of alert and declares that it is considering the use of nuclear retaliation against the group and any of its state supporters. How would Washington view such a possibility?** Would it really be keen to support Russia’s use of nuclear weapons, including outside Russia’s traditional sphere of influence? And if not, which seems quite plausible, what options would Washington have to communicate that displeasure? **If China had been the victim of the nuclear terrorism and seemed likely to retaliate in kind, would the United States and Russia be happy to sit back and let this occur? In the charged atmosphere immediately after a nuclear terrorist attack, how would the attacked country respond to pressure from other major nuclear powers not to respond in kind? The phrase “how dare they tell us what to do” immediately springs to mind. Some might even go so far as to interpret this concern as a tacit form of sympathy or support for the terrorists. This might not help the chances of nuclear restraint.**

#### Nuclear power leadership is key to weaning china off of their coal addiction, that’s boey, the impact is massive pollution and political instability

Schneider 11 (Keith, senior editor for Circle of Blue-a nonprofit focusing on resource shortages founded in 2000, Choke Point: China—Confronting Water Scarcity and Energy Demand in the World’s Largest Country, Feb 15, http://www.circleofblue.org/waternews/2011/world/choke-point-china%E2%80%94confronting-water-scarcity-and-energy-demand-in-the-world%E2%80%99s-largest-country/)

By any measure, conventional and otherwise, China’s tireless advance to international economic prominence has been nothing less than astonishing. Over the last decade alone, 70 million new jobs emerged from an economy that this year, according to the World Bank and other authorities, generated the world’s largest markets for cars, steel, cement, glass, housing, energy, power plants, wind turbines, solar panels, highways, high-speed rail systems, airports, and other basic supplies and civic equipment to support a modern economy. Yet, like a tectonic fault line, underlying China’s new standing in the world is an increasingly fierce competition between energy and water that threatens to upend China’s progress. Simply put, according to Chinese authorities and government reports, China’s demand for energy, particularly for coal, is outpacing its freshwater supply. Students of Chinese history and geography, of course, understand that tight supplies of fresh water are nothing new in a nation where 80 percent of the rainfall and snowmelt occurs in the south, while just 20 percent of the moisture occurs in the mostly desert regions of the north and west. What’s new is that China’s surging economic growth is prompting the expanding industrial sector, which consumes 70 percent of the nation’s energy, to call on the government to tap new energy supplies, particularly the enormous reserves of coal in the dry north. The problem, say government officials, is that there is not enough water to mine, process, and consume those reserves, and still develop the modern cities and manufacturing centers that China envisions for the region. “Water shortage is the most important challenge to China right now, the biggest problem for future growth,” said Wang Yahua, deputy director of the Center for China Study at Tsinghua University in Beijing. “It’s a puzzle that the country has to solve.” The consequences of diminishing water reserves and rising energy demand have been a special focus of Circle of Blue’s attention for more than a year. In 2010, in our Choke Point: U.S. series, Circle of Blue found that rising energy demand and diminishing freshwater reserves are two trends moving in opposing direction across America. Moreover, the speed and force of the confrontation is occurring in the places where growth is highest and water resources are under the most stress—California, the Southwest, the Rocky Mountain West, and the Southeast. Modernization vs. Water Resources In December, we expanded our reporting to China. Circle of Blue—in collaboration with the China Environment Forum (CEF) at the Washington-based Woodrow Wilson International Center for Scholars—dispatched four teams of researchers and photographers to 10 Chinese provinces. Their assignment: to report on how the world’s largest nation and second-largest economy is achieving its swift modernization, despite scarce and declining reserves of clean fresh water. In essence, Circle of Blue and CEF completed a national tour of the extensive water circulatory system and vast energy production musculature that makes China go. The result of our reporting is Choke Point: China. In a dozen chapters—starting today and posted weekly online through April—Choke Point: China will report in text, photographs, and interactive graphics the powerful evidence of a potentially ruinous confrontation between growth, water, and fuel that is already visible across China and is virtually certain to grow more dire over the next decade. Choke Point: China, though, is not a narrative of doom. Rather, our journalists and photographers found a powerful narrative in two parts and never before told. The first important finding—left largely unsaid in and outside China—is how effectively the national and provincial governments enacted and enforced a range of water conservation and efficiency measures. Circle of Blue met the engineers, plant managers, and workers who operate China’s robust and often state-of-the-art energy and water installations. We interviewed the academics and government executives who oversee the globally significant water conservation policies and practices that have been essential to China’s new prosperity. Those policies, we found, sharply reduced waste, shifted water from agriculture to industry, and slowed the growth in national water consumption. Though China’s economy has grown almost eight-fold since the mid-1990s, water consumption has increased 15 percent, or 1 percent annually. China’s major cities, including Beijing, are retrofitting their sewage treatment systems to recycle wastewater for use in washing clothes, flushing toilets, and other grey-water applications. Here in Baotou, a desert city of 1.5 million in Inner Mongolia, the giant Baotou Iron and Steel Company plant, one of the world’s largest, produces 10 million metric tons of steel annually in a region that receives mere inches of rainfall a year. The plant—which is 49 square kilometers and employs 50,000 workers—recycles 98 percent of its water, a requirement of a 1997 law that prompted owners of industrial plants to conserve water. Three Trends Converging We also discovered a second vital narrative that most industrial executives and government authorities we interviewed were either not fully aware of or were reluctant to acknowledge: the tightening choke point between rising energy demand and declining freshwater reserves that forms the central story line of the next era of China’s unfolding development. Stripped to its essence, China’s globally significant choke point is caused by three converging trends:Production of coal has tripled since 2000 to 3.15 billion metric tons a year. Government analysts project that China’s energy companies will need to produce an additional billion metric tons of coal annually by 2020, representing a 30 percent increase. Fresh water needed for mining, processing, and consuming coal accounts for the largest share of industrial water use in China, or roughly 120 billion cubic meters a year, a fifth of all the water consumed nationally. Though national conservation policies have helped to limit increases, water consumption nevertheless has climbed to a record 599 billion cubic meters annually, which is 50 billion cubic meters (13 trillion gallons) more than in 2000. Over the next decade, according to government projections, China’s water consumption, driven in large part by increasing coal-fired power production, may reach 670 billion cubic meters annually — 71 billion cubic meters a year more than today. China’s total water resource, according to the National Bureau of Statistics, has dropped 13 percent since the start of the century. In other words China’s water supply is 350 billion cubic meters (93 trillion gallons) less than it was at the start of the century. That’s as much water lost to China each year as flows through the mouth of the Mississippi River in nine months. Chinese climatologists and hydrologists attribute much of the drop to climate change, which is disrupting patterns of rain and snowfall. “It’s just impossible, if you haven’t lived it or experienced it, to understand change in China over the past 25 years, and especially since 1992,” said Kang Wu, a senior fellow and China energy scholar at East-West Center in Hawaii. “It’s a new world. It’s a new country. The worry in China and in the rest of the world is can they sustain it? They want to double the size of the economy again in 10 years. How can they do that? It’s a paradox from an economic point of view. They need a resource balance to meet demand, short-term and long-term. If you look out 10, 20, 30 years, it just looks like it’s not possible.” Rapid GDP Growth Will Continue In interviews, national and provincial government leaders, as well as energy industry executives, said China has every intention of continuing its 10 percent annual economic growth. “We believe that this is possible and we can do this with new technology, new ways to use water and energy,” said Xiangkun Ren, who oversees the coal-to-liquids program for Shenhua Group, the largest coal company in the world. Xiangkun acknowledged that avoiding the looming choke point will not be easy. The tightening loop is already visible in the jammed rail lines, huge coal truck traffic jams, and buckling roads that Circle of Blue encountered in Inner Mongolia—the country’s largest coal producer—and which are responsible for transporting billions of tons of coal from existing mines to market. Energy prices are steadily rising, putting new inflationary pressure on the economy. Even as China has launched enormous new programs of solar, wind, hydro, and seawater-cooled nuclear power, all of which use much less fresh water, energy market conditions will get worse without new supplies of coal, the source of 70 percent of the nation’s energy. China’s economy and the new social contract with its citizens, who have come to expect rising incomes and improving opportunities, is at risk, say some authorities.

#### And, Chinese pollution causes nuclear war with Russia

Nankivell 05 (Nathan, Senior Researcher @ Office of the Special Advisor Policy, Maritime Forces Pacific Headquarters, Canadian Department of National Defence, China's Pollution and the Threat to Domestic and Regional Stability, China Brief Vol: 5 Issue: 22, http://www.jamestown.org/programs/chinabrief/single/?tx\_ttnews%5Btt\_news%5D=3904&tx\_ttnews%5BbackPid%5D=195&no\_cache=1)

In addition to the concerns already mentioned, pollution, if linked to a specific issue like water shortage, could have important geopolitical ramifications. China’s northern plains, home to hundreds of millions, face acute water shortages. Growing demand, a decade of drought, inefficient delivery methods, and increasing water pollution have reduced per capita water holdings to critical levels. Although Beijing hopes to relieve some of the pressures via the North-South Water Diversion project, it requires tens of billions of dollars and its completion is, at best, still several years away and, at worst, impossible. Yet just to the north lies one of the most under-populated areas in Asia, the Russian Far East. While there is little agreement among scholars about whether resource shortages lead to greater cooperation or conflict, either scenario encompasses security considerations. Russian politicians already allege possible Chinese territorial designs on the region. They note Russia’s falling population in the Far East, currently estimated at some 6 to 7 million, and argue that the growing Chinese population along the border, more than 80 million, may soon take over. While these concerns smack of inflated nationalism and scare tactics, there could be some truth to them. The method by which China might annex the territory can only be speculated upon, but would surely result in full-scale war between two powerful, nuclear-equipped nations.

China expansion solves US nuclear transition---can export technology, makes this debate a question of starting points

Kadak-Prof Nuclear Science, MIT-6

<http://web.mit.edu/pebble-bed/papers1_files/Made%20in%20China.pdf>

Nuclear Power: “Made in China”

Summary China is emerging not only as a super economic power but also as the leader in the deployment and development of new nuclear energy plants. China’s energy needs are enormous, and its path forward in terms of providing sufficient electricity calls for a dramatic expansion of the use of nuclear energy. The Chinese government has determined that, based on its experience and ongoing concern with the environmental consequences of burning coal and other fossil fuels, China needs to aggressively deploy more than 50 plants in the next several decades. Of concern is whether the Chinese can manage this expansion with the quality needed to assure that plants are operated safely, with personnel trained in the proper safety culture. Based on observations to date, 15the Chinese appear to understand the challenges and are addressing them in order to assure the safe operation of the plants. As the United States and other nations have learned, such a task requires vigilance and a dedication to safe operations. With such rapid growth, it has yet to be seen whether or not the safety culture can be transferred to the next generation of operators and engineers. In terms of proliferation of nuclear weapons technology, the choice is one of foreign policy rather than technology. The development of China’s commercial nuclear industry can be done without fear of proliferation of nuclear weapons, provided China does not transfer the weapons sensitive technologies (enrichment and reprocessing) to less-than-trustworthy countries. As in all nations operating nuclear plants and defense facilities, the issue of nuclear waste disposal will be resolved on a country-by-country basis. It is fortunate that China has large areas (such as the Gobi Desert) where waste can be safely disposed of in geological formations. As China aggressively deploys its light water reactors, develops pebble bed reactors for electricity, and processes heat applications, we in the United States are still waiting for our nuclear “renaissance” to occur. It is not inconceivable that as we wait and watch, we may, in the future, be buying reactors “Made in China”

#### **They conceded global warming – external extinction DA you can vote on – its quick because of positive feedbacks that eliminate the sustainability of all life on the planet – only China’s soft power can get the third world on board and displace fossil fuels with safe and clean nuclear power**

### 2NC Hegemony

#### Overall US hegemony is resilient---giving china the advantage on nuclear power will not tank US power projection capabilities, it will only give them more credibility in energy in East Asia, any challenger that would have been emboldened by that move was going to challenge the US inevitably, anyone deterrable by better US nuclear exports was going to be deterred by the HUGE conventional military the US has.

Parent and MacDonald 11 (Joseph M. Parent is Assistant Professor of Political Science at the University of Miami. Paul K. MacDonald is Assistant Professor of Political Science at Wellesley College. “The Wisdom of Retrenchment: America Must Cut Back to Move Forward” http://www.ihavenet.com/World-United-States-The-Wisdom-of-Retrenchment-America-Must-Cut-Back-to-Move-Forward-Foreign-Affairs.html, Donnie)

A somewhat more compelling concern raised by opponents of retrenchment is that the policy might undermine deterrence. Reducing the defense budget or repositioning forces would make the United States look weak and embolden upstarts, they argue. "The very signaling of such an aloof intention may encourage regional bullies," Kaplan worries. This anxiety is rooted in the assumption that the best barrier to adventurism by adversaries is forward defenses -- the deployment of military assets in large bases near enemy borders, which serve as tripwires or, to some eyes, a Great Wall of America. There are many problems with this position. For starters, the policies that have gotten the United States in trouble in recent years have been activist, not passive or defensive. The U.S.-led invasion of Iraq alienated important U.S. allies, such as Germany and Turkey, and increased Iran's regional power. NATO's expansion eastward has strained the alliance and intensified Russia's ambitions in Georgia and Ukraine. More generally, U.S. forward deployments are no longer the main barrier to great-power land grabs. Taking and holding territory is more expensive than it once was, and great powers have little incentive or interest in expanding further. The United States' chief allies have developed the wherewithal to defend their territorial boundaries and deter restive neighbors. Of course, retrenchment might tempt reckless rivals to pursue unexpected or incautious policies, as states sometimes do. Should that occur, however, U.S. superiority in conventional arms and its power-projection capabilities would assure the option of quick U.S. intervention. Outcomes of that sort would be costly, but the risks of retrenchment must be compared to the risks of the status quo. In difficult financial circumstances, the United States must prioritize. The biggest menace to a superpower is not **the possibility of belated entry into a regional crisis; it is the temptation of imperial overstretch**. That is exactly the trap into which opponents of the United States, such as al Qaeda, want it to fall.

#### Weak china is worse than a strong one---destroys the US

YEE AND STOREY 2002

– PROF IR @ HONG KONG U AND DEAKIN U- *THE CHINA THREAT: PERCEPTIONS, MYTHS, AND REALITY*, PAGE 59

American influence over internal outcomes in China, though far from decisive, could nonetheless prove significant. Despite widespread unease about the implications of a more powerful China, an internally unstable China is potentially far more dangerous to American interests. Indifferent or sluggish economic performance could produce internal instability and weakness, possibly triggering a more assertive, overtly nationalistic foreign and defence policy. A wary, weaker leadership would also very likely have fewer incentives to pursue accommodation with its neighbours, much less with the United States.

### 1NR A2: China Won’t Stop/No Link

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

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

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

#### Even their own evidence is a link – their BPC evidence says the plan results in…

strong U.S. leadership in global nuclear security matters is central to protecting our national security interests. In particular, U.S. leadership in nuclear technology and operations can strengthen U.S. influence with respect to other countries’ nuclear programs and the evolution of the international nonproliferation regime, while also supporting U.S. competitiveness in a major export market. Nuclear power technologies are distinct from other potential exports in energy or in other sectors where America’s competitive advantage may also be declining. Because of the potential link between commercial technology and weapons development, nuclear power is directly linked to national security concerns,

#### The plan undercuts Chinese exports. It locks countries into US reactor sales.

Loudermilk 10 (Micah, Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University*, Losing Its Edge? The U.S. and Nuclear Cooperation Deals,* http://inssblog.wordpress.com/2010/08/19/losing-its-edge-the-u-s-and-nuclear-cooperation-deals/)

During the last year of the George W. Bush administration, the United States pursued a number of civilian nuclear cooperation deals with countries around the world including, among others, the United Arab Emirates (UAE), Jordan, and Vietnam. President Barack Obama, since taking office in 2009, has largely followed in the footsteps of his predecessor on this subject – concluding significant nuclear deals with both the UAE and India – whose civil nuclear cooperation agreement with the U.S. has been in the works since 2005.

Both of these **agreements are important** for their own reasons. On the Indian front, the civilian nuclear agreement puts the two countries on the **path to full cooperation** in exchange for India placing its civil nuclear facilities under International Atomic Energy Agency (IAEA) safeguards. In regards to the UAE, President Obama signed a nuclear energy deal with the country in May 2009, opening the door for U.S. reactor builders in the UAE and closing the door on proliferation fears – as the UAE renounced uranium enrichment and spent fuel reprocessing. Additionally, agreements are currently being pursued with Vietnam and Jordan as well.

The UAE’s nuclear deal set the so-called “gold standard” for nuclear cooperation agreements as the nation foreswore both uranium enrichment and fuel reprocessing. This agreement is of paramount importance as it demonstrates the necessity of having the United States involved in the international nuclear fuel and energy markets. By using technology, equipment, and a fuel supply as **bargaining chips**, the government possesses the ability to **heavily influence** the open nuclear market. In doing so, the U.S. not only helps itself economically but, more importantly, can help to promote the safe and peaceful use of nuclear energy while minimizing or even eliminating the risks of proliferation inherent in the production of nuclear energy.

However, how long can this continue? With the U.S. nuclear energy industry dead domestically for over thirty years, much of the knowledge, technology, and expertise in the field has departed overseas. As time passes, the ability of the United States to control and influence such issues as reactor safety, fuel supply, safeguards, and IAEA monitoring of programs is waning rapidly. If the nuclear power industry remains dormant domestically, how much longer can the U.S. continue to **exert power and influence** on the industry globally while working to promote nonproliferation objectives? Nuclear power expansion at home may be extinct, but the creation of civilian nuclear energy programs internationally is expanding rapidly. Without advances in the field, the need for other countries to strike civilian nuclear agreements with the U.S. will **begin to diminish** and the global leader in nonproliferation efforts will eventually be **forced into a backseat**.

High volume manufacturing key to economies of scale and future market share – your evidence says you do this

Atkinson et al-Breakthrough Institute-9 RISING T IGERS SLEEPING GIANT

<http://thebreakthrough.org/blog/Rising_Tigers.pdf>

Companies that are able to manufacture at the highest volume and the lowest cost will be able to achieve economies of scale and capture learning-by-doing advantages, reducing the prices of clean tech products and securing greater industry market share.

### 1NR A2: US Key

China is a better nonprolif leader---

They support it MORE than the US---proven by a laundry list of treaty violations

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Changing the Guard? China and the Nuclear Nonproliferation Regime

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It is noteworthy that China’s commitment to the nuclear nonproliferation regime continued to deepen despite the negative environment engendered by a number of American policies pursued under President George W. Bush. The American approach to multilateralism during his term in ofﬁce was of great concern to Chinese authorities (Kent, 2008, pp. 65–66). The actions of the United States that were poorly received in China included the American withdrawal from the Treaty on the Limitation of Anti-Ballistic Missile Systems (commonly referred to as the ABM Treaty) in 2002, its withdrawal of formal support for the CTBT, and the negotiating of the United States-India Civil Nuclear Cooperation Initiative–Bilateral Agreement on Peaceful Nuclear Cooperation (Chu & Rong, 2008, p. 179). These concerns have been reinforced by the American National Missile Defense program, which as well as being widely regarded in China as directed against it, has considerable potential to encourage further horizontal nuclear proliferation (Graham & LaVera, 2002, pp. 240–241). The Chinese government stated in 2008 that this “global missile defense program will . . . have a negative impact on the process of nuclear disarmament” (Zhang, 2010, p. 149). The adoption of a more positive approach to nonproliferation multilateralism under President Obama will help to assuage Chinese concerns, but some aspects of American nonproliferation policy remain questionable from a Chinese perspective. While a number of issues—such as perceived general American efforts to dominate and circumvent multilateral nonproliferation mechanisms, the American emphasis on counter-proliferation, and its missile defense program—had and in some cases still have considerable potential to reinforce established Chinese suspicions of multilateralism, this has not resulted in a reversion to China’s former approach to the nonproliferation regime. Chinese authorities continue to harbor some reservations about the regime where issues of objectivity and the rules of engagement of suspected or conﬁrmed proliferators are concerned, and they send mixed signals on nonproliferation on occasion as a result. China remains a less enthusiastic supporter of the imposition of sanctions on actual or suspected proliferators than many other states, but in a remarkable policy transformation, China emerged as a supporter of the nuclear nonproliferation regime in the face of considerable internal threats to its integrity and effectiveness. This demonstrates the importance of multilateral nonproliferation instruments to the Chinese government and the depth of its commitment to this approach.

THE US is unequal in implementation---perceived as neonuclear apartheid making it useless

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

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

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

AND only china can influence the ASIAN market

Lieggi-Monterey Institute’s Center for Non­proliferation Studies-10

From Proliferator to Model Citizen? Strategic Studies Quarterly

<http://www.au.af.mil/au/ssq/2010/summer/lieggi.pdf>

The extent to which China assisted weapons of mass destruction (WMD) and missile programs in countries like Pakistan and Iran has been well documented. Part of China’s past behavior stemmed from a fundamental disagreement with the Cold War structure of the nonproliferation regime; this ambivalence towards nonproliferation led China to undertake politically motivated proliferation activities that meshed with Beijing’s foreign policy needs at the time. In later years, particularly after China’s economy began to open in the 1980s, economic motivations also pushed Chinese entities to transfer WMD–related technologies abroad with little consideration for the ramiications on the nonproliferation regime. As China’s view of the international community (and its own place in it) changed, so too did its policy towards the proliferation of WMD. Much of this change was brought about by a mixture of factors touching on various issues facing Beijing, such as national security interests, economic stability, and international prestige. The factors that most affected China’s actions included signiicant international (particularly US) pressure placed on Beijing in the 1990s to adopt stronger nonproliferation policies, Beijing’s growing recognition that proliferation of WMD was detrimental to its own security interests, and concern within the Chinese leadership about the impact of China-based proliferation on Beijing’s acceptance as a responsible member of the world community. One of the areas within the nonproliferation regime where China has most notably changed in recent years is the field of nonproliferation related trade controls, particularly export controls. 1 In the 1980s and 1990s, China had very little in the way of controls on military-related trade; however, this began to change by the late 1990s. Between 1998 and 2002, China worked to revamp its export control system. Over the course of a few months in 2002, it promulgated a comprehensive set of export control measures for sensitive items related to WMD and other military programs. Most analysts agree that China’s system has improved since the comprehensive rules were adopted and that the system, at least on paper, is in line with international supplier regime standards. 2 Despite the legislative improvements, sales of sensitive dual-use items by Chinese companies to proliferating countries continued to concern the international community and the United States in particular. Many of the problems in the system are caused by insufficient Chinese capacity to enforce its controls. The weakest link in the Chinese export control system, as with many developing systems, is in its ability (and, some would say, political will) to enforce the restrictions that have been laid out in its legis­ lation. his area of China’s export control system has not traditionally been transparent, a fact that has added to uncertainties about Beijing’s will with regards to nonproliferation-related trade control enforcement. Beijing has been hesitant to discuss violation cases publicly, leaving many questions unanswered about its enforcement activities. Beijing has, however, made a few public announcements about export control violations since its system was revamped in 2002. hree such an­ nouncements made between 2006 and 2008 shed some light on the inner workings of China’s export control enforcement, as well as on the chal­ lenges facing it. Each of these three cases is reviewed to assess the status of China’s current enforcement capabilities. The three companies—Zibo CHEMET Equipment Company, Shanghai Smart Chemicals, Ltd., and Jilin Tumen Chemical Light Manufacturing Company—were punished for chemical-related exports, likely to Iran and North Korea. Additionally, a more recent case involving a seized shipment of dual-use materials at a border crossing with North Korea appears to show some improvements in China’s risk assessment and contraband interdiction abilities. his case is also examined. As the case studies show, China is slowly getting over the hurdles of establishing a viable export control system. Its progress in this field can be seen as a model for other countries—particularly those in Asia who face some of the same circumstances and challenges China had in the past decade. At the moment, while Beijing moves closer—however slowly—to international standards in the area of nonproliferation, many countries in Asia have yet to even begin the process of strengthening their systems. The lack of capacity in many Asian countries has had negative implications on the nonproliferation regime. The A. Q. Khan and other proliferation networks have exempliied how Asian nations with weak nonproliferation related controls can become key transshipment points for proliferators, or, as in the case of Malaysia and the Khan network, manufacturing hubs. Therefore, key areas will be identified so other Asian countries might learn from China’s experience while building their own strategic trade control frameworks. In this way, China’s system may prove to be an example for other countries in the region to selectively emulate when strengthening their own export control systems.

#### The turn is bigger than their solvency---Asia is a key hub for proliferation-related exports

Lieggi-Monterey Institute’s Center for Non­proliferation Studies-10

From Proliferator to Model Citizen? Strategic Studies Quarterly

<http://www.au.af.mil/au/ssq/2010/summer/lieggi.pdf>

Similar to China’s pre-2002 export controls, many countries in South­east Asia have systems that are weak and undefined. 54 Until recently, nonproliferation-related trade controls have not been a significant priority for these countries. 55 Similar to Beijing’s earlier views, countries in the region believe export controls strengthen the supplier country’s economies while denying the developing world much-needed technology for economic development. States in the region have also argued that their lack of domestic WMD-relevant programs means that they cannot produce items sensitive enough to justify creating stringent trade control systems. However, the changing state of the world economy and global security is making the establishment of sufficient controls throughout Asia a growing priority. 56 Revelations about Southeast Asian connections in known illicit WMD trafficking networks, both as production nodes and as transshipment points, have highlighted the importance of creating viable nonproliferation-related trade controls in the region. For example, as part of the A. Q. Khan network’s efforts to supply Libya with a nuclear weapons program, a production node was established in Malaysia. The Malaysian owners of the facilities and their workers thought that the contract they were selling was for equipment related to the oil and gas industry; however, under the direction of a number of Khan’s associates, the items being produced were actually centrifuge components. 57 As technological capabilities within the region—particularly within Association of Southeast Asian Nations (ASEAN) member states—expand, so too does their capacity to be a source of sensitive dual use equipment. Possibly even more urgent than controls on exports is the strengthening in the region of controls on transshipment and transiting cargo. ASEAN countries have some of the largest ports in the world, and many have been used as transshipment hubs for WMD-related trafficking. 58 Asian complacency on nonproliferation-related trade controls has been challenged by the changing nature of international security. The issue of nonstate actors and their ability to gain access to WMD-related materials has been an increasing fear, and a number of international mechanisms have been established to cope with this threat to global security. One such mechanism is UN Security Council Resolution 1540 (UNSCR 1540), which was adopted in 2004 and is binding on all UN member states. This resolution mandates all states to “establish, develop, review and maintain appropriate efective national export and transshipment controls over” WMD and related dual-use items. 59 Southeast Asian nations have been somewhat suspicious of UNSCR 1540, seeing it as an unfunded mandate forced upon them by the supplier states. 60 However, as part of the resolution, states are encouraged to assist others with creating systems that can comply with the resolution. The United States and Japan have been particularly active with 1540-related training in Southeast Asia, which has helped wear down some of the resistance in the region to this resolution.